ECORD

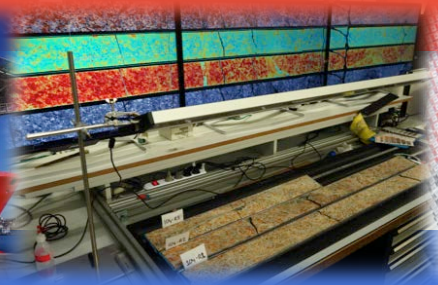
EUROPEAN CONSORTIUM FOR
OCEAN RESEARCH DRILLING

MINUTES

ECORD Council – ESSAC Meeting #6

November 7th–8th, 2018

NWO, The Hague, The Netherlands



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Exec – ECORD Executive Member

November 7th, 2018

INTRODUCTION

1 Self introduction (G. Lüniger)

(9:05)

G. Lüniger opened the meeting and let all the participants begin self-introductions.

2 Logistical information (B. Westerop)

(9:12)

Martijn Deenen, Head of the Earth Sciences Department at the NWO – The Netherlands Organisation for Scientific Research, welcomed the participants and presented the NWO. B. Westerop presented the logistical information.

3 Approval of the agenda (G. Camoin/G. Lüniger/A. Morris)

(9:19)

G. Camoin presented the agenda and the roster. The ECORD Council approved the agenda.

ECORD Council Consensus 18-11-01:
The ECORD Council approves the agenda of the ECORD Council-ESSAC Meeting #6.

In favour: 14, **Abstain**: 0, **Against**: 0, **Absent**: 1

4 Objectives of the meeting (G. Lüniger/A. Morris/G. Camoin)

(9:23)

G. Lüniger presented the main objectives of the meeting: 1) discussion of updated ECORD 2018 budgets; 2) FY20-21 and long-term MSP operational plan; 3) FY19-23 ECORD's budget strategy; 4) post 2023: the future of scientific ocean drilling.

5 ECORD actions and consensus since the Council-ESSAC #5 meeting (N. Hallmann/G. Camoin/G. Lüniger/A. Morris/H. Kinkel)

(9:25)

All actions and consensus statements since the ECORD Council-ESSAC meeting #5 that was held in October 2017 in Southampton, UK, can be found in the agenda book (pages 11-17). N. Hallmann summarized action items, which have not been completed.

Update on the status of non-completed action items:

ECORD Council Spring Meeting #4, Berlin, Germany:
Action Item GC: to send the final version of the ECORD MoU as edited by the CNRS Legal Department together with a version displaying changes to all ECORD Council members
The ECORD MoU is still at the CNRS.

Action Item GC: to circulate the FY19 ECORD budget tables and pie charts to all ECORD Council members
The tables and pie charts will be presented at the ECORD Council-ESSAC Meeting #6 under Agenda Item 7.

Action Item EMA + ESSAC: to circulate a projection for the number of ECORD berths on IODP expeditions for FY19-23 to all ECORD Council members
The information will be presented at the ECORD Council-ESSAC Meeting #6 under Agenda Item 6.

Action Item NH: to circulate the options concerning the update of the ECORD Information Database to the ECORD Council members who will decide on the updates to develop
The ECORD Information Database will be discussed at the ECORD Council-ESSAC Meeting #6 under Agenda Item 32.

Action Item OTF: to check and inform the ECORD Council members regarding GDPR issues in scope of the ECORD Information Database
This will be done while updating the ECORD Information Database.

Action Item OTF: to include an estimation of translation costs in the budgets for materials targeting schools, children and the general public as soon as a 'General public' outreach package budget is approved by the ECORD Council
This item is still on hold until approval of the ECORD 'General public' outreach package.

(9:30)

Expedition #381 « Corinth Active Rift Development » (L. McNeill / D. Shillington)

(10:13)

ECORD BUDGET, MEMBERSHIP AND MANAGEMENT

6 ECORD News (G. Camoin)

(10:13)

G. Camoin presented the ECORD news, the timeline for ECORD's renewal post FY18, the 2018 Scientific Ocean Drilling Bibliographic Database Report and scientific ocean drilling post 2023.

There are following changes in the IODP structure:

1) Dirk Kroon (UK) became the new IODP Chair replacing Jamie Austin (USA) on 1 October 2018. His term will be for three years.
2) Lisa McNeill (UK) will replace Ken Miller as SEP Co-chair on 1 April 2019. Her term will be for three years.

There are following changes in the ECORD structure:

1) Gabriele Uenzelmann-Neben (GER) is EFB Vice-Chair and will become EFB Chair replacing G. Lericolais (FRA) on 1 January 2019. Stephen Gallagher (AUS) and Fumio Inagaki (JPN) will rotate off the Science Board on 31 December 2018 and will be replaced by Fengping Wang (CHN) and Yasuhiro Yamada (JPN), respectively.
2) G. Lüniger (GER) is ECORD Council Chair until December 2018. E. Humler (FRA) is the incoming Vice-Chair from 1 July 2018 until 31 December 2018 and will become ECORD Council Chair starting on 1 January 2019.
3) A. Morris (UK) is ESSAC Chair until 31 December 2019. J. Behrmann (GER) is outgoing Vice-Chair until December 2018.
4) R. Gatliff (UK) – ESO Chair – rotated off in March 2018.
5) P. Maruéjol (FRA) will rotate off on 30 June 2019 and will be replaced by the new EMA Outreach Officer Malgorzata Bednarz who will start her term on 1 January 2019.

G. Camoin continued to present the rotation scheme for the ECORD Council. E. Humler (FRA) will become ECORD Council Chair starting on 1 January 2019 and G. Lüniger (GER) will be outgoing Vice-Chair during the first half of 2019. A nomination is needed for an incoming ECORD Council Vice-Chair starting on 1 July 2019. The decision needs to be done at the ECORD Council Spring Meeting #5.

Rotation scheme	Chair	Country	Vice Chair
Oct 12 - March 13	Mike Webb	UK	Anne De Vernal
April 13 - Dec 13	Mike Webb	UK	Guido Lüniger
Jan 14 - Jun 14	Guido Lüniger	Germany	Mike Webb
Jul 14 - Dec 14	Guido Lüniger	Germany	Michel Diament
Jan 15 - Jun 15	Michel Diament	France	Guido Lüniger
Jul 15 – Dec 15	Michel Diament	France	Magnus Friberg
Jan 16 – Jun 16	Magnus Friberg	Sweden	Michel Diament
Jul 16 – Dec 16	Magnus Friberg	Sweden	Mike Webb
Dec 16 - Jun 17	Mike Webb	UK	Magnus Friberg
Jul 17 - Dec 17	Mike Webb	UK	Guido Lüniger
Jan 18 - Jun 18	Guido Lüniger	Germany	Mike Webb
Jun 18 - Dec 18	Guido Lüniger	Germany	Eric Humler
Dec 18 - Jun 19	Eric Humler	France	Guido Lüniger
Jun 19 - Dec 19	Eric Humler	France	TBN

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), E. Humler (FRA), M. Sacchi (ITA) and B. Westerop (NLD).

ECORD renewal post FY18:
The ECORD renewal will be at the national level. ECORD's renewal will mostly rely on 1) science results measured against the Science Plan over the first phase of IODP, 2) the success of ECORD's financial model for platform operations during the first phase of IODP, and 3) the operational plans for all IODP platforms during the second phase of IODP. Following ECORD's external evaluation in February-June 2017, the ECORD MoU was updated in January 2018 and is at the moment still at the CNRS Legal Department for a final check. The ECORD MoU will be distributed as soon as possible for approval and signature by the ECORD funding agencies. The current ECORD MoU is still active until the end of the programme in 2023 and will be replaced by the new ECORD MoU as soon as it is finalized.

G. Camoin continued to summarize ECORD's partnership with the US and Japan. ECORD contributes $7M USD to the annual funding of the *JOIDES Resolution* and about $1M USD to the annual funding of the *Chikyu*.
The NSF-ECORD MoU will be effective until 30 September 2019. The ECORD-NSF MoU was revisited and is still at the CNRS Legal Department. The new ECORD-NSF MoU will be in place on 1 October 2019 until 30 September 2023. ECORD and the NSF agree that for the new programme phase ECORD will continue contributing $7M USD per year to the *JOIDES Resolution*. There will only be a change in the number of ECORD scientists on *JR* expeditions. Seven instead of eight ECORD scientists will sail on each *JR* expedition. In the new phase Co-chief Scientists and Education/Outreach Officers will be counted against participation levels on *JR* expeditions. In addition, one ECORD member is

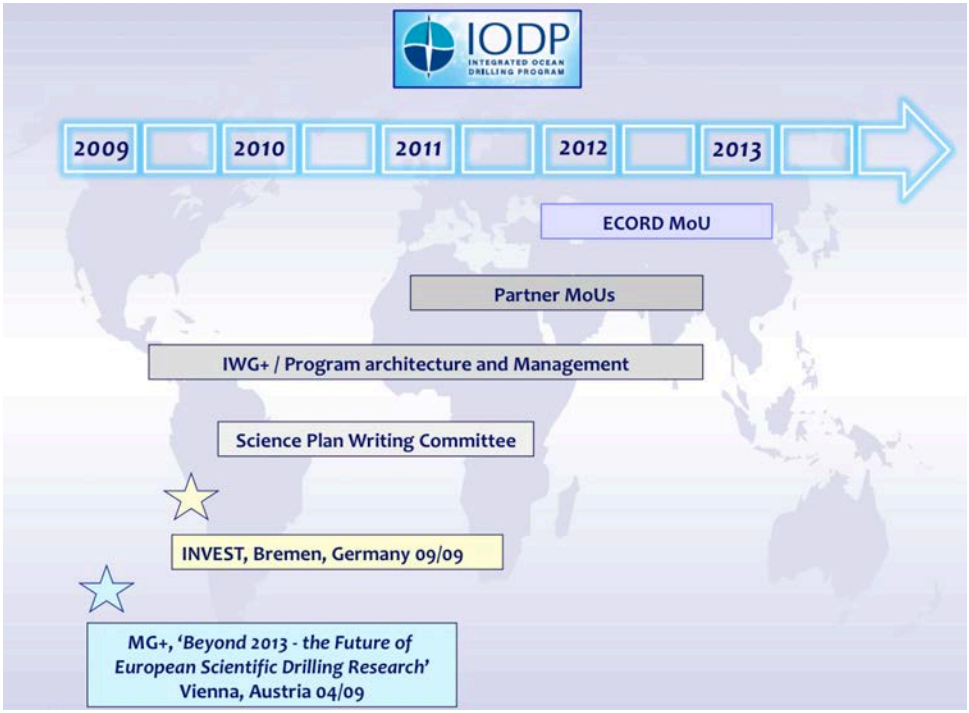
member of the *JR* Facility Board Board. The estimated number of ECORD berths for the 2019-2023 period is of 140 based on the implementation of four *JR* expeditions per year. The ECORD-JAMSTEC MoU was not revisited as it is valid until 30 September 2023. Usually at least three ECORD scientists are sailing on a *Chikyu* expedition. Co-chief Scientists and Education/Outreach Officers will not be counted against participation levels on *Chikyu* expeditions. In addition, one ECORD member is member of *Chikyu* IODP Board. The estimated number of ECORD berths for the 2019-2023 period is of 12-28 based on the implementation of four *Chikyu* expeditions.
Concerning the MSP expeditions, 8 US and 5 associated members, 4 Japanese and at least 10 ECORD scientists are sailing. In addition, 1-3 berths are reserved for co-funded projects. In the new phase Co-chief Scientists and Education/Outreach Officers will not be counted against participation levels on MSP expeditions. In addition, one NSF and one MEXT representative are members of the ECORD Facility Board. The estimated number of ECORD berths for the 2019-2023 period is of 40-60 based on the implementation of four MSP expeditions. Overall, the estimated number of ECORD berths for the 2019-2023 period is of 192 to 228.

2018 Scientific Ocean Drilling Bibliographic Database Report:
(see http://iodp.tamu.edu/publications/AGI_studies/AGI_study_2018.pdf)
ECORD contributed 10,764 publications related to all ocean drilling programs (1969-June 2018). The number of completed theses and dissertations based on Program Science is much lower compared to the United States (104 vs. 310 dissertations between 1969 and 2018). However, theses and dissertations are underreported to the AGI [American Geosciences Institute – GeoRef database]. Publication records for expeditions 301-366 and 370 (2003-2018) show the relative high number of publications for MSP expeditions. Like for the number of theses and dissertations, the number of publications is underreported. MSP Expeditions 302 and 310 are among the most cited IODP Expeditions. Publication records for MSP Expeditions 310 and 325 should be merged as they are based on one proposal. High-impact papers in journals such as *Nature*, *Science* and *Geology* are published on the ocean drilling programmes. Of the 10 most cited IODP expedition-related publications seven are associated with IODP-1 and three with ODP. Four of those are related to MSP Expeditions 302 and 310. Based on the number of publications, Earth Connections is the primary theme (2013-2018).

G. Camoin presented the content of the ECORD Annual Report 2018. The call for contributions will be distributed soon after the ECORD Council-ESSAC meeting #6. The deadline for submission of contributions will be on 31 December 2018. The review of all sections will be done until 13 January 2019 and the further editing until the end of February. Printed copies will be sent on 15 March 2019.

50th anniversary: An EGU Union Symposium on 50 years of International Ocean Drilling was organised at the EGU 2018. The conveners were H. Weissert, G. Panieri and G. Camoin. For further information see https://client.cntv.at/egu2018/us4.

Post 2023 scientific ocean drilling: G. Camoin presented a timeline showing the preparation of the International Ocean Discovery Program:



A Special Call for proposals was issued for the organisation of a MagellanPlus workshop on "Initiating concepts for a future scientific ocean drilling programme to be developed beyond 2023". However, no application was received. Consequently, the ECORD Council endorsed EMA to use the MagellanPlus undespent of 15,000 € for the organisation of a conference in spring 2019 with the aim of preparing a future scientific ocean drilling programme beyond 2023. See Agenda Item 16. Similar workshops will be organised in the USA, Japan, China and Australia-New Zealand.

G. Camoin listed the upcoming ECORD and IODP meetings.

COMMENT on post 2023 scientific ocean drilling workshops:
The date of the JRFB meeting has been shifted by one day (8-9 May 2019). A steering committee was assembled and will be co-chaired by Anthony Koppers and Jim Wright from USSSP. A brief US-only meeting will be held at the AGU 2018. A workshop on "Scientific Ocean Drilling post 2023" with international participation is planned on 6-7 May 2019 in Denver (C. Brenner).

DISCUSSION on IODP publications:

D. Kroon highligthed that 200 abstracts mentioning IODP were submitted for the AGU 2018. He questions if the costs for one publication could be calculated and compared to other programmes. The Swedish Academy of Sciences calculated these costs for all science topics in Sweden and came up with $100,000 USD per publication (G. Lüniger). Salaries make this calculation difficult (G. Ceuleneer). In the statistics France is considered as a poor contributor as salaries are not included. It will be difficult to get accurate data (G. Ceuleneer).

(10:41)
coffee break
(11:08)

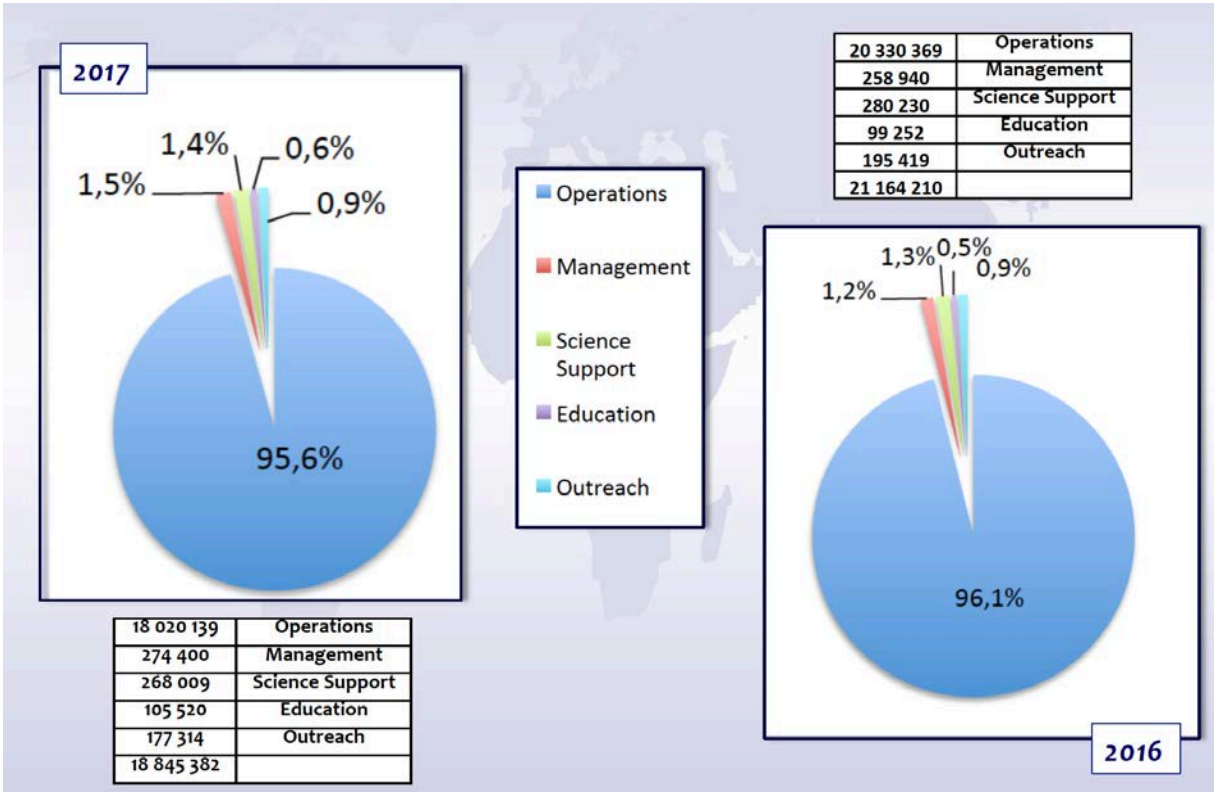
7 ECORD budget and updated EMA 2019 budget (G. Camoin)

(11:08)

G. Camoin summarized the ECORD memberships, annual contributions and expenses. At the moment ECORD has 15 member countries. ECORD's annual budget usually ranges between $17M and $19M USD, mainly due to fluctuations in the currency exchange rates, because not all countries are paying in dollars. France, Ireland and Spain are paying in euros, Denmark in krones and the UK in pounds. However, this budget range does not include additional project-based cash and in-kind contributions. Annual national IKCs and science costs which are in the order of about $7M USD are also not included. ECORD spends every year $0.75M USD for science, education, outreach and management. The fixed operational costs are of $2.3M USD per year. About 95% of the ECORD budget is spent on IODP expeditions. ECORD contributes $7M USD to the annual funding of the *JOIDES Resolution* and $1M USD to the annual funding of the *Chikyu*. Every year ECORD has a budget of $6.5M to $7M USD available to implement MSP expeditions.

ECORD funds the MSP operations, the access to the other IODP drilling platforms, the support of the ECORD entities, the BCR, the MagellanPlus programme, the IODP panel (co-) Chairs and IODP publications related to MSP expeditions. ECORD does not fund travel expenses for scientists to participate in cruises and panel meetings, pre-cruise and post-cruise science and the support of the EFB Chair activities.

G. Camoin summarized the ECORD budgets for FY16 and FY17 by categories:



G. Camoin summarized the ECORD budget situation for FY18 (Tables 1, 2).

Table 1: FY18 member contributions

FY18 Contributions (US$)	
Germany	5,600,000
France *	4,258,000
UK *	3,330,000
Norway	1,100,000
Switzerland	600,000
Sweden	528,000
Italy	500,000
Netherlands	500,000
Spain *	168,000
Denmark *	158,000
Ireland *	117,000
Austria	100,000
Portugal	90,000
Finland	80,000
Canada	30,000
TOTAL	17,159,000
** Contributions in other currencies*	

Table 2: ECORD FY18 budget

	FY18 Income (USD)	FY18 Expenses (USD)
FY 17 balance	9,529,808	
FY 18 contributions	17,159,000	
ECORD-NSF MoU		7,000,000
ECORD-JAMSTEC MoU		0 *
ESO		2,811,526
EMA		300,560
MagellanPlus		124,000
ECORD Outreach		66,400
ESSAC		294,158
BCR		332,093
TOTAL	26,688,808	10,928,433
Expected FY18 balance	15,760,375	
** Payment ($1M) deferred to 2019*		

FY17 ended with a positive balance of $9.53M USD, which was carried over to FY18. Together with the FY18 member contributions of $17.16M USD (Table 1), the FY18 income will yield $26.69M USD. The expenses will be of $10.93M USD without the implementation of an MSP expedition in 2018. The payment for the *Chikyu* could be delayed to 2019. FY18 should finish with a positive balance of $15.76M USD (Table 2). Potential additional contributions (cash, IKCs) are not considered in this calculation.

The assumed FY19 contributions will be of $17.16M USD (same as FY18, see Table 1). Together with the positive FY18 balance the FY19 income will yield $32.92M USD. The FY19 budget includes the 3-year payment (2017-2019) for the *Chikyu*. The budget items EMA and ECORD outreach highlighted in red in Table 3 still need to be discussed and revised. The ESO budget* was revised and needs to be approved during this meeting. The IODP publication support includes the special *Oceanography* issue to celebrate 50 years of scientific ocean drilling (see ECORD Council consensus 17-10-17 and 18-06-07). Potential additional contributions (cash, IKCs) are not considered in this calculation.

Table 3: ECORD FY19 budget

	FY19 Income (USD)	FY19 Expenses (USD)
FY 18 balance	15,760,375	
FY 19 contributions	17,159,000	
ECORD-NSF MoU		7,000,000
ECORD-JAMSTEC MoU		3,000,000 *
ESO		? **
EMA		358,386
MagellanPlus		88,800
IODP Chairs Support		144,000
IODP publ. Support		15,000
ESSAC		315,606
BCR		353,109
Outreach basic		66,400
Outreach stakeholders		11,200
Outreach expeditions		30,000
ECORD database		18,000
TOTAL	32,919,375	?
Expected FY19 balance	?	
* *Payments 2017 - 2019*		
** *Including Exp. 389*		

* See confidential annex.

G. Camoin continued to present the predictions for the ECORD FY19 to FY23 budgets (Table 4*). The contributions are based on the 2018 ECORD member contributions, and additional cash and in-kind contributions are not considered in this calculation. FY19 includes the costs for the implementation of Expedition 389 'Hawaiian Drowned Reefs'. This projection also includes the deferred payments to JAMSTEC to be paid in FY19. The calculation includes an annual 1.5-2% increase of the ECORD fixed costs.

G. Camoin presented the FY19 EMA budget. In June 2018 the ECORD Council approved the FY19 EMA budget of $321,237 USD (ECORD Council consensus 18-06-02). P. Maruéjol will retire on 30 June 2019, i.e. there will be a 6-months overlap as the new EMA Outreach Officer will start on 1 January 2019. Furthermore, the EMA Outreach Officer salary needs to be determined by the CNRS administration and there will be an increase in the university and CEREGE overheads. The updated FY19 EMA budget will be sent by email to the ECORD Council members for approval.

QUESTION about FY19 EMA budget:
G. Lüniger asked when the proposal for the updated FY19 EMA budget will be sent to the ECORD Council members. The revised FY19 EMA budget will be circulated at the end of November 2018 (G. Camoin).

8 ESSAC News (A. Morris)

(11:19)
A. Morris gave an overview of the ECORD members on the Science Evaluation Panel (SEP), national support for (non-subscription) IODP activities, the Distinguished Lecturer Programme (DLP) 2018/19 and the ECORD Research Grants.

There are following changes in the ESSAC membership: John Jamieson (Canada) and David Hardy (Ireland) are new ESSAC delegates. A call for a new ESSAC Chair was opened but no application was received. A new call will be reissued in 2019 and an incoming Vice-Chair should be appointed at the next ESSAC Spring Meeting.

ECORD members on SEP: Lisa McNeill will be the new Co-Chair of SEP Science. New members appointed in 2018 are highlighted in green in Table 5. Continuing members are shown in black and members who will rotate off in May 2019 are highlighted in red in Table 5. In May 2019 four SEP Science and three SEP Site members need to be replaced. A call for seven new SEP members will be issued by the end of 2018 with a deadline at the end of February 2019.

* See confidential annex.

Table 5: ECORD members on SEP

Name	Country	Term	Expertise
SEP SCIENCE:			
McNeill, Lisa (Co-Chair)	UK	Apr 19 – Mar 22	Tectonics
Pickering, Kevin	UK	Jun 17 – May 20	Sedimentology
Kallmeyer, Jens	GER	Jan 16 – May 19	Geo-microbiology
McCaig, Andrew	UK	Jan 16 – May 19	Petrology/Structure
Piller, Werner	AUT	Jan 15 – May 19	Carbonate sed/Micropaleo
Villinger, Heiner	GER	Jun 16 – May 19	Marine geophysics
Bassetti, Maria-Angela	FRA	Jun 18 – May 21	Stratigraphy/Sedimentology
Delacour, Adélie	FRA	Jun 18 – May 21	Petrology/Geochemistry
Tachikawa, Kazuyo	FRA	Jun 18 – May 21	Geochemistry/Paleoclimate
SEP SITE:			
Rebesco, Michele	ITA	Jun 17 – May 20	Seismics
Bell, Rebecca	UK	Jun 16 – May 20	Seismology/Seismics
Campbell, Calvin	CAN	Jan 16 – May 19	Geophysics/Seismics
Géli, Louis	FRA	Jun 16 – May 19	Geohazards
Riedel, Michael	GER	Jun 16 – May 19	Seismics/Gas hydrates

A. Morris summarized the national support for (non-subscription) IODP activities:

	AUT	CAN	DEN	FIN	FRA	GER	IRE	ITA	NED	NOR	PRT	ESP	SWE	SUI	UK
Post-cruise research funding	Yes	No	No	No	Yes	Yes	Yes	Yes	No	No	No	Poss	No	No	Yes
Workshop and short course support	Yes	No	No	No	Yes	Yes	Yes	Yes	No	No	No	No	No	No	Yes
Pre-drilling activities	Poss	No	No	No	Yes	Poss	No	Yes	No	Yes	No	No	No	Poss	Yes
Support for panel members	Yes	No	No	?	Yes	Yes	Yes	Yes	Yes	Yes	Poss	?	No	Yes	Yes

Pre-drilling activities include the attendance of pre-drilling workshops, site survey activities, etc. The majority of ECORD nations is able to support panel members, but some countries cannot offer this support, and therefore, these nations are excluded from having IODP panel members. ECORD Council members from the respective countries might consider the possibility to provide this support.

Distinguished Lecturer Programme (DLP): A. Morris presented the four DLP lecturers for the 2018/19 time period. Four speakers who cover the themes of the Science Plan were selected: Luc Beaufort (FRA) for 'Climate and Ocean Change', Verena Heuer (GER) for 'Biosphere Frontiers', Rebecca Bell (UK) for 'Earth in Motion' and Margot Godard (FRA) for 'Earth Connections' were selected. A call to host a Distinguished Lecturer was issued with the deadline to apply until 15 October 2018. Overall, 27 applications were received. The requests for hosting a lecture came from nine ECORD nations, two IODP nations and two non-IODP nations. ESSAC decided not to send the DLP lecturers to the IODP nations India and the USA due to the limited available budget unless the host institutes are able to pay for the travel costs. ESSAC decided to send the DLP lecturers to non-IODP nations, the former ECORD members Belgium and Israel, to encourage them to get involved again in IODP. On average, each DLP lecturer will give six lecturers. The annual DLP budget is of 13,000 €.

A joint session was organised by ECORD/IODP and ICDP at the EGU 2018 on "Achievements and perspectives in scientific ocean and continental drilling" with 25 oral and poster contributions. There are plans for a joint ECORD/IODP-ICDP session at the EGU 2019 similar to the format and scope of the EGU 2018 session.

ECORD Research Grants: Twelve high-quality proposals from young scientists to work on DSDP-ODP-IODP cores or data were received. The total budget is 18,000 € and top-ranked research grants will be funded with up to 3,000 €. Seven research grants were awarded to young researchers from four different countries with a budget per proposal ranging from 2,000 to 2,800 €.

QUESTION about the call for the new ESSAC Chair:
G. Lüniger asked why no apllications for the new ESSAC Chair were received. One issue could be a bad timing as the call was open over summer. Another problem could be that the call was too far ahead of the actual start of the position. The next ESSAC Chair would be first Vice-Chair for one year before starting as ESSAC Chair for two years and an additional year as outgoing ESSAC Vice-Chair (A. Morris). Jan Behrmann kindly agreed to stay as ESSAC Vice-Chair until a new incoming ESSAC Vice-Chair has been appointed (A. Morris).

9 News from ECORD member countries (Council & ESSAC Delegates)

(11:31)
ECORD Council and ESSAC delegates presented the news from their respective country.

B. Plunger (**Austria**): Austria has a small but active scientific ocean drilling community. At the moment, Austria is involved in three IODP Expeditions. Michael Strasser and Dominik Jäger are currently involved in IODP Expedition 358 'NanTroSEIZE Plate Boundary Riser 4'. M. Strasser serves also as an alternate for B. Plunger and W. Piller.

The PROCEED – Ex**p**anding F**ro**ntiers of S**ci**ntific Oc**e**an **D**rilling – will be hosted on 6-7 April 2019 at the Austrian Academy of Sciences in Vienna. The 50th anniversary of scientific ocean drilling will be celebrated on 19 November 2018 at the Austrian Academy of Sciences in Vienna. Austria has a good possibility for mid-term planning of the budget. The new contract started at the beginning of 2018 and the budget situation is stable.

J. Jamieson (**Canada**): One Canadian scientist (J. Jamieson) sailed on IODP Expedition 376 'Brothers Arc Flux'. In 2012 the programme that supported Canada's participation in IODP was cut by the previous government. For the last few years the participation in IODP was supported by individual contributions from scientists and institutions. The new government is more supportive of science. There has been a recognition that the programme that was cut needs to be replaced and that Canada needs to support programmes like IODP. The Canada Foundation for Innovation (CFI) wants to take over these kind of memberships. They are using IODP as their primary example for supporting memberships. In autumn 2019 Canada could announce an annual contribution to ECORD greater than 10-20 times what Canada is contributing at the moment. Canada could become again an active ECORD member. There is a lot of enthusiasm, for example, there is a lot of interest in the DLP and Canadian scientists will attend the 2019 PROCEED conference. The Canadian community is interested to continue to be a member of ECORD.

K. Stenbjørn (**Denmark**): Denmark expects to continue its ECORD membership at the same level as it is at the moment. The final decision will be official when the 2019-2023 ECORD MoU was signed. The national budgets need to be approved.

M.-S. Seidenkrantz (**Denmark**): Denmark hosted a MagellanPlus workshop on "Greenland Ice Sheet evolution revealed by drilling a transect on the Baffin Bay - West Greenland margin (909-Full)" on 12-14 September 2018 in Copenhagen. The full proposal has been submitted and is currently under evaluation. In addition, a Danish PhD student has sailed and submitted her PhD. She is planning to seek funding for a Postdoc working on this material. One Danish young scientist received an ECORD Research Grant to work on IODP material.

M. Räisänen (**Finland**): The Academy of Finland has committed until the end of the current programme in 2023. The current level of funding will remain.

J. Virtasalo (**Finland**): The scientific activities are mostly focused on IODP Expedition 347 'Baltic Sea Paleoenvironment'.

G. Ceuleneer (**France**): According to Eric Humler the INSU-CNRS will continue their support to IODP. The administrative form of the French contribution to IODP is a large infrastructure and there is no reason to reduce the French contribution. Eric Humler

mentioned that there are ongoing discussions at the CNRS on possible effects of the Brexit. France has to improve its participation in IODP. In 2019 four Postdocs will be supported to work on material from recent IODP expeditions but also on DSDP material. There was a major reorganisation of the management of the French oceanographic fleet. So far, the fleet was managed by different institutes, such as Ifremer, the French polar institute and also the CNRS. Recently, the management was merged into a single entity based at the Ifremer and the new scientific Council is composed of 12 members, including four non-French members. This structure is in charge of the science plan and the development of new tools to reach the scientific objectives in harmony with the other European fleets. G. Ceuleneer is the IODP representative to serve at this new scientific Council. The first meeting for this new committee will be in December 2018.

G. Lüniger (**Germany**): Germany has not yet the final approval for the next phase of the programme, but the decision is expected at the latest in spring 2019. The funds for scientific projects related to ICDP and IODP were increased from $2.3M to $2.6M USD per year.

J. Erbacher (**Germany**): Parts of the annual IODP-ICDP meeting were dedicated to the 50-years celebration of scientific ocean drilling. At this occasion Benoît Ildefonse and Paul Wilson gave a keynote talk. Two articles will be published soon in GMIT, a German Geoscience magazine, and in the DFG journal *forschung*. Germany is getting prepared for the upcoming PROCEED conference. A workshop will be held in January 2019 in Lüneburg and 30 young, DFG-funded scientists were invited.

K. Verbruggen (**Ireland**): The financial situation is stable. Two Irish scientists sailed on IODP Expedition 372 'Creeping Gas Hydrate Slides and Hikurangi LWD'. Two Irish scientists are planning to attend the PROCEED workshop. There are ongoing discussions in the Irish research community on the *JR* returning to the Northern Atlantic. In 2018 a research cruise was succesfully implemented and results from this cruise will be part of a drilling proposal.

L. de Santis (**Italy**): Italy plans to keep the same level of its contribution to ECORD. The interest in IODP by the Italian community is growing. Italy is working well on different outreach activities and there are many young, enthusiastic scientists. Many Italian scientists are involved in active proposals. In 2017 Italy hosted two MagellanPlus workshops: 1) "Structure and Evolution of Magmatic and Hydrothermal Volcanic Systems in offshore collapse/resurgent calderas – Development of an IODP Drilling Proposal at Campi Flegrei linking to active ICDP Drilling Initiatives" on 25-28 February 2017 in Naples and 2) "Tyrrhenian Magmatism & Mantle Exhumation (TIME)" on 5-7 June 2017 in Bologna. The first School of Rock in Italy was organised on 24-27 July 2018 in Pavia. A video on the Antarctic drilling history since the first leg in 1973 was produced. This video was produced by a US videographer who sailed on IODP Expedition 374 'Ross Sea West Antarctic Ice Sheet History'. See the 11-minutes video at

http://www.scar-pais.org/index.php/news/16-scientific-news/59-antarctic-scientific-drilling-a-long-history-added-narration. Many expedition blogs were produced, which are also used in schools. After coming back from the Ross Sea an event with lectures was organised in March 2018 in Lyttelton, New Zealand. An IODP booth will be organised at the Festival del Mare 2019 in Genova. In summer 2019 a past-Antarctic ice-sheet and IODP School co-funded by USSSP and the Past Antarctic Ice Sheet Programme will be organised at College Station, USA.

A. Argnani (**Italy**): The Italian community is very interested in IODP and Italy plans to issue some grants to help young scientists to study archive material.

B. Westerop (**Netherlands**): The final decision on the Dutch contribution to ECORD will be made soon. There will be one more meeting to discuss the contribution.

L. Lourens (**Netherlands**): The Netherlands are overquota and therefore only one Dutch scientist sailed in 2018 on Expedition 374 'Ross Sea West Antarctic Ice Sheet History'. From next year onwards the IODP Annual Meeting will be merged with the national meeting on Earth Sciences in the Netherlands. At the 2017 IODP Annual Meeting Jan van Hinte was awarded the *Van Waterschoot van der Gracht* medal. There are some ongoing outreach activities, for example, there are some video clips on climate related topics on the website *Tipping Point Ahead!* under the umbrella of the Netherlands Earth System Science Centre (NESSC – http://www.nessc.nl).

H. Kleiven (**Norway**): Norway will continue with full funding for the next phase of the programme. Besides the Research Council there is a new funder, the Ministry of Petroleum and Energy. The next Norwegian IODP generation sailed and will be sailing on IODP Expeditions 358, 377, 379 and 381. There is also a lot of interest for Antarctic research and Norway is very interested when the *JR* is coming into the North Atlantic. During the week of 29 October 2018 a national IODP Meeting with 50 people from academia and industry was organised. The themes on the first day were research based on scientific drilling in high northern latitudes, research from recent drilling operations and planned drilling operations in high northern latitudes. The second day was devoted to have a workshop on PROCEED where the group was devided following the four IODP science themes. Future endeavors and potential new technologies were discussed. The plan is to write a White Paper until the PROCEED conference.

F. Abrantes (**Portugal**): During the week of 29 October 2018 it was decided that the funding should be maintained at the current level until the end of the programme in 2023. At the moment, Portugal is paying for the participation of scientists in IODP expeditions and the post-cruise meetings. The organisation of an ECORD-IODP National Day is planned for 2019 related to the 50-years celebration of scientific ocean drilling.

A. Voelker (**Portugal**): The community is working on archive material. Portuguese scientists from the seismic-geophysics community are involved in preparing an IODP proposal and they plan to submit an application for a MagellanPlus workshop to be hosted in Lisbon.

J. Henderiks (**Sweden**): The Swedish Research Council stated to continue the membership support until the end of the current programme in 2023. The final approval is still pending. There will not be any changes in the ECORD delegation until the end of 2019. Sweden has a small but highly international community with active participation in past and future IODP expeditions. One Swedish scientist will sail on IODP Expedition 379 'Amundsen Sea West Antarctic Ice Sheet History'. Unfortunately, another Swedish scientist had to decline the invitation for IODP Expedition 382 'Iceberg Alley Paleoceanography and South Falkland Slope Drift'. No IODP Days were organised in Sweden as the community is very small. In October 2018 the first Swedish scientific drilling workshop was organised at the University of Uppsala. The workshop was jointly organised by IODP, ICDP and EPOS. This was a valuable possibility to reach out to the ICDP community in Sweden. The PROCEED workshop was announced.

M. Kern-Lütschg (**Switzerland**): In 2018 the Swiss National Science Foundation (SNSF) has evaluated a proposal by the Swiss drilling community to continue the ECORD membership. In October 2018 it was decided to continue the ECORD membership at the same level until the end of the current programme in 2023.

G. Früh-Green (**Switzerland**): In 2018 no Swiss scientist sailed on an IODP expedition. In 2017 two scientists plus one scientist following a Special Call were sailing. In 2019 two scientists from the ETH in Zurich will be sailing. Every other year a Swiss Drilling Day is organised (the last one was in 2017). IODP work was presented at the Swiss Geosciences Meeting, which takes place every year. At the 2018 Swiss Geosciences Meeting a Special Session related to the 50th anniversary of scientific ocean drilling will be organised with Dick Kroon as keynote speaker.

A. Morris (**UK**): The renewal process is well advanced. An initial renewal document was very positively received by the funding agencies. At the moment a second renewal report is under consideration. A major development for the UK is the appointment of Dick Kroon as IODP Forum Chair and Lisa McNeill as SEP Co-Chair. Many UK candidates are applying to sail on IODP expeditions. In September 2018 a two-days meeting was held at the National History Museum in London to celebrate 50 years of scientific ocean drilling. New educational material was created based on IODP Expedition 360 'SW Indian Ridge Lower Crust and Moho' with Chris McLeod from Cardiff University as Co-chief Scientist (see https://www.seafloorspreading.com). Chris McLeod was able to get IODP science in the national curriculum for Earth Sciences.

MSP OPERATIONS & ECORD FACILITIES

11 EPC Report (S. Davies)

(12:13)

S. Davies presented the activities of the European Petrophysics Consortium (EPC): equipment & measurements, post-expedition activities, preparation for upcoming expeditions, education and outreach.

The EPC comprises the University of Leicester and Géosciences Montpellier. The EPC provides petrophysics staff scientists and petrophysicists, and expertise in downhole logging and core petrophysics programmes. The EPC has dedicated equipment for core logging and discrete measurements. Furthermore, the EPC is involved in data calibration, quality control, evaluation and interpretation of these data. As part of ESO, the EPC is involved in post-expedition activities, the preparation of upcoming expeditions, capability development and training for IODP MSP expeditions and other key activities, including education and training.

IODP Expedition 381 'Corinth Active Rift Development': Ephemeral properties and natural gamma radiation measurements have been done offshore using extended capabilities. The stackable ultra-slimline tools have been used again as it was very successful during IODP Expedition 364. One tool string was lost-in-hole at M0078A, but good quality data were recorded in part of hole M0079A and in hole M0080A. During the pre-onshore measurement phase thermal conductivity has been measured. During the Onshore Science Party EPC and MARUM staff performed moisture & density (MAD) and discrete P-wave measurements, digital linescans, color reflectance spectrophotometry, P-wave velocity and geotechnical measurements.

Education, training & outreach: EPC is present on the Social Media and has its own blog. In 2018, EPC was involved in the ECORD Summer School in Bremen and hosted the third ECORD Petrophysics Summer School in Leicester. Twenty-one participants from five countries by institution and ten countries by nationality attended the Petrophysics Summer School. EPC staff was present at the UK-IODP 50th Anniversary Meeting and a talk about downhole logging, petrophysics and IODP was given at the London Petrophysical Society. Furthermore, EPC was also engaged in the 3rd School of Rock (December 2017) and the 5th ECORD Training Course (April 2018).

IODP Expedition 389 'Hawaiian Drowned Reefs': Preparation for the upcoming MSP operation includes discussions with ESO and EPC partners on operations, timings, permitting, certificates, measurements and equipment. The MSCL source permitting started and Software updates were ordered. Equipment maintenance and checking started.

A new IODP Research Associate will be interwiewed mid-November 2018.

EPC produces an Annual Report and has a website (http://www.le.ac.uk/epc).

(12:27)
lunch break
(13:20)

10 ESO Report and 2019 budget (D. McInroy)

(13:20)

D. McInroy presented an update on the scoping of 1) Proposal #887 'Gulf of Mexico Gas Hydrates', 2) Proposal #866 'Japan Trench Paleoseismology', 3) Expedition 377 'Arctic Ocean Paleoceanography' and 4) Expedition 373 'Antarctic Cenozoic Paleoclimate'. There is no change in the scoping status of Proposal #637 'New England Hydrogeology' and Proposal #730 'Sabine Bank Sea Level' since the EFB 2018 meeting. D. McInroy summarized the plannning for Expedition 389 'Hawaiian Drowned Reefs', which will be implemented in 2019.

IODP Proposal #887 'Gulf of Mexico Gas Hydrates'

This proposal was forwarded from the JRFB to the EFB as the *JR* is not able to conduct this expedition. ESO considered operational strategy options and costs, and presented these to the EFB in September 2018. This project is funded by the US Department of Energy. Many aspects of this expedition lay outside ESO's immediate expertise. So far, no MSP expeditions have targeted areas with hydrocarbon accumulations. Given the complexity of this project it is recommended to jointly implement this expedition with the University of Texas. Many aspects of this project, such as health and safety aspects, permitting, driling and coring/pressurised coring contract, logging while drilling and downhole logging contract and probably also the pressurised core analysis contract, should be delegated to the University of Texas. ESO would take care of core curation and IODP-MSP standard measurements, provide the associated containerised laboratories and manage the science, Science Party and OSP. The MSP Third-Party Tools and Instruments Policy would apply. ECORD would fund the University of Texas directly for operations, and fund ESO for science, offshore labs and the OSP. The earliest practical year for this proposal is early 2021. D. McInroy presented the costs for this expedition*.

* See confidential annex.

IODP Proposal #866 'Japan Trench Paleoseismology':
ESO and CDEX held a video conference on 3 September 2018. There are 18 primary sites and 40 mbsf giant piston coring is planned at each site at water depths of 7250-8030 m. The most likely platform is the Japanese RV *Kaimei* equipped with a 40 m giant piston corer. This vessel is likely to be available after March 2020. CDEX colleagues are investigating if they can apply for ship time on ESO's behalf. There are several operational possibilities: 1) offshore coring with the RV *Kaimei* and OSP in Bremen; 2) offshore coring with the RV *Kaimei* and OSP on the *Chikyu*, and 3) the whole expedition implemented by the *Chikyu* (not as MSP). The third option is unlikely as it would not be an efficient option. For logistical and cost reasons the *Chikyu* would be more appropriate for the OSP than the MARUM in Bremen. *Chikyu* would be in the dry dock in mid-2020. There are discussions on IKC(s) with the provision of the RV *Kaimei* and/or the *Chikyu* (for the OSP) for an IODP-MSP expedition. The level of IKC(s) still needs to be negotiated between ECORD and JAMSTEC. D. McInroy presented the costs for this expedition*.

IODP Expedition 377 'Arctic Ocean Paleoceanography (ArcOP)': The Russian IKC has not been forthcoming. ESO kept pursueing an IKC from the Russian Federation until March 2018. Repeated requests from the British Embassy in early 2018 did not get any response. In March 2018 the EFB postponed ArcOP, but considers ArcOP as a top priority for this phase of IODP. Currently, there are a few Russian nuclear icebreakers in service. One is in service in 2019, but reserved by the Swiss Polar Institute. Only three nuclear icebreakers are currently operating and another three are being commissioned. The conclusion was that ArcOP cannot be implemented before 2020, probably 2021.
The primary icebreaker must be secured by a fully-funded contract. A relationship with Russian supplier(s) needs to be build. ESO recommends subcontracting ice management and vessels in its entirety. The ideal secondary icebreaker is the Swedish *Oden*. The Swedish Polar Research Secretariat (SPRS) has provisionally reserved the *Oden* to support this expedition from 2021. It was informally indicated that the *Oden* could be available as an IKC (excluding fuel), but this would need a proposal from Swedish scientists and an agreement between ECORD and SPRS. An IKC for fuel should be explored with AWI by ECORD. The earliest this expedition could be implemented is August-October 2021. In this case, an ECORD commitment is needed in 2018. D. McInroy presented the costs for this expedition*. Expedition 377 'Arctic Ocean Paleoceanography (ArcOP)' is postponed until further notice.

IODP Expedition 373 'Antarctic Cenozoic Paleoclimate':
A teleconference with the UK Foreign and Commonwealth Office (FCO) was held to investigate research permitting under the Antarctic Treaty. ESO issued a call to tender for the platform and drilling services with a closing date of 13 June 2018. In conclusion, there are no compliant bids for this expedition in 2019 or 2020. Only two bids were submitted and the main issue is the lack of vessel availability within the ECORD budget.

* See confidential annex.

As a consequence, following EFB Consensus 18-03-04, Expedition 389 'Hawaiian Drowned Reefs' will be implemented in 2019. Expedition 373 'Antarctic Cenozoic Paleoclimate' is postponed until further notice, but the scoping is still continuing. Countries with Antarctic scientific operations tend to operate in limited sectors, and in support of research bases.

Option 1 would be to secure ship time on the new Australian research vessel RSV *Nuyina*, which should be commissioned in the 2020/21 season if all goes to plan. There is the possibility of an IKC, although co-funded and fully-funded options appear to be negotiable. For an IKC, a very robust ship time proposal is required. However, the science theme of the current Expedition 373 proposal is not well-aligned with the priorities of the Australian Antarctic Division. But adding funding would raise the likelihood of securing ship time. ECORD should explore the options for securing ship time with the *Nuyina* operator.

Option 2 is to secure ship time on the US research vessel *N. B. Palmer* (will not be an IKC). This ship is not available until the 2022/23 season.

D. McInroy presented the costs for this expedition*.

IODP Expedition 389 'Hawaiian Drowned Reefs': The offshore phase is planned for September-October 2019 and the Onshore Science Party will be held from late January to February 2020. The Co-chief scientists signed up: Jody Webster (University of Sydney) and Christina Ravelo (University of California). A call for coring service and platform was issued (call for vessel and seafloor drill). A meeting with the preferred contractor was held on 24 October 2018 and negotiations are still ongoing. The permitting work is continuing. The call for scientists is open and will close on 23 November 2018. A webinar was held on 31 October 2018 with 115 registered people. The PMOs will send the applications to ESO on 25 January 2019. An ESO-Co-chief scientists meeting is planned for February 2019 in Edinburgh.

D. McInroy presented the revised ESO FY19 budget*.

DISCUSSION on seafloor drills, ArcOP and Expedition 373:

D. McInroy stated that the use of a seafloor drill for Expedition 389 is more acceptable and advisable for permitting issues. There are advantages in terms of coring carbonate lithologies with a seafloor drill as a better recovery can be expected (D. McInroy). L. Lourens asked about the advantage of using commercial seafloor drills for Expedition 373. The MeBo was not available when Expedition 373 was planned for 2017 and the RD2 did not perform as well as expected during IODP Expedition 357 'Atlantis Massif Serpentinization and Life', therefore, commercial drills were considered. The second call for Expedition 373 this summer and any future calls will be worldwide and will include commercial options as well as academic seafloor drills (D. McInroy). K. Gohl asked for the status of the RD2. The RD2 is just back from a project in the North Sea related to carbon

* See confidential annex.

capture and storage and a 25 m long continuous core was successfully recovered, which is a record for the RD2 (D. McInroy). More projects are needed to go deeper and to prove that the RD2 can regularly, reliably and continuously drill down to 55 mbsf (D. McInroy). In contrast to the academic drills RD2 and MeBo, the commercial drills display such a track record. In case Expedition 373 is scheduled for the second half of the current programme, there will be possibly more confidence to use the RD2 for this expedition (D. McInroy). D. Kroon asked why it is that difficult to find a ship for Expedition 373. The problem with most available vessels is the long transit from Europe to the Antarctic, which would increase the mobilisation costs by a few million dollars (D. McInroy). Only four out of 28 vessels were available and all of those had to come from Europe. There are hopes for the Australian research vessel (D. McInroy). Many companies do not want to commit that far ahead.
Concerning ArcOP, France also tried to reach out to the Russian Academy of Sciences through the cooperation they had with France. At this time the cooperation agreement between France and Russia was reframed and ECORD was included in the text, but Russia rejected this change (G. Lericolais). Scientific work that could be of interest for Russia could be done, like drilling the basement, however, Russia is not interested anymore as they will do it independently (D. McInroy).

12 Bremen Core Repository Report (U. Röhl)

(13:53)

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 puposes. The BCR currently archives 155 km of cores from the Atlantic Ocean, Arctic Ocean, Mediterranean Sea, Black Sea and Baltic Sea. Since 1969 almost 1.7M samples have been taken from BCR cores.

Curation and sampling: Since October 2017 43,717 samples have been taken of which 12,133 samples have been taken for Expedition 381 ‘Corinth Active Rift Development’. The BCR successfuly dealt with sample requests backlog and continued to acquire digital overview scans of the BCR thin section collection.

Data management: The Repository Database 'CurationDIS' version 6.3 is routinely used. IGSN numbers have been generated and registered at IGSN e. V. for all samples from MSP Expeditions 302, 313, 347 and 357. The long-term storage of Expedition 364 ‘Chicxulub Impact Crater’ data in PANGAEA has been finalized. A new cloud system for expedition data and file management has been set up.

IODP Expedition 364 'Chicxulub Impact Crater': Since October 2017, 693 samples were taken for nine requests. Rotating expedition thin sections between seven Science Party members is completed. In May 2018 all materials from Expedition 364 were shipped to the Gulf Coast Repository where they arrived on 8 June 2018.

IODP Expedition 381 'Corinth Active Rift Development': The BCR helped preparing the offshore phase by organizing curation equipment and consumables, working on sampling planning and handling the sample requests. The OSP was hosted from 31 January to 28 February 2018. The duration of the OSP was 29 days. Overall, 12,133 samples have been taken from the Expedition 381 cores including 1,746 offshore samples.

BCR sample requests and sampling at the BCR: The BCR was founded in 1994 and since then the sample requests increased from year to year. High numbers of sample requests and samples taken at the BCR refer to years when the *JR* was operating in the Atlantic Ocean.

Milestones in 2019: Cores will be sent from the KCC to the BCR for XRF scanning. In fall 2019 the BCR will host a *JR* Sampling Party for IODP Expedition 382 'Iceberg Alley and Subantarctic Ice and Ocean Dynamics'. According to the current *JR* schedule, at least five more Sampling Parties will be held at the BCR in 2020 and 2021.

BCR storage capacity: In 2005 the BCR moved to the MARUM building. During the DSDP/ODP Core Redistribution project (2006-2008) the collection grew from 75 km to 140 km of cores. Currently, 155 km of cores from 89 expeditions are stored at the BCR. In total, more than 1 million of samples were taken (70,000 samples per year). The remaining capacity is about 30 km. In 2018 funds for a new research building next to the MARUM building were approved and the construction will probably start in 2020. The reefer will have 500 m^2 and provide capacity for future IODP cores.

Education & Outreach: Tours and live events (Geoshows, Science Nights) were organised at the BCR. The blogger Joel Lander visited the BCR: https://blogs.uni-bremen.de/eule/2018/05/15/steine-die-die-welt-bedeuten/. A German TV team was filming at the BCR (ZDF show Terra X): https://www.zdf.de/dokumentation/terra-x/das-ende-der-dinosaurier-102.html. A Dutch film team was also filming at the BCR for a documentary on the discovery of Azolla fern in the Eocene Arctic Ocean.
This year is the 12th year of the Bremen ECORD Summer School. In 2018 the topic of the Summer School was "Sub-seafloor Fluid Transport and Gas Hydrate Dynamics". The Summer School combines lectures and interactive discussions on the main themes of IODP with practical 'shipboard' methodologies. In April 2018 the fourth ECORD Training Course was held at the MARUM with 30 participants from numerous countries. The participants were prepared for future IODP expeditions. The 5th ECORD Training Course is planned for 2019.

13 ECORD Facility Board Report and X381 Review (G. Lericolais)

(14:04)

G. Lericolais 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 Gilles Lericolais (FRA), Gretchen Früh-Green (CHE), Ellen Thomas (USA), Stephen Gallagher (AUS), Gabriele Uenzelmann-Neben (GER) and Fumio Inagaki (JPN); 2) the members of the ECORD Executive Bureau: ECORD Council core members, EMA, ESO and ESSAC; and 3) NSF and MEXT with one representative each. The three-years term of the EFB Chair Gilles Lericolais (FRA) will end on 31 December 2018. Gabriele Uenzelmann-Neben (GER) will become EFB Chair on 1 January 2019. Stephen Gallagher (AUS) and Fumio Inagaki (JPN) will rotate off the Science Board at the end of 2018, and will be replaced by Yasuhiro Yamada (JPN) and Feng Ping Wang (CHN).

G. Lericolais gave an overview of MSP proposals at the EFB:

Proposal	type	Short Title	PI	Country	Exp.	
637	Full2	*New England Shelf Hydrogeology*	Person	USA		
708	Full	*Central Arctic Paleoceanography*	Stein	ECORD (Germany)	377	ON HOLD
716	Full2	*Hawaiian Drowned Reefs*	Webster	ANZIC (Australia)	389	Exp. 2019
730	Full2	*Sabine Bank Sea Level*	Taylor	USA		
813	Full	Antarctic Cenozoic Paleoclimate	Williams	USA	373	ON HOLD
866	Full2 (MSP or Ck)	Japan Trench Paleoseismology	Strasser	ECORD - Switzerland		
887	CPP2	Gulf of Mexico Gas Hydrates	Flemming	USA	386	To be discussed @Council

Expedition 373 'Antarctic Cenozoic Paleoclimate': in the EFB waiting room.

Expedition 377 'Arctic Ocean Paleoceanography': in the EFB waiting room.

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

716-Full2 'Hawaiian Drowned Reefs': scheduled for 2019.

730-Full2 'Sabine Bank Sea-Level': in the EFB waiting room.

866-Full2 'Japan Trench Paleoseismology': in the EFB waiting room.

887-CPP2 'Gulf of Mexico Gas Hydrates': the JRFB forwarded this proposal in May 2018 to the EFB; in the EFB waiting room.

G. Lericolais summarized MSP proposals at the SEP:

Proposal#	type	Short Title	PI	Country	Exp	
796	ADP	NADIR: Nice Amphibious Drilling	Kopf	ECORD (Germany)		Revise @SEP
863	MDP	ISOLAT Southern Ocean Paleoclimate	Peterson	USA		Revise @SEP
915	Pre (MSP or JR)	North Atlantic Fjord Sediment Archives	Giraudeau	ECORD - France		Develop Full @SEP
931	Pre	East Antarctic Ice Sheet Evolution	Shevenell	USA		Develop Full @SEP

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

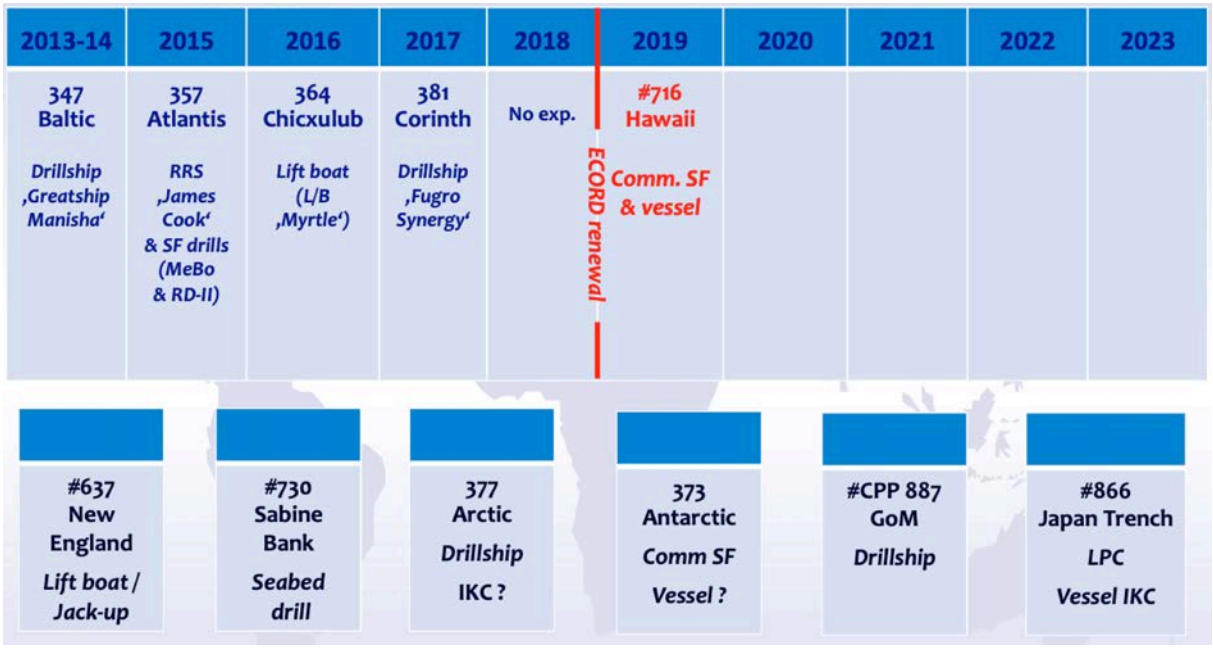
863-MDP 'ISOLAT Southern Ocean Paleoclimate': needs to be revised.

915-Pre 'North Atlantic Fjord Sediment Archives': needs to be developed as full proposal.

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

IODP Expedition 381 'Corinth Active Rift Development': The offshore phase took place from 23 October to 18 December 2017. A total of 1645 m of core was recovered from three sites over a 1905 m cored interval. The OSP was held from 31 January to 28 February 2018 at the BCR in Bremen. Expedition 381 was reviewed on 6 November 2018 in The Hague. The expedition faced following challenges: a short leading time frame, territorial waters permitting issues, the short time between offshore and onshore phases and problems with the timing of access to logging data. The review panel proposed several recommendations to improve next equivalent expeditions. For further details see the Expedition 381 Review Report.

G. Lericolais presented the current MSP expeditions schedule:



IODP NEWS & THE FUTURE OF SCIENTIFIC OCEAN DRILLING

15 IODP Forum (D. Kroon)

(14:21)

D. Kroon presented 2018 Forum consensus items (see agenda book pages 44-46 and http://www.iodp.org/forum-minutes-and-consensus-items).

Forum Consensus Item 18-01 on the efforts of the IODP platform providers and post-2024 scientific ocean drilling
Forum Consensus Item 18-02 on mid-term IODP renewal and post-2024 planning
Forum Consensus Item 18-03 on scientific ocean drilling beyond 2023
Forum Consensus Item 18-04: acknowledgement of the 2018 host IODP-India
Forum Consensus Item 18-05 on the next meetings to be held in Japan (2019), the USA (2020) and in Europe (2021)
Forum Consensus Item 18-06: acknowledgement of Jamie Austin

16 ECORD 2019 'PROCEED' Workshop (A. Morris/W. Piller)

(14:43)

A. Morris summarized the planning and preparation for the PROCEED – Ex**p**anding F**ro**ntiers of S**cie**ntific Oc**e**an **D**rilling – workshop. A Special Call for proposals was issued for the organisation of a MagellanPlus workshop on "Initiating concepts for a future scientific ocean drilling programme to be developed beyond 2023". However, no application was received. Following discussions at the ESSAC meeting in May 2018, ECORD started with the organisation of a two-day workshop in spring 2019 with the aim to define new goals for a future international scientific ocean drilling programme

beyond 2023. This workshop will held on 6-7 April 2019 prior to the EGU at the Austrian Academy of Sciences in Vienna. For registration an email has to be sent to ema@cerege.fr by 17 February 2019. The ESSAC delegates nominated members for the PROCEED scientific committee. The scientific and the organising committee are composed of 16 and 6 members, respectively. For further information see http://www.ecord.org/science/proceed/. A PROCEED planning meeting will be held on 26 November 2018 at the Royal Astronomical Society in London. So far, 30 registrations have been received. The total capacity for the PROCEED workshop is of 350 attendees. Representatives from the PROCEED scientific committee will attend together with representatives from similar meetings held in the USA, Japan, etc. the IODP Forum 2019 meeting to discuss the outcomes of those meetings.

ECORD Council Consensus 18-11-02:
The ECORD Council thanks Bernhard Plunger and Werner Piller for their committment and efforts regarding the organisation of the' PROCEED' meeting to be held on 6-7 April 2019 at the Austrian Academy of Sciences in Vienna.

In favour: 14, **Abstain**: 0, **Against**: 0, **Absent**: 1

DISCUSSION on PROCEED:

F. Abrantes asked if there are plans to ensure that ESSAC delegates will attend the PROCEED workshop. The PROCEED workshop will be held back to back with the EGU as most of the ECORD scientists will attend the EGU 2019 (G. Camoin). This ensures a maximum participation at reasonal costs. The budget for the PROCEED workshop is relatively small with 15,000 € and will cover only the catering services. ECORD cannot pay any travels to the PROCEED workshop (G. Camoin). About 100 participants attended the MagellanPlus workshop, which was organised about ten years ago in Vienna to prepare the current programme (G. Camoin). About 600 participants attended the following INVEST conference. The ESSAC delegates should be encouraged to attend the PROCEED workshop (G. Früh-Green). See ECORD Council Consensus 18-11-09.

L. de Santis asked how the PROCEED meeting will be organised. It will be discussed at the planning meeting in London how the PROCEED meeting will operate (A. Morris). During this meeting a structure will be made, which will include round-table discussions and break-out groups (A. Morris). After the PROCEED workshop the scientific committee will produce a White Paper for ECORD so that ECORD's wishes for the future can be discussed (G. Camoin). Following the discussions at the IODP Forum 2018 meeting, a second INVEST-type conference was not favored, except by the Chinese (W. Piller). Instead of organising a big second INVEST-type conference, the outcomes of all regional workshops, like PROCEED for ECORD, will be discussed at the next IODP Forum to be held in Osaka, Japan in 2019 (W. Piller). If no INVEST-type conference will be organised, how can new ideas from the science community at large be gathered (J. Behrmann)? A big conference is not needed as there is not much time and as it is scientifically not justified (J. Allan). The next Science Plan will differ from the current one, but not that much. The regional meetings should be modest in

size and will be followed by an umbrella meeting with representatives from the regional meetings (J. Allan). This approach is logistically less complicated and more streamlined. The result should be a document or documents used to support the aquisition of new platforms (J. Allan). However, the big INVEST conference was very helpful for convincing decision makers (J. Erbacher). One issue is that not all countries will organize a regional meeting and will provide feedback at the 2019 IODP Forum meeting (J. Erbacher). Discussions should also be continued at further upcoming IODP Forum meetings (J. Erbacher).
Early-career scientists should have the chance to be involved and the regional workshops provide this possibility (D. Kroon). Many young scientists attended the INVEST conference in 2009 (J. Behrmann). The Science Plan was written in an open way so that all proposals fit to it. The question is if the Science Plan is a strategy or an implementation plan (D. Kroon). The next Science Plan could be more applied. One possibility could be to keep the old Science Plan and to adapt it on based what was done. A report is needed on what was done and what was not yet achieved by IODP (D. Kroon). The 2017 JR Assessment Workshop assessed the challenges of the IODP Science Plan: which challenges were addressed and how well (C. Brenner). It is important to figure out which challenges were actually (partly or fully) addressed during the IODP expeditions (D. Kroon). The funding agencies want to see the challenges from the science community (J. Behrmann). IODP might communicate that the old challenges are still the same, but it is important to think about new challenges (J. Behrmann). It is crucial that young scientists discuss among them (F. Abrantes). The EGU is the biggest forum for early-career scientists and this could facilitate attendance of young scientists at the PROCEED workshop (A. Morris). Even people not being able to attend may have their input to the workshop as they can contact the most appropriate member of the PROCEED scientific committee and express their views (A. Morris).

17 NSF (J. Allan)

(15:08)

J. Allan presented the FY19 budget, the *JR* staffing and the *JR* Facility Review and Renewal.

FY19 budget: The Congress sets the actual appropriation. The proposed FY19 OCE/ODP funding is the same as the actual FY17. The OCE/ODP 2018 budget is flat with no increase from FY17. For FY19 eight months of operations are planned at $66.6 M USD. High fuel prices and increasing operational costs combined with static member contributions and NSF funding remove the ability to operate ten months. Maybe complexity of operations has to be reduced in the future to fit the budget. International contributions to *JR* operations support FY19 *JR* operations: $14.7M USD base contribution with China providing $3M USD membership for FY19. There is a long-term issue of rising drillship costs with uncertain increase in contributed funds from Mamber partners.

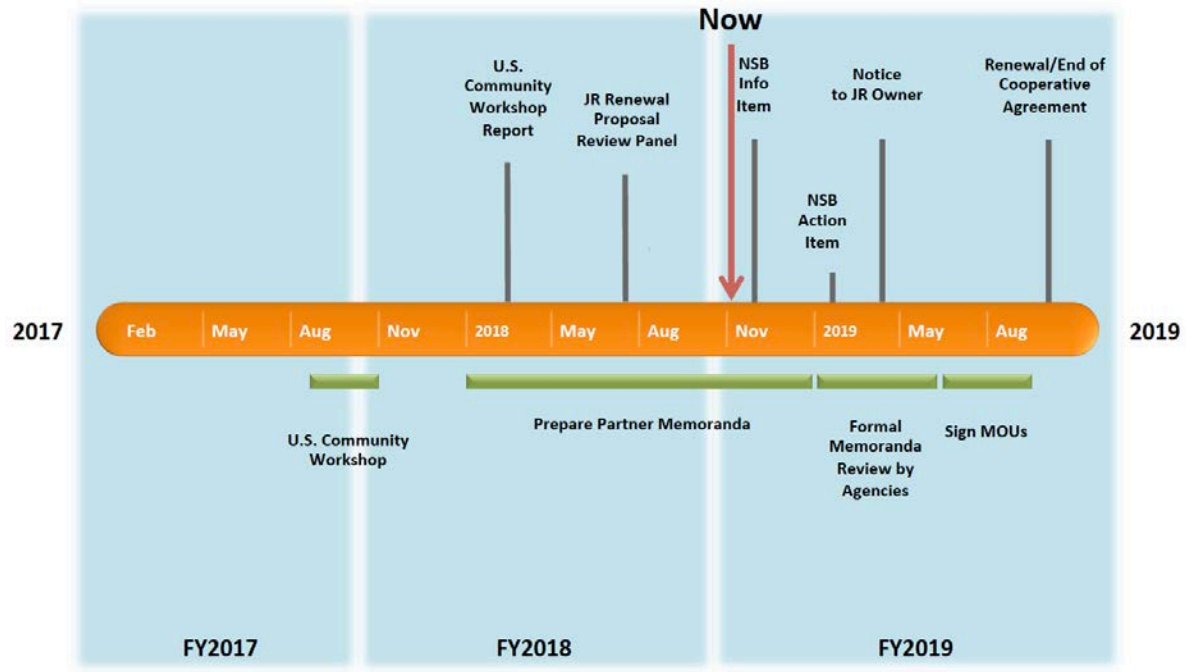
JR staffing: At the moment, there are ten U.S. Science Party Members on each *JR* expedition including Onboard Outreach Program members. Those sailing under the Onboard Outreach Program are considered as members of the Expedition Science Party.
In future Memoranda there will be an increase from $3M to $4M USD for a full membership in the *JR* consortia. All *JR* members will get a reduction in the amount of sailing scientists on the *JR*. The Party size of the *JR* will be reduced from 30-31 to 25-26. NSF would prefer minimal changes in language and Facility Board and panel membership numbers. NSF and ECORD agree on financial and staffing details. Co-chief scientists and Onboard Outreach members will be included in total quota rights after IODP Expedition 385 and all *JR* berths will be treated equally.

JR Facility Review: The 5-year Cooperative Agreement for *JR* operation requires annual and mid-award (3rd-year) reviews. These reviews are used for "mid-course" corrections and for input on renewal or re-competition of the Cooperative Agreement. On 28 February-2 March 2018, the NSF panel met for the review of FY17 operations. A report from the FY17 Co-chief review was received.
The *JR* Facility Review Panel is an NSF selected panel, in consultation with the JRFB Chair and JRSO. The Panel Review and Scope follows NSF Large Facilities Office (LFO) guidelines for the review of Large Facilities and the NSF JR CA Internal Management Plan. The report is to NSF. The report is confidential and is shared with NSF financial partners and the JRFB, but the NSF response is public. The panel report gave both three challenges and ten recommendations. The challenges reflected concerns regarding the age of the *JR*. Five recommendations focused on how to mitigate the operational risk.

JR Facility Performance Rating: The contract spcifies four distinct day rates: operating, standby, transit and breakdown. The day rates are calculated in 15-minute increments, thus providing a sensitive indicator. The annual performance rating is the relationship of the actual operating time vs. the planned operating time. The *JR* Facility rating is relatively high even with the occurence of breakdowns. The actual amount of delivered operations has been much better than promised in the actual award.

JR Facility Renewal: In early May 2018 JRSO submitted a *JR* renewal proposal. The NSF Panel reviewed this proposal on 10-11 July 2018. The NSF Director has decided to seek approval for a 5-year standard renewal (FY20-24) from the National Science Board. The National Science Board authorizes expenditure of funds. Concerning post-2024 international scientific ocean drilling, NSF is very interested in ideas regarding platforms and programme(s). The U.S. community is moving forward. There is continued interest in supplying a platform for scientific ocean drilling with a platform determined by science requirements.

J. Allan presented the <u>timeline for the JR Facility Renewal</u>:



<u>Other NSF news:</u> William Easterling is the new Geosciences Assistant Director to NSF. Terry Quinn is the new OCE Division Director. The Division of Ocean Sciences moved to the new Alexandria location.

<u>DISCUSSION on a potential replacement of the JR:</u>
D. Smith asked about the timeline for replacing the JR. There are a variety of timescales depending on how the replacement looks like (J. Allan). The 2019 Denver workshop will be crucial to help during this process. In FY28 the environmental impact statement will run out, but the ship owner has also to agree on running the JR for IODP through the JRSO (J. Allan). One aspect of having an aging platform is that the maintenance costs are increasing while the day rate is fixed (J. Allan). NSF is hoping to get a permission in February 2019 for the next five years of operation. A range of possibilities for replacing the JR is explored (J. Allan). NSF is pleased with the regional workshop approach to move on quickly and to avoid any gap in operations like it could happen with the time-consuming approach of organising an INVEST-type conference (J. Allan).

The meeting was closed at 15:30.

14 CLOSED SESSION (ECORD Council and ECORD Executive Members – '*Exec*' in roster)

(15:59)

2019-2023 MSP operational plan

ECORD Council Consensus 18-11-03:
The ECORD Council approves the revised ESO FY19 budget of $X*M USD, which includes the operational costs related to Expedition 389 'Hawaiian Drowned Reefs'.

In favour: 14, **Abstain**: 0, **Against**: 0, **Absent**: 1

ECORD Council Consensus 18-11-04:
The ECORD Council approves the increase of the budget cap from $X*M USD to $XM* USD to implement Expedition 377 'Arctic Paleoceanography (ArcOP)', based on the updated cost estimates provided by ESO.

In favour: 14, **Abstain**: 0, **Against**: 0, **Absent**: 1

ECORD Council Consensus 18-11-05:
The ECORD Council approves the scheduling of an MSP expedition based on proposal #866 'Japan Trench Paleoseismology' for FY20, as proposed by the EFB following its e-meeting held on September 10, 2018. The ECORD Council applauds the planned collaboration between ESO and JAMSTEC/CDEX for the implementation of this expedition.

In favour: 14, **Abstain**: 0, **Against**: 0, **Absent**: 1

ECORD Council Consensus 18-11-06:
Considering the EFB recommendation to implement Expedition 377 'Arctic Ocean Paleoceanography (ArcOP)' as a first-priority expedition before the end of IODP (EFB Consensus 18-03-05) and ECORD Council Consensus 18-11-04, the ECORD Council decides to schedule this expedition in FY21.

In favour: 14, **Abstain**: 0, **Against**: 0, **Absent**: 1

ECORD Council Consensus 18-11-07:
Considering ECORD Council Consensus 18-11-06, the ECORD Council does not consider it possible to schedule an MSP expedition based on proposal #887-CPP2 'Gulf of Mexico Methane Hydrate', as proposed by the EFB following its e-meeting held on September 10, 2018. This decision is based on the new information received from ESO and on the EFB priorities supported by the ECORD Council.

In favour: 14, **Abstain**: 0, **Against**: 0, **Absent**: 1

* See confidential annex.

ECORD Council Consensus 18-11-08:
The ECORD Council decides to schedule Expedition 373 'Antarctic Cenozoic Paleoclimate' in FY23 and tasks the EFB to explore alternative scenarios in case ESO is not able to identify a suitable platform to implement it within the $X*M budget limit set by ECORD Council Consensus 18-03-01.

In favour: 14, **Abstain**: 0, **Against**: 0, **Absent**: 1

November 8th, 2018

(9:07)
G. Lüniger opened the meeting.

18 MEXT (T. Watanabe)

(9:07)
T. Watanabe summarized the JAMSTEC budget allocation since FY11 and the Japanese Renewal Plan.

JAMSTEC budget allocation: The annual JAMSTEC budget was slightly decreasing since 2011, but remained stable over the past three years. For FY19 a budget appropriation of 120% of the FY18 budget is requested.

Renewal process in Japan: In May 2018 the Basic Plan on Ocean Policy of Japan was adopted by the cabinet members and entered the 3rd term (2018-2023). Mantle drilling in the future and international collaboration through Japan's participation in IODP are important. The JAMSTEC mid-term Objectives and Activities Plan will be revised for seven years (April 2019 – March 2026). Taking into account the 3rd Basic Plan on Ocean Policy of Japan (2018-2023). J-DESC is in a streamlining process and restarted in October 2018 under new executives. A workshop 'Beyond 2023' will be organised in April 2019.

19 *JR* Associate Members (G. Young Kim/L. Armand)

Korea IODP
(9:17)
G. Young Kim from the Korea Institute of Geoscience and Mineral Resources (KIGAM) presented recent activities of K-IODP. The K-IODP project started in 1997 (1997-2003:

* See confidential annex.

K-ODP; 2004-2010: 1. phase of K-IODP; 2011-2019: 2. phase of K-IODP). Since 2004 Korea contributes $1M USD per year to the USA to access the *JR*. At the moment the next K-IODP project is in preparation.

IODP proposals: So far, K-IODP has submitted five IODP proposals. In 2018 K-IODP organised two international workshops to write IODP proposals.

Shipboard scientists: Every year four Korean scientists participate in IODP expeditions. Since 1997 53 Korean scientists participated in ODP/IODP expeditions. Between September 2017 and September 2018 six Korean scientists sailed on five different IODP expeditions. K-IODP funds travels and post-cruise research.

Education: The K-IODP Summer School is organised every year. In 2018, 19 graduate students from 12 Korean universities participated in the Summer School. K-IODP also offers a lecturer programme. Every year K-IODP sends 3-4 students to the J-DESC Core School. In March 2018, five Korean students attended the J-DESC Core School. Overall, 25 students participated in the Japanese J-DESC Core School. In the future K-IODP will consider sending Korean students to the School of Rock and the ECORD Summer Schools.

Outreach: K-IODP promotes IODP activities to the public via TV broadcasting, the Korean press, IODP books, brochures, etc.

ANZIC

(9:25)

L. Armand presented the ANZIC office personnel, renewal activities post-2020, recent and future ANZIC activities.

ANZIC office personnel: Recently, Larisa Medenis joined the ANZIC team as Communications Officer. Catherine Beasley will leave ANZIC and the ANZIC Administrator role was advertised.

Renewal for post-2020: In November-December 2018 report cards will be provided to all consortium members and stakeholders to show them the benefits of the programme. The consortium is composed of 16 universities and four institutions across Australia and New Zealand. In February-March 2019 an ANZIC IODP Roadshow around Australia will be organised to make different (ANZIC and non-ANZIC) universities and institutions aware of the renewal process. In April 2019 the Ocean Planet Workshop will be organised and in May-June the business case will be finalised. In July 2019 the request will be submitted.

On 14-16 April 2019 the ANZIC Ocean Planet Workshop to develop the new IODP Strategic Plan 2024-2034 will be organised at the ANU in Canberra. This workshop is not necessarily open to other nations as the focus is on the interest of ANZIC members. Mike Coffin is the Chair of the science committee and Joanna Parr is the Vice-chair. The scientific committee is composed of early-career and mid-career scientists. Early-career scientists will run the session and the reports will be done by senior scientists. Day 1 will be an Early-Mid Career Researcher Day. Currently, five breakout groups are planned covering the four Science Plan themes as well as a new theme on ocean health. On Day 4 the first parts of a White Paper will be written. The application form to attend this workshop includes proposing ideas for the workshop. The aim is to get 200 people attending the workshop.

Pre-proposals: In 2017 the Australasian IODP Planning workshop was held. The report of this workshop is available on https://iodp.org.au/publications/workshop-reports/. An article was published in *Scientific Drilling* in November 2018. Several pre-proposal submissions came out of this workshop (proposals 924, 926 and 931). Further pre-proposals are still in development.

ANZIC conference activities:

- Australian Geoscience Council Convention (AGCC) in Adelaide on 14-18 October 2018 (session and booth)
- Geoscience Society of New Zealand Conference in Napier, New Zealand, on 27-30 November 2018 (booth and three plenaries)
- AGU Fall Meeting 2018 (session on Fifty Years of Scientific Ocean Drilling and a plenary)
- 13th International Conference on Paleoceanography (ICP13) in Sydney on 1-6 September 2019 (session and booth)

Review Paper submission: A review paper on ancient DNA from marine sediments was submitted to *Earth-Science Reviews* and is currently under review.

COMMENT on genetic material in sediments:
G. Lericolais mentioned that IODP has to consider the declaration of the type of genetic material recovered in IODP cores. At the moment a law is discussed at the United Nations.

ECORD PARTNERSHIP

20 *JOIDES Resolution* Facility Board and Operations (B. Clement)

(9:42)

B. Clement presented a JRSO FY18 update, a summary of IODP publications and the revised *JR* schedule. Clive Neal is the new JRFB Chair since 1 October 2018.

In FY18 five IODP expeditions were implemented:

- Expedition 369 'Australia Cretaceous Climate & Tectonics'
- Expedition 372 'Creeping Gas Hydrates and Hikurangi LWD'
- Expedition 374 'Ross Sea West Antarctic Ice Sheet History': for environmental reasons this operation was ceased as there was a leak of oil.
- Expedition 375 'Hikurangi Subduction Margin': two subseafloor observatories were installed.
- Expedition 376 'Brothers Arc Flux': challenging working environment with 300-350°C and a pH of 1.5.

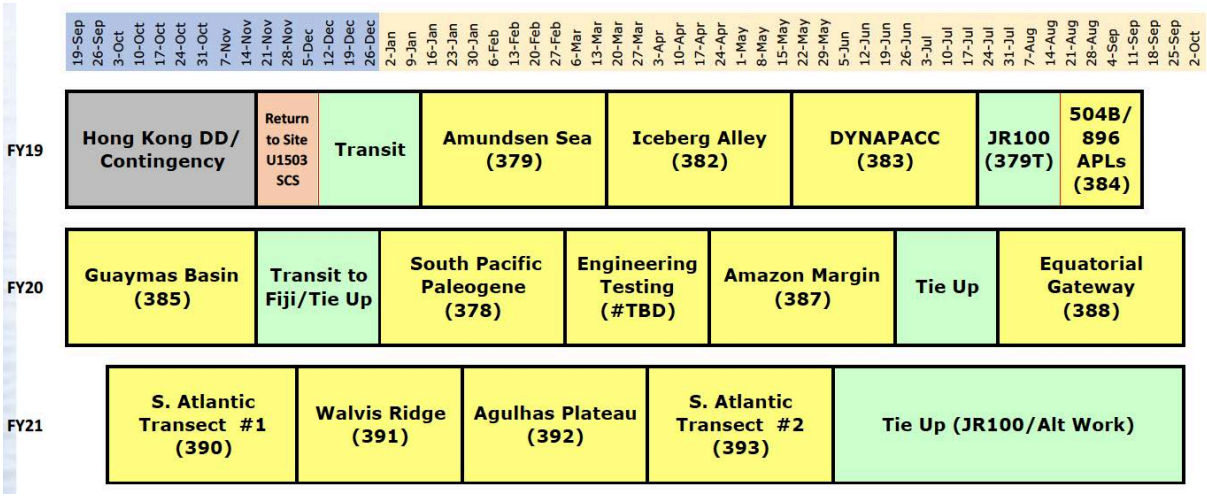
AGI database of ocean drilling publications: Currently, there are 35,000 total publications and 11,000 of those were published in peer-reviewed journals. There are about 700 theses and dissertations. Authors and co-authors of all DSDP, ODP and IODP publications come from 98 different countries. B. Clement presented the five papers with the highest altmetric scores – a measure of social media attention. Two of those are based on Expedition 364 'Chicxulub Impact Crater'. The Morgan *et al.* 2016 paper entitled "The formation of peak rings in large impact craters" (*Science*, 354(6314): 878-882) is in the top 5% of all research outputs scored by Altmetric.

JRSO update:

In summer 2018 the *JR* has been in the dry dock at Subic Bay Philippines. On 26 July wooden blocks supporting the *JR* in the dry dock collapsed. The shipyard was prepared for a vessel weighing 11,000 tons instead of 16,000 tons. The result was a significant damage to the hull and some damage to internal tanks.

The propellers failed inspection (40 years old, cracks appeared) and new propellers were ordered. In addition, a new sealing system was installed in the shaft tubes. Consequently, JRSO has revised the *JR* expedition schedule and Expedition 378 'South Pacific Paleogene Climate' was deferred to 2020.

B. Clement presented the revised *JR* schedule:



COMMENT on Expedition 374 'Ross Sea West Antarctic Ice Sheet History':
Besides technical problems during Expedition 374, at least two records were successfully received. One of these records is the longest piston core ever collected from the Antarctic margin with the highest recovery from the continental shelf (L. de Santis). The deep water sites that were part of this expedition are still at the JRFB and are a possible backup for Expedition 379 'Amundsen Sea West Antarctic Ice Sheet History' (B. Clement). Drilling of those sites would take two weeks. Sites from an MSP pre-proposal, which was submitted a few years ago for the Ross Sea, could be included in a new drilling proposal (L. de Santis).

21 *Chikyu* IODP Board and Operations (N. Eguchi)

(10:09)

N. Eguchi presented JPFY17 and JPFY18 *Chikyu* operations, the new JAMSTEC 7-years term and the consensus items from the 2018 CIB meeting (see agenda book pages 66-77).

CDEX/JAMSTEC status: JAMSTEC/CDEX is continuing its efforts for the budget of future IODP expeditions. Scientific and social impacts have been the most important criteria for the implementation of IODP expeditions. CDEX appreciates ECORD's contribution to the *Chikyu*. Complementary Project Proposals (CPP) and new *Chikyu* members are important to implement future IODP expeditions. The Lord Howe Rise (LHR) project has been postponed due to Australian financial aspects. The new JAMSTEC mid-term programme will start on 1 April 2019 with significant organisational changes.

N. Eguchi gave an overview of the JPFY17 *Chikyu* operations. JPFY17 started with a commercial operation from April to July 2017. From July to September about 60 scientists were onboard the *Chikyu* for the analysis of cores from the ICDP Oman drilling project. SCORE Expedition 910 is similar to JR100 and was implemented in September 2017 to encourage the Japanese scientific drilling community to use the *Chikyu* for

piston coring of up to 100 mbsf. From October 2017 to January 2018 the *Chikyu* has been in the dry dock for repair and maintainance. N. Eguchi continued to report on the *Chikyu* IODP Expedition 380 "NanTroSEIZE Stage 3: Frontal Thrust LTBMS", which was implemented from 12 January to 24 February 2018. Overall, 40 days were planned, but the expedition could be completed in 27 days (no Kuroshio Current). During this operation a shallow LTBMS was installed at site C6. The LTBMS was connected to the DONET undersea cable network and provides real-time pressure, strain and seismological data. Two ECORD scientists participated in this expedition. At the same time a workshop for students and young scientists on Core-Log-Seismic Integration Investigation at Sea was held onboard the *Chikyu*.

JPFY18 *Chikyu* operations: For March until June 2018, a commercial window was set followed by a repair and maintainance period until the the beginning of October 2018. During this period, from 5 July to 3 September 2018, scientists were onboard the *Chikyu* for the analysis of cores from the ICDP Oman drilling project (phase 2). The implementation of *Chikyu* IODP Expedition 358 "NanTroSEIZE Plate Boundary Riser 4" started on 7 October 2018 and will last until 21 March 2019. On 21 March 2019 the *Chikyu* will arrive at the port and cores will be analysed onboard until 31 March 2019. The aim is to access a subduction plate boundary fault system and its wall rocks at likely seismogenic depths for the first time. Logging while drilling (LWD) will be performed and cuttings will be analysed for most of the interval. A core (about 100 m long) will only be taken near the bottom of the hole. Stress and pore pressures will be measured. The duration of this operation is quite long with >160 days. The Science Party is composed of 37 members: 14 from ECORD, 13 from J-DESC, 1 from ANZIC and 9 from USSSP. This expedition has nince Science Leaders (five Japanese, three U.S. and one ECORD).

The mid-term period will end on 31 March 2019. No funds can be carried over to the next term and therefore the new mid-term will start with a commercial operation window which will last until February 2020. Another potential IODP window will range from August 2020 to January 2021.

New JAMSTEC 7-years term: The new JAMSTEC mid-term programme will start on 1 April 2019. One JAMSTEC department will manage the operation of the *Chikyu* and six other research vessels. A more adaptable research platforms management is expected. Efficient and effective platform management should be available within this 7-years term. *Chikyu* will continue its IODP operations and IODP core curation and service will also be continued at the Kochi Core Center (KCC). The *Chikyu* IODP Board (CIB) and the Technical Advisory Team (TAT) will continue with the same functions for *Chikyu o*perations. Support for J-DESC as Program Member Office (PMO) will be continued. The JAMSTEC Advisory Board requests more internationalisation.

The last CIB meeting was held on 19-20 March 2018 in Kobe. N. Eguchi presented four out of 13 CIB Consensus Items (see agenda book pages 75-76):

- CIB Consensus 0318-06 on new riser projects
- CIB Consensus 0318-07 on updates of the riser proposals CRISP/IBM/Hikurangi
- CIB Consensus 0318-08 on the deactivation of IODP pre-proposal 925
- CIB Consensus 0318-13 on Addendum 2 of IODP proposal 871

New CIB Members are David Goldberg (USA) and Ryo Anma (Japan).

The next CIB meeting will be held in June 2019.

22 PMOs (N. Eguchi)

(10:41)

N. Eguchi presented the agenda, action and consensus items of the Program Member Offices (PMO) meeting #3, which was held on 21 September 2018 in Goa, India. N. Eguchi was Chair of the PMO meeting #3.

The three IODP operators presented an update on shipboard staffing practices and statistics. Each PMO presented an update of its policies and procedures, including shipboard staffing, post-cruise research funding, workshops and courses, pre-drilling activities, panel nominations, public relations and educational activities. Further agenda items were on the IODP Code of Conduct and the organisation of planning workshops for a scientific ocean drilling programme beyond 2023/2024.

Action and consensus items can be found in the agenda book (page 78):

- PMO Action Item 1801 on assisting K-IODP during its renewal
- PMO Action Item 1802 on an IODP Code of Conduct
- PMO Action Item 1803 on planning workshops for a scientific ocean drilling programme beyond 2023/2024
- PMO Consensus 1801 on the next PMO meeting to be held in Osaka in September 2019

COMMENT on Code of Conduct:

The Code of Conduct was discussed at the last IODP Forum and PMO meetings and discussions will continue at the next IODP Forum meeting in 2019 (D. Kroon).

(10:48)

coffee break

(11:14)

SCIENCE

23 ECORD Expedition staffing and quotas (A. Morris)

(11:48)

A. Morris summarized expedition staffing and quotas.

Participation: Overall, 329 ECORD scientists, including 24 Co-chief Scientists (7%) and 35 Special Calls, sailed on IODP Expeditions 347-385, of which 62 sailed on MSP expeditions. More than 50% of the ECORD sailing scientists are young researchers: 22% Master and PhD students and 30% postdoctoral researchers and early-career scientists. About 60% of the ECORD scientists are men and 40% are women. The overall IODP balance is 66% men and 34% women. The distribution of ECORD scientists by country reveals that 102 scientists are from Germany, 77 from the UK and 61 from France. The majority of the 24 Co-chief Scientists are from Germany (11) and the UK (7). See the pie charts on pages 79-81 in the agenda book for further details.

Quotas: There is still an imbalance between the quotas of the the large contributors and the smaller contributors (Table 6). The large contributors are 7.68 underquota and the smaller contributors are 7.68 overquota. France is significantly underquota with 8.17. Norway is also significantly underquota with 4.3. Several countries like Austria, Canada, Italy, The Netherlands and Spain are overquota.

Table 6: Projected quotas 2014-2019 (Expeditions 349-385)

Projected Quotas 2014 - 2019 (Exps. 349 - 385)							
Total Berths invited	Total Berths special calls/IKC	berths entitled - excl. Sp. Calls & Cc	Difference	Total Sailed. incl. co-chiefs	Member	Financial Contribution (%)	total co-chiefs 2014 -
56	1	64.17	-8.17	58	France	25.67%	1
78	8	77.87	0.13	97	Germany	31.15%	11
54	13	53.64	0.36	74	UK	21.45%	7
188	22	195.68	-7.68	229	Sum	78.27%	19
4	3	1.39	2.61	7	Austria	0.56%	0
1	0	0.20	0.80	1	Belgium	0.08%	0
4	0	0.74	3.26	4	Canada	0.30%	0
1	0	2.21	-1.21	2	Denmark	0.89%	1
0	0	1.11	-1.11	0	Finland	0.44%	0
0	0	0.10	-0.10	0	Iceland*	0.04%	0
2	0	1.80	0.20	2	Ireland	0.72%	0
1	0	0.31	0.69	1	Israel	0.13%	0
9	4	5.91	3.09	14	Italy	2.36%	1
9	0	6.95	2.05	9	Netherlands	2.78%	0
11	1	15.30	-4.30	12	Norway	6.12%	0
1	0	0.21	0.79	1	Poland	0.08%	0
2	1	1.25	0.75	3	Portugal	0.50%	0
3	0	1.14	1.86	3	Spain	0.46%	0
6	1	7.34	-1.34	7	Sweden	2.94%	0
8	1	8.34	-0.34	10	Switzerland	3.34%	1
62	11	54.32	7.68	76	Sum	21.73%	3
250	33	250	0	305	TOTAL ECORD		22

Staffing of ECORD scientists on IODP Expeditions:

Expedition 358 (NanTroSEIZE: Plate Boundary Deep Riser 4): Thirteen ECORD scientists including six Special Calls (4 from Germany, 3 from France, 3 from the UK, 2 from Austria and 1 from Norway) plus one German Co-chief Scientist are sailing.

Expedition 378 (South Pacific Paleogene Climate): Staffing is completed. Eight ECORD scientists (3 from Germany, 2 from the UK, 1 from Italy, 1 from Switzerland and 1 from Norway) plus one German Co-chief Scientist are ready to sail.

Expedition 379 (Amundsen Sea West Antarctic Ice Sheet History): Staffing is completed. Nine ECORD scientists including one Special Call (4 from Germany, 2 from the UK, 1 from France, 1 from Sweden and 1 from Norway) plus one German Co-chief Scientist are ready to sail.

Expedition 382 (Iceberg Alley and Subantarctic Ice and Ocean Dynamics): Staffing is almost completed. Seven ECORD scientists (2 from Germany, 2 from the UK, 1 from the Netherlands, 1 from Spain and 1 from Switzerland) plus one German Co-chief Scientist are ready to sail. One Swedish scientist has withdrawn the application and negotiation for replacement is still ongoing.
Expedition 383 (Dynamics of Pacific Antarctic Circumpolar Current): Staffing is completed. Eight ECORD scientists (4 from Germany, 2 from the UK, 1 from France and 1 from Italy) plus one German Co-chief Scientist are ready to sail. One Norwegian scientist has withdrawn the application.
Expedition 385 (Guaymas Basin Tectonics and Biosphere): Staffing is completed. Nine ECORD scientists including one Special Call (6 from France, 2 from Germany and 1 from the UK) are ready to sail.

QUESTION about the separation of early and senior career scientists:
C. Brenner asked how ESSAC separates early from senior career scientists. Usually the scientists indicate their career stage themselves (H. Kinkel).

24 IODP Forum - Progress towards IODP Science Plan challenges (D. Kroon) (11:59)

The IODP Forum Chair maintains a document on the progress of IODP towards fulfillment of the 2013-2023 Science Plan (http://www.iodp.org/iodp-forum). D. Kroon presented how completed/scheduled expeditions and full proposals at SEP and the Facility Boards adress the 14 challenges of the IODP Science Plan. However, post-expedition assessment is not included and should be addressed. The proposal pressure is relatively stable and needs to be kept up for a potential new programme.

D. Kroon summarized the proposal statistics (see agenda book pages 90-92). At the moment there are 94 active IODP proposals in the system: 65 *JR*, 12 *Chikyu*, 11 MSP and 6 Multiple proposals. Of those, 49 are at the Facility Boards and 45 are at SEP (4 are in the holding bin). ECORD and the US are nearly equal in the number of lead proponents (ECORD: 39, US: 36, Others: 19). ECORD has the highest number of unique proponents (ECORD: 501, US: 382, Others: 295). Of the 94 active proposals, 55 are full proposals and 19 are pre-proposals, plus 12 APL and 8 umbrella proposals.

DISCUSSION on proposal pressure and scientific challenges:
G. Ceuleneer asked if the decrease in the number of proposals in 2015 is related to SEP being more efficient in deactivating proposals or a lack of new proposals. There was a peak in proposal submission just after the start of the current programme that flattened in 2015 and beyond (D. Kroon). This decrease probably reflects that scientists were responding to the JRFB asking for more regional proposals (D. Kroon). Scientists submitted more focused proposals for certain areas following the JR ship track. The system is more effective and proposals go faster through the system (D. Kroon).

G. Lüniger asked if all IODP Science Plan challenges are still valid for the future or if some of them were already completely addressed. The Science Plan was written in a very open manner, but the question is if it is good enough for the future (D. Kroon). New science topics could emerge, but the current IODP Science Plan challenges will remain important (D. Kroon).

(12:33)
lunch break
(13:21)

25 IODP active proposals and SEP Report (W. Piller)

(13:21)
Five watchdogs with expertise in science, site survey data and operation are responsible for the evaluation of an IODP proposal. W. Piller presented the proposal classification system.

At the January 2018 SEP meeting (Scripps Institution of Oceanography (SIO), La Jolla, CA, USA), 23 proposals have been reviewed, of which two were MSP (full2-866 and pre-931) and two *Chikyu* (full-923 and pre-925) proposals (Table 7). Three proposals came back from external review, six proposals have been revised and 14 new proposals were received (Table 7).
The result of the January 2018 SEP meeting (Table 7) is that the three proposals, which came back from external review, were placed in the holding bin. Three of the six revised proposals were sent out for external review, one was forwarded to the JRFB and two need to be developed as full2 proposals. Of the 14 new proposals, one was forwarded to the JRFB, nine proposals need to be developed as full proposals and four proposals were deactivated.

Table 7: Outcomes from the January 2018 SEP meeting. Proposals submitted for the October 2017 deadline. Green: back from external review, orange: revised, blue: new proposals.

Proposal ID	Type	PI	title	Outcome
853	Add (Full2)	Rosalind Coggon	South Atlantic Transect	Forward to JRFB with excellent
859	Full2	Paul Baker	Amazon Margin Drilling	External Review
864	Full2	Tom Dunkley Jones	Equatorial Atlantic Gateway	Holding Bin
866	Full2	Michael Strasser	Japan Trench Paleoseismology	External Review
874	Full2	Oliver Friedrich	Neogene Newfoundland Sediment Drifts	External Review
890	Full2	William Sager	Walvis Ridge Hotspot	Holding Bin
892	Full2	Ross Parnell-Turner	Reykjanes Mantle Convection	Holding Bin
909	Full	Paul Knutz	NW Greenland Glaciated Margin	Revise
911	Full	Jim Wright	Argentine Marine Deep-Water Interactions	Revise
919	Pre	Neil Mitchell	Late Cenozoic Pacific Internal Waves	Deactivate
920	APL	Johann Klages	Amundsen Sea Ice Sheet Stability	Deactivate
921	APL	Beth Orcutt	Hole 896A Biosphere Restoration	Forward to JRFB
922	Pre	Hugh Daigle	W Atlantic Cenozoic Slope Stability	Develop Full
923	Full	Yasuhiko Ohara	Godzilla Megamullion Lithosphere Architecture	Deactivate
924	Pre	Lowell Stott	Chatham Rise Geologic CO2 Release	Develop Full
925	Pre	Jim Mori	Blanco FZ Earthquake Triggering	Develop Full
926	Pre	Ulrich Georg Wortmann	Great Australian Bight Reflux Brines	Develop Full
927	Pre	Nevio Zitellini	Tyrrhenian continent-ocean transition	Develop Full
928	APL	Ivano Aiello	Gulf of California Environmental Change	Deactivate
929	Pre	Steven D'Hondt	Blake Nose Subseafloor Life	Develop Full
930	Pre	Derek Sawyer	W Atlantic Passive Margin Landslide	Develop Full
931	Pre	Amelia Shevenell	East Antarctic Ice Sheet Evolution	Develop Full
857C	Pre	Claudia Bertoni	DREAM: Lago-Mare deposits	Develop Full

At the June 2018 SEP meeting (GeoForschungsZentrum (GFZ), Potsdam, Germany), 18 proposals have been reviewed, of which two were MSP (full2-866 and pre-938) and one *Chikyu* (APL-939) proposals (Table 8). Two proposals came back from external review, seven proposals have been revised and nine new proposals were received (Table 8).
The result of the June 2018 SEP meeting (Table 8) is that the two proposals, which came back from external review, were forwarded to the JRFB (full2-874) and EFB (full2-866). Four of the seven revised proposals need to be developed as full2 proposals and three were deactivated. Of the nine new proposals, four proposals need to be developed as full proposals, two need to be revised and three proposals were deactivated. MSP proposal pre-938 was deactivated.

Table 8: Outcomes from the June 2018 SEP meeting. Proposals submitted for the April 2018 deadline. Green: back from external review, orange: revised, blue: new proposals.

ID	Type	PI	Title	Outcome
814	Full	Joseph Stoner	Greenland Ice Sheet	Revise
866	Full2	Michael Strasser	Japan Trench Paleoseismology	Forward to EFB as Excellent
874	Full2	Oliver Friedrich	Neogene Newfoundland Sediment Drifts	Forward to JRFB as Excellent
895	ADP	Rachel Flecker	Mediterranean-Atlantic Gateway Exchange	Revise
910	Full	Alberto Malinverno	Continental Margin Methane Cycling: Rio Grande	Revise
914	Full2	Luigi Jovane	Brazilian Equatorial Margin Paleoceanography	Deactivate
922	Full	Hugh Daigle	W Atlantic Cenozoic Slope Stability	Deactivate
929	Full	Steven D'Hondt	Blake Nose Subseafloor Life	Revise
930	Full	Derek Sawyer	W Atlantic Passive M. Landslide	Deactivate
932	Pre	Timothy Druitt	Hellenic Arc Volcanic Field	Develop Full
933	Pre	Torsten Bickert	NW African Continental Margin Climate	Develop Full
934	Full	Wolfram Geissler	Arctic Atlantic Gateway Climate	Revise
935	Pre	Stefan Bünz	Arctic Fluid Flow Systems	Develop Full
936	APL	Ann Cook	Mississippi Fan Velocity Pull-Ups	Deactivate
937	Pre	Andrew McCaig	Deepening Hole U1309D	Develop Full
938	Pre	Jeffrey McGuire	Cascadia Paleoseismic Record	Deactivate
939	APL	Asuka Yamaguchi	Tohoku Petit-Spot Magmatism	Revise
940	Full	Paola Vannucchi	Brazilian Equatorial Margin Tectonics	Deactivate

The next meetings will be held on 8-10 January 2019 at the Scripps Institution of Oceanography in La Jolla, USA, and on 25-27 June 2019 in Edinburgh, UK.

26 MagellanPlus Report (L. Lourens)

(13:34)

L. Lourens presented the composition of the MagellanPlus Steering Committee (SC). The Chair is Lucas Lourens and the Vice-Chair is Johan Lissenberg.

Every year there is one call for workshop proposals. For the 15 January 2018 deadline twelve proposals (1 ICDP, 1 ADP and 10 IODP-related) were submitted. These were ranked during the SC meeting in February 2018 in Prague. Five proposals were founded (two were approved immediately and three after revision):

1) Fjord sediment archives in the northeastern North Atlantic by Giraudeau et al. (France);

2) The North Atlantic Igneous Province continental break-up magmatism and impacts on global warming during the Paleogene by Berndt et al. (Germany);

3) Temporal evolution of Arctic gas hydrate and methane seepage systems by Plaza-Faverola et al. (Norway);
4) Greenland Ice Sheet evolution revealed by drilling a transect on the Baffin Bay - West Greenland margin (909-Full) by Knutz et al. (Denmark);
5) New Caledonia Peridotite Amphibious Drilling Project by Collot et al. (New Caledonia).

In 2018 four workshops were implemented:

1) Fjord sediment archives in the northeastern North Atlantic in Vienna, Austria on 7-8 April 2018;
2) The North Atlantic Igneous Province continental break-up magmatism and impacts on global warming during the Paleogene in Kiel, Germany on 29-30 May 2018;
3) Temporal evolution of Arctic gas hydrate and methane seepage systems in Tromsø, Norway on 4-5 June 2018;
4) Greenland Ice Sheet evolution revealed by drilling a transect on the Baffin Bay - West Greenland margin (909-Full) in Copenhagen, Denmark on 12-14 September 2018.

There is one upcoming workshop for 2019:

1) New Caledonia Peridotite Amphibious Drilling Project in Montpellier, France on 22-24 January 2019.

Travel grants: The MagellanPlus SC supported travels of six ECORD scientists with 9,000 € to attend the workshop "Scientific Exploration of the Arctic and North Pacific (SEA-NorP)" organised by Lindsay Worthington (USA) *et al.* on 25-27 September 2018 in Mt. Hood, OR, USA. In addition, two ECORD scientists were supported with 3,000 € to attend the workshop " IODP Proposal Nurturing Workshop - SPADE - Scientific Proposals for Andamans Drilling Endeavour" organised by M. Ravichandran (India) *et al.* on 17-19 September 2018 in Goa, India.

Publications: Articles regarding MagellanPlus workshops were published in the ECORD Newsletters #29 and #30.

Two Special Calls for proposals were issued for the organisation of MagellanPlus workshops on: 1) Demystifying the IODP Proposal Process for Early-Career Scientists; and 2) Initiating concepts for a future scientific ocean drilling programme to be developed beyond 2023.
For the first Special Call only one proposal was received until the 15 January 2018 deadline and two more proposals were received after extending the deadline to 1 April 2018. Finally, Damon Teagle *et al.* organised the workshop "Navigating the IODP Proposal System – for PhD and early-career scientists" on 24-26 September 2018 in Southampton, UK.

For the second Special Call only one proposal was received until the 15 January 2018 deadline and no application was received after extending the deadline to 1 April 2018. Thus, ECORD started with the organisation of the PROCEED workshop with the aim to define new goals for a future international scientific ocean drilling programme beyond 2023. This workshop will held on 6-7 April 2019 prior to the EGU at the Austrian Academy of Sciences in Vienna.

The deadline for the next call will be on 15 January 2019. The next SC meeting will be held on 1-3 February 2019 in Paris, France. Four proposals will be funded for the February 2019-2020 time frame.

The budget is 70,000 € per year. Travel grants of up to 10,000 € can be funded.

ECORD Council Consensus 18-11-09:
The ECORD Council encourages the ECORD IODP national offices to provide financial support to facilitate attendance of their respective ESSAC Delegates at the PROCEED meeting to be held in Vienna on 6-7 April 2019.

In favour: 14, **Abstain**: 0, **Against**: 0, **Absent**: 1

EDUCATIONAL ACTIVITIES

27 ECORD 2018 and 2019 educational activities (H. Kinkel)

(13:45)

ECORD Summer Schools - Scholarships:

The 2018 ECORD Petrophysics Summer School was held for the third time in Leicester from 30 June to 2 July and received a direct support of 10,000 €. Three scholarships with 800 € each were funded.

The 2018 ECORD Urbino Summer School in Paleoclimatology was held from 11 to 27 July and received a direct support of 10,000 €. Nine scholarships with 1,200 € each were funded.

The 2018 ECORD Bremen Summer School 2018 with the topic 'Sub-seafloor fluid transport and gas hydrate dynamics' was held at MARUM from 3 to 14 September and received a direct support of 10,000 €. Three scholarships with 600 € each were funded.

In total, 28 applications for ECORD Scholarships were received and 15 ECORD Scholarships were given.

ECORD Training Course:

The ECORD Training Course 2018 "Virtual Drillship Experience" was held at MARUM in April 2018 and received a direct support of 6,500 €.

ECORD Research Grants:
Twelve applications were received. In 2018 seven research grants were given to young researchers from four ECORD member countries. The total budget is 18,000 €.

ECORD Distinguished Lecturer Programme (DLP) 2018:
The four lecturers Luc Beaufort (France), Verena Heuer (Germany), Marguerite Godard (France) and Rebecca Bell (UK) cover the four themes of the Science Plan: 'Climate and Ocean Change', 'Biosphere Frontiers', 'Earth in Motion' and 'Earth Connections'.

ECORD Outreach Officer:
Vivien Cumming (UK), a freelance science writer, videographer and photographer with a PhD in Earth Sciences, will sail on Expedition 379 'Amundsen Sea West Antarctic Ice Sheet History'. She has already experience from Expedition 369 'Australia Cretaceous Climate and Tectonics' and she will produce a photo story, a short film and a science blog. She will also organise ship-to-shore broadcasts to classrooms and museums. Post-expedition activities include media work, a UK/Europe school speaking tour, museum exhibitions and future publicity.

QUESTION about Summer Schools:
L. de Santis asked for potential funding of ECORD scientists to attend the 2019 Summer School organised by the Antarctic Program and IODP at College Station. ESSAC will discuss this case (H. Kinkel).

28 USSSP educational activities (C. Brenner)

(13:53)
The U.S. developed an Education and Outreach White Paper with five overarching goals.

C. Brenner presented the primary goals of the USSSP Education program:

- Promote and support the science of IODP *specifically*, and assure a steady influx of future IODP leaders, by encouraging and providing opportunities for students and educators to participate in IODP expeditions and/or research.
- Inspire and help prepare students for careers in *general* fields of science, technology, engineering and math (STEM).
- Empower science educators to incorporate data and observations from deep ocean cores, allowing them to develop learning materials based on fundamental Earth system science concepts.
- Increase ethnic and gender diversity in IODP and geosciences in general.

Core education activities include the Onboard Outreach Program, Ocean Discovery Lecture Series, School of Rock, Graduate student fellowhsip program, Lamont-Doherty Earth Observatory (LDEO) summer intern program, American Museum of Natural History (AMNH) collaboration, educational conferences and the core loan program.

The Ocean Discovery Lecture Series started in September 2018 with six lecturers who cover the major IODP themes.

The School of Rock (SOR) has provided training to over 200 formal and informal educators since its inception in 2005. It is usually scheduled on *JR* transits and occasionally it has been held shore-based. The curricula vary from year to year. The idea is to train 12-15 teachers at different levels for about two weeks in IODP science, which they bring back to their community and into the classrooms. The 2018 SOR was offered in collaboration with ANZIC and focused on the geology of the Pacific Rim. Seven teachers from New Zealand, five from Australia and 7 from the U.S. attended the 2018 SOR. On the last day 19 dissemination plans were presented.

The Schlanger Graduate Student Fellows (four in 2018-19) receive $30,000 USD per year to work on projects with IODP relevance. Usually, 25-30 applications are received every year for this graduate student fellow programme and 3-5 are funded.

LDEO Summer Intern Program to allow undergraduate students to work with mentors on predefined projects. Since 2016, USSSP has sponsored three students per year; two are typically from underrepresented groups in the geosciences.

American Museum of Natural History Partnership: at least one IODP Educator's Evening is organised every year. On 13 April 2018 the Educator's Evening focused on the interaction of science and technology on the *JR*. A moderated discussion with Yair Rosenthal (Co-chief Scientist on Expedition 363) and Steve Midgley (JRSO Operations Superintendent) was held.

International collaborations: Non-U.S. Outreach Officers sail on the *JR* and the SOR is jointly organised.

QUESTION about U.S. lecturers:
A. Voelker asked if it would be possible to send U.S. lecturers to Europe. It might be worthwile to explore this possibility (C. Brenner).

29 J-DESC & CDEX educational activities (N. Eguchi)

(14:06)
A workshop for students and young scientists on Core-Log-Seismic Integration Investigation at Sea was held onboard the *Chikyu* during IODP Expedition 380 "NanTroSEIZE Stage 3: Frontal Thrust LTBMS", which was implemented from 12 January to 24 February 2018. They studied the role of the Nankai Frontal Prism in past tsunamigenic earthquakes and slow slip using Expedition 314 LWD data and Expedition 316 cores. There were two options: a 2-week short course or the full session of 27 days. The workshop included lectures, thematic break-out sessions, laboratory work, data

analysis, presentations, discussions and writing publications. Fourteen scientists were selected out of 18 applicants: 5 Japanese, 4 US and 5 from ECORD. Workshop reports were submitted to EOS and to the *Scientific Drilling* journal.

Lectures/seminars/workshops: Upon request, CDEX/JAMSTEC conducted lectures and seminars about the *Chikyu* and scientific ocean drilling for junior high schools, private companies and the geenral public. CDEX/JAMSTEC. In March 2018 J-DESC organised an IODP/ICDP Future Workshop in Tokyo with more than 150 participants. The next IODP/ICDP Future Workshop will be held in Yokohama in April 2019.

Onboard School: Open ship lab events were organised in September and December 2017. An Ocean Innovation Consortium Seminar was held on 3-4 March 2018 with 30 participants selected out of 70 applicants. This seminar included a ship tour and lectures. CDEX/JAMSTEC cooperated with the Nippon Foundation's project to increase the umber of engineers engaged in marine development.

N. Eguchi presented the schedule for the J-DESC Core Schools, which were held between September 2017 and September 2018:

J-DESC Core Schools (Sep. 2017 - Sep. 2018)			
Date	**Title**	**Venue**	**Lang.**
Nov-2017 June-2018	J-DESC Core School: Basic Logging Course Basic / Advanced Logging Course	Tsukuba Yokohama	J
Mar-2018	J-DESC Core School: ICDP Training Course	KTB	E
Mar-2018	J-DESC Core School: Basic / Isotope Analysis Course	Kochi	J
Aug-2018	J-DESC Core School: Micro Paleontology Course	Tsukuba	J
Aug-2018	J-DESC Core School: Paleomag Course	Kochi	J

The plan is to be more open for international participation.

OUTREACH

30 ECORD OTF 2018 Report (P. Maruéjol)

(14:15)

P. Maruéjol summarized ECORD Outreach Task Force (OTF) activities since October 2017 on behalf of the ECORD OTF. The mandate and members of the OTF were presented. The OTF has two meetings per year.

OTF 2018 activities: Overall, three booths were organised at international conferences. A joint ECORD/IODP-ICDP booth under the "Scientific Drilling" banner was organised at the EGU 2018 including lunch talks for teachers. A joint IODP-ICDP Townhall meeting and, for the first time, an ECORD outreach session were organised at the EGU 2018. A

booth was organised at the International Sedimentological Congress (ISC) 2018 in August 2018 in Québec, Canada. A booth will be organised together with ICDP, USSSP and CDEX-JAMSTEC at the AGU 2018, which will be held in Washington in December 2018.
ECORD also provided resources to the ECORD 2018 Training Course and Summer Schools, National Offices organising booths at geological conferences (IODP Italia and Swiss Drilling) and MagellanPlus workshops. ECORD provided copies of the book "Reconstructing Earth's Climate History" to the participants of the 2018 ECORD School of Rock, which was held in Pavia, Italy.
In order to reach out to the general public, activities, such as media interviews, blogs and videos, are organised and produced during IODP expeditions (see Agenda Item 31). A French TV team produced a documentary on Expedition 358 'NanTroSEIZE: Plate Boundary Deep Riser 4'. Vivien Cumming (UK) will sail as ECORD Outreach Officer on Expedition 379 'Amundsen Sea West Antarctic Ice Sheet History' (see Agenda Items 27 and 32).

OTF 2018 resources comprise the ECORD Annual Report 2017 (http://www.ecord.org/resources/reports/activities/), ECORD Newsletters (#30, #31, http://www.ecord.org/resources/ecord-newsletter/), MSP expedition flyers (http://www.ecord.org/resources/brochures/), ODP-IODP core replicas (http://www.ecord.org/resources/core-replicas/) and various flyers/brochures. Core replicas were presented at 10 events in France, Italy and the UK. The first Chicxulub core replicas will be available in November 2018.

ECORD online: The ECORD website is in compliance with the EU General Data Protection Regulation (GDPR, http://www.ecord.org/privacy/). Google Analytics was replaced by Wordpress to better protect privacy. The ECORD website has an average of 400 visitors per day with a peak of 700 visitors per day when ECORD was present at the ISC 2018. The top visited pages are the homepage (ECORD News), Apply to Sail and the Expedition 389 and 364 pages. The ECORD photo gallery was completed (http://www.ecord.org/resources/gallery/).
Twenty-eight ECORD News were distributed via the mailing list (1800 subscriptions). ECORD extranet was created to store and share non-public documents among ECORD representatives (http://www.ecord.org/private-area/). The ECORD social media channels (Twitter, facebook and YouTube) have been merged to "ECORD IODP".

31 Outreach activities related to recent MSP expeditions and forward look (C. Cotterill)

(14:25)
C. Cotterill summarized post-February 2018 outreach activities on MSP expeditions and proposed 2018/18 activities.

2018 outreach activities: A session was organised at the EGU in the Education and Outreach Symposium. A pre-cruise flyer, a logo and a detailed media contact list were prepared for Expedition 389 'Hawaiian Drowned Reefs'. Contact was made with native communities in Hawaii. C. Cotterill gave a keynote on ECORD Innovation and Technology and participated at the booth at the AGCC. There is ongoing work on an ECORD image film and brochure (see Agenda Item 32). A session for the EGU 2019 in the Education and Outreach Symposium on what Geoscience Outreach means to different groups was accepted.

Proposed 2018/18 outreach activities: A booth will be organised together with ICDP, USSSP and CDEX-JAMSTEC at the AGU 2018. There are ongoing outreach activities related to MSP Expeditions 325 'Great Barrier Reef Environmental Changes', 381 'Corinth Active Rift Development' and 389 'Hawaiian Drowned Reefs'.

A media event is planned for the EGU 2019 on Expedition 381.

An in-country press launch for Expedition 389 and a media event at the AGU 2019 on Expedition 389 are planned. Outreach is very important for Expedition 389 because there is a strong cultural heritage in Hawaii that must be acknowledged. Some scientific activities (e.g. geothermal installation, large observatory) have been stopped by native communities. Therefore, communication with native communities is crucial right at the start of the expedition planning. Removal of material from the island, impact on cultural sites and recognition of the cultural traditions have to be investigated. Preparation of exhibitions for aquariums and visitor centres on Hawaii are discussed. Outreach possibilities include 1) displays and lectures in aquariums and Cultural Centres before and during the offshore phase; 2) an in-country practitioner involved as a Science Communicator; 3) visits to the vessels and the OSP; 4) in-flight magazines and 5) liaison with Andrew Revkin, the Strategic Advisor for National Geographic on environmental and science journalism. The Communication Plan will be written and ship banners will be prepared for Expedition 389. A Co-chief Scientists meeting for Expedition 389 will be held in February 2019.

There is an enquiry from the Australian National Museum (ANM) in Canberra to help contribute to a permanent exhibition on the Great Barrier Reef and palaeoclimate. They asked for two core replicas of Expedition 325. ANZIC, ANM and possibly Geoscience Australia may be able to help with funding. It is suggested to showcase this at the ICP 2019 in Sydney before moving it to Canberra.

There was a request to collaborate for a 3-months exhibition promoting IODP, which is planned for March to May 2019 in the UK. Another request came from the Imperial University College in London for a 1-month display in June 2019 on fault zones and subductions. They are interested in the Chicxulub core replicas.

32 ECORD Outreach 2019 and beyond – 2019 budget (N. Hallmann)

(14:36)

N. Hallmann presented a forward look to ECORD's 2019-23 outreach activities on behalf of the ECORD OTF.

In October 2017 the ECORD Council approved the proposed reorganisation of the ECORD outreach activities and encouraged the OTF to start developing this new strategy and producing relevant resources in 2018 (ECORD Council Consensus 17-10-22).

N. Hallmann continued to summarize communication channels and resources for the different target audiences: scientists, teachers, medias, donators and the general public. Outreach towards the general public has to be improved and ECORD should reach out to potential donators and stakeholders.

N. Hallmann presented the members of the ECORD Outreach Task Force. The current ECORD Outreach Coordinator, Patricia Maruéjol, will retire at the end of April 2019 and therefore a call for an EMA Outreach Officer starting on 1 January 2019 was issued in June 2018. Consequently, the new EMA Outreach Officer, Malgorzata Bednarz, will have a 4-months overlap with P. Maruéjol. Overall, 89 applications from 25 countries were received for the EMA Outreach Officer position. Five candidates were interviewed.

There are four ECORD Outreach packages: 'Basic', 'Donators', 'Expeditions' and 'General public'.

The 'Basic' outreach package includes the ECORD Newsletter, ECORD Annual Report, flyers, logos, core replicas, conferences, ECORD website and goodies (see Agenda Item 30). The budget for the basic outreach package in the amount of $66,400 USD was approved at the 2018 ECORD Council Sping meeting (ECORD Council Consensus 18-06-08).

'Donators' outreach package: In October 2017 the ECORD Council mandated EMA to set up plans to raise external funding in support of ECORD activities (ECORD Council Consensus 17-10-02). Following this decision, the OTF started to produce relevant material, an ECORD image video and brochure. EMA will use this material to reach stakeholders, potential funders and decision makers in order to increase ECORD's visibility and to raise funds. The budget for the 'Donators' outreach package in the amount of $11,200 USD was approved at the 2018 ECORD Council Sping meeting (ECORD Council Consensus 18-06-09). This one-time investment (FY19) includes the production of a 8-12 page brochure and a 3-5 minutes ECORD showcase video. During the OTF meeting on 5 November 2018 the group discussed the first draft of the 12-page image brochure, which was produced by Alex Ingle (ELU Images, UK). The first draft of the 4-5 minutes ECORD showcase video was presented at the meeting. The voiceover was done by Iain Stewart (UK). Comments on the brochure and the video were sent back to Alex Ingle and the OTF is awaiting the next drafts.

DISCUSSION on ECORD showcase video:

M.-S. Seidenkrantz stated that the video seems to be for people knowing about ECORD and IODP. It could be difficult to understand for people not knowing the programme, and therefore, an introduction and more explanations may be useful (M.-S. Seidenkrantz). First IODP should be explained and then ECORD should be introduced. The purpose of the programme needs to be added (M.-S. Seidenkrantz). The video should target people not knowing anything about ECORD and IODP (N. Hallmann). The link between ECORD and IODP is missing and it could be difficult to understand the difference between ECORD and IODP (A. Voelker). An animated map could be used to better explain the relationship between ECORD and IODP (N. Hallmann). Further issues, like archiving the cores in core repositories and that 50% of the sailing scientists are young researchers, are still missing (N. Hallmann). The video should be introduced with remarks, such as 70% of the planet is covered with water and a drill rig needs to be shown (J. Behrmann). J. Henderiks asked if this video aims at potential contributors or research councils. The video targets any kind of sponsorships for educational or outreach activities, expedition-related support or tools and equipments (N. Hallmann). The distribution of the video still has to be discussed and the potential use of subtitles will be considered (N. Hallmann). Voiceovers can be done in any language (J. Behrmann).

'Expeditions' outreach package: ECORD Outreach Officers might sail on selected (not every year) MSP expeditions following approval by the ECORD Council. The main target is to produce TV documentaries. The estimated budget is of $30,000 USD. ECORD Outreach Officers will probably only sail on MSP expeditions, except for FY19 when Vivien Cumming will sail as an ECORD Outreach Officer on the *JR* during Expedition 379 'Amundsen Sea West Antarctic Ice Sheet History'. Vivien Cumming targets the general public and her deliverables are the followings: a short (BBC) film, photo story, blog, social media, ship-to-shore broadcasts, children's TV series, photographic exhibition, scientists outreach workshops and website media (see Agenda Item 27). At the 2018 ECORD Council Sping meeting the ECORD Council approved a FY19 budget of $30,000 USD to sail Vivien Cumming (ECORD Council Consensus 18-06-10).

COMMENT on ECORD Outreach Officers:

After Expedition 379 'Amundsen Sea West Antarctic Ice Sheet History' ECORD will probably not sail Outreach Officers on the JR as they will be counted against participation levels and would replace a scientist (G. Camoin). MSP expeditions are more flexible in terms of hosting Outreach Officers, offshore and onshore. The OTF should select MSP expeditions and propose one or two TV documentaries for the next four MSP expeditions to the ECORD Council for approval (G. Camoin). The budget of $30,000 USD is the amount needed to start the production of a TV documentary.

'General public' outreach package: At the 2018 ECORD Council Sping meeting the ECORD Council postponed its decision regarding the potential funding of outreach material under the package 'General public', dedicated to the organisation of temporary exhibitions at museums and aquariums. N. Hallmann presented the Pufferfish spherical display system, which could be the centre of exhibitions. This display system could improve ECORD's communication and interaction towards the general public. The costs for buying this display system, including service and content development over five years, are of about $230,000 USD. The annual investment would be of $50,000 USD from FY19 to FY23 and includes shipping (two moves per year) of this system. Additional material, such as 3D printed microfossils, could be used for exhibitions, but also in classrooms. No additional budget is needed as these costs can be included into the 'Basic' outreach package. Another idea would be the production of a virtual journey into a borehole.

ECORD Information Database: At the 2018 ECORD Council Sping meeting the ECORD Council approved the funding in FY19 of an update of the ECORD Information Database with a maximum of $18,000 USD (ECORD Council Consensus 18-06-12). One Action Item was to circulate options concerning this update to the ECORD Council members who will decide on the updates to develop. All changes like the access to the database, the architecture, the search/post function, the modernisation and linking the database to the ECORD website are essential. Only the export of data as graphics would be optional, but is not necessary and relatively expensive. This option was not included in the approved budget and would come in addition.

N. Hallmann summarized the ECORD outreach budget for FY19-23:

	FY 19 (KUS$)	FY 20 (KUS$)	FY 21 (KUS$)	FY 22 (KUS$)	FY 23 (KUS$)
Basic	66.4	66.4	66.4	66.4	66.4
Donators	11.2	-	-	-	-
Expeditions	30.0	30.0	30.0	-	30.0
General public	50.0	50.0	50.0	50.0	50.0
Database	18.0	-	-	-	-
TOTAL	175.6	146.4	146.4	116.4	146.4

The total outreach budget represents 0.7-1.0% of the ECORD budget.

DISCUSSION on the 'General public' outreach package:

The 3D printing itself is not the expensive part, but the CT scanning (A. Voelker). Attention has to be paid to the copyright (A. Voelker). At the Foraminifera Conference, which was held in Edinburgh, a group linked to Silvia Spezzaferri in Switzerland prints foraminifera and radiolaria more commercially (A. Voelker). Formatting the data is also very time-consuming and may take a whole day for one microfossil (N. Hallmann).

J. Henderiks asked about the expected general public return. It could be possible to get parts of the invested money back by getting a certain amount of the entrance fees for museums and aquariums. This was already done by our U.S. and Japanese colleagues (N. Hallmann). J. Henderiks asked if potential places for exhibitions have already been contacted. So far, a list of museums and aquariums was compiled together with the ESSAC delegates and C. Cotterill has contacts to various museums (N. Hallmann). The exhibition set up may vary from place to place depending on their expectations and the available space (N. Hallmann). J. Henderiks questions the added impact to reach out to the general public. Outreach towards the general public is ECORD's duty as ECORD's budget is based on taxpayers money, in addition, ECORD could maybe balance its outreach expenses with getting money from the museum entrance fees (N. Hallmann). Outreach is important, but it has to be decided if this expense is really necessary (J. Henderiks). The Swedish Council delegate is convinced that every quarter million of dollars not spent on drilling is not desirable (J. Henderiks). In some years ECORD lost half a million of dollars due to the currency exchange rates, i.e. the outreach expenses are in the noise as they present less than 1% of the ECORD budget (N. Hallmann). This investment in outreach may help ECORD to increase its visibility particulary facing the end of the current programme (N. Hallmann). J. Behrmann highlighted that the FY19 budget request from NASA is also in the order of 1% of the total budget. In the public sector in France 1% of the budget has to be spent for the general public (G. Ceuleneer).

The Pufferfish spherical display system is an excellent tool for exhibitions and conferences as there are many possible applications (H. Kleiven). Outreach in the Geoscience community is very important. Science is outreach (H. Kleiven). Research, education and outreach are linked into one common sphere (H. Kleiven). Any layers developed for ECORD and IODP may be used on all other existing Pufferfish systems (C. Cotterill). Recently, the Pufferfish company started to install a programme for Virtual Reality headsets (C. Cotterill).

D. Hardy said that the $250,000 USD could also be used to produce five very good videos, which could be shown on YouTube and reach a large number of people. This could be a better approach instead of a one-time investment into this Pufferfish system (D. Hardy). Less people will watch these videos compared to the number of visitors in various museum exhibitions over a couple of years (N. Hallmann). Furthermore, all age classes can be reached in museums (N. Hallmann). YouTube videos produced on the U.S. side barely exceed 2,000 views and events at the American Museum of Natural History reach 7,000-10,000 people every day (C. Brenner). Money from potential donators could be invested in outreach activities (C. Brenner). The U.S. pays the American Museum of Natural History to get access to various target audiences (C. Brenner). ECORD just started to produce

resources to raise external funds, which can be used for future investments in outreach activities (N. Hallmann). In 2017 the Deep Ocean exhibition was organised for 79 days at a museum in Tokyo and 670,000 people visited this exhibition (N. Eguchi). Museum exhibitions reach more people than YouTube and the social media channels (N. Eguchi).
F. Abrantes mentioned the problem with the language for people, especially kids, not speaking English, and asked about any difficulties regarding shipping this system. The Pufferfish can be programmed accordingly to solve the language problem and it can also be used more visually depending on the exhibition (N. Hallmann). Shipping service is included in the quotation (N. Hallmann). Different software versions solve the language problem (A. Morris). Nowadays kids in many countries are used to the English language (G. Ceulener). Setting up museum exhibitions needs attractive display systems like the Pufferfish (A. Morris). G. Ceuleneer agrees with the investment in the Pufferfish as it is a perfect tool to attract people in museums and can be seen as an investment for the future. Shipping insurance should be considered (G. Ceuleneer). This service should be included in the qutation under the shipping item, but it needs verification (N. Hallmann).
The business model is not fully developed (J. Henderiks). It is important to explore which museums would be ready to host the Pufferfish and how many moves a year are anticipated. More market research is needed (J. Henderiks). The question is if ECORD wants outreach or not (G. Lüniger). Outreach can only be done when people are attracted with catchy tools like the Pufferfish (G. Lüniger). It will be too late for the programme if outreach is not done now (G. Lüniger).

ECORD Council Consensus 18-11-10:
The ECORD Council approves an additional annual outreach budget of $50,000 USD from 2019 through 2023 for the production of material dedicated to the organisation of temporary exhibitions at museums and aquariums. This budget will be administered by the ECORD Managing Agency at the CEREGE, Aix-en-Provence, France.

In favour: 12, **Abstain**: 2, **Against**: 0, **Absent**: 1

33 New EMA Outreach Officer – self introduction (M. Bednarz)

(15:38)
Malgorzata Bednarz, the new EMA Outreach Officer starting on 1 January 2019, introduced herself.

(15:51)
coffee break
(16:15)

34 USSSP outreach activities (C. Brenner)

(16:15)

The U.S. developed an Education and Outreach White Paper with five overarching goals.

C. Brenner presented the primary goals of the USSSP Outreach program:

- **Raise awareness of Earth science in general, and IODP in particular, and its central role in our understanding of the Earth's past, present and future.**
- Promote and support the science of IODP *specifically*, and assure a steady influx of future IODP leaders, by encouraging and providing opportunities for students and educators to participate in IODP expeditions and/or research.
- Increase ethnic and gender diversity in IODP and geosciences in general.

Core outreach activities include the Onboard Outreach Program, Ocean Discovery Lecture Series, AMNH collaboration, joidesresolution.org website, social media, *Ocean Discovery* newsletter, conferences LDEO Open House, In Search of Earth's Secrets exhibition, port call outreach and press releases.

Onboard Outreach Officers: Over five expeditions (369, 372, 374, 375 and 376) twelve Outreach Officers sailed on the *JR* (two from ECORD). Overall, 244 Ship-to-Shore live video events took place with 10,609 viewers.

American Museum of Natural History Partnership: Once a year the AMNH organises "Dinos After Dark" with talks on the Expedition 364. This year this event attracted 700 participants. The Milstein Science Series focused this year on technology in the oceans with Beth Orcutt presenting a talk on microbiology and IODP, and a sip-to-shore broadcast with Expedition 374. More than 7000 participants came to this one-day event.

The joidesresolution.org website has 100,000 hits per year. Not only the scientific community, but also the wider audience visits this website.

Social Media: Facebook (@joidesresolution) with 8500 followers, Twitter (@TheJR) with 4200 followers, Instagram (@joides_resolution) with 1200 followers, YouTube channel and Reddit (Ask Me Anything) AMA events.

The *Ocean Discovery* newsletter is published twice a year.

In Search of Earth's Secrets exhibition: The funds came from an external NSF grant. The exhibition is composed of a giant, inflatable, walkable *JR* with a media wall in the interior. ScienceMedia (Netherlands) created an eight-minute film loop with 4-5 different, IODP-related stories. This exhibition travels to several locations pre-selected by an Advisory Committee that was part of the initial proposal. People can sign up for it in the U.S. Every fall a LDEO Open House exhibition is organised and the *JR* exhibition

was brought to the last to LDEO Open House. Kids and adults responded very positive to this exhibition.

International collaborations: Non-U.S. Outreach Officers sail on the *JR*, joint conference booths and the AGU Town Hall reception.

35 J-DESC & CDEX outreach activities (N. Eguchi)

(16:27)

Outreach activities between September 2017 and September 2018 include open ship events, expedition outreach, booths at scientific conferences, a special exhibition, media and booklets.

Two open ship events were organised in September and December 2017 with 4,265 visitors per day and 6,865 visitors in 1.5 days, respectively.

Expedition outreach: Every expedition has its own website where daily updates can be found. See https://www.jamstec.go.jp/chikyu/e/nantroseize/ to follow the daily updates on Expedition 358 'NanTroSEIZE Plate Boundary Riser 4'. Currently, 22,165 people are following the daily updates of this expedition on Twitter.

Conference booths: Materials were provided and/or exhibition booths were organised at various conferences and events: AGU 2017, J-DESC Future Workshop, EGU 2018, JpGU 2018, J-DESC Townhall Meeting 2018, The Geological Society of Japan, ICAMG and AGCC 2018.

A special exhibition "Deep Ocean 2017" was organised at the National Museum of Nature and Science in Tokyo. Overall, there were 617,062 visitors from 11 July to 1 October. Up to 7,811 people visited the exhibition per day, which was a record for the museum. A mini symposium on JFAST was held at the museum and webcasted (15,965 viewers).

JAMSTEC had a special collaboration with Nintendo and the game "Nintendo Switch Splatoon 2" was developed.

Media: TV, radio, magazines, newspapers, internet, etc.; 231 domestic interviews; photos and movies: 9 international and 86 domestic

Booklets, magazines, brochures, newsletters: Newton Special *Chikyu* Issue, JAMSTEC magazine "Blue Earth" vol. 151, 152, 155, brochure of Japan-based scientists' activities in IODP, J-DESC Newsletter vol. 11

A French TV team from 'France 5' produced a documentary on Expedition 358 'NanTroSEIZE: Plate Boundary Deep Riser 4'.

CONCLUSIONS

37 Next ECORD Council-ESSAC meetings (G. Lüniger/E. Humler/A. Morris)

(16:38)

ECORD Council Consensus 18-11-11:
The ECORD Council decides that the next ECORD Council Spring meeting will be held for one day during the week of June 3 or the week of June 17 in Lisbon.

In favour: 14, **Abstain**: 0, **Against**: 0, **Absent**: 1

ECORD Council Consensus 18-11-12:
The ECORD Council decides that the ECORD Council-ESSAC meeting #7 will be held in Dublin on November 5th and 6th, 2019.

In favour: 14, **Abstain**: 0, **Against**: 0, **Absent**: 1

A proposal for hosting the ECORD Council-ESSAC meeting #7 in Granada, Spain, will be considered for one of the next ECORD meetings.

36 Review of Consensus and Actions (N. Hallmann/All)

(16:46)
N. Hallmann summarized the consensus items.

ACKNOWLEDGEMENTS

ECORD Council Consensus 18-11-13:
The ECORD community expresses its warm thanks to Patricia Maruéjol for her valued contributions to EMA and the IODP outreach entities since the start of ECORD in 2003. She has been instrumental in creating and developing the current ECORD outreach resources. Patricia received the first newly created 'ECORD Award' at the occasion of the ECORD Council-ESSAC #6 meeting in recognition of her outstanding contribution to ECORD.
We will miss her in ECORD meetings and at the conference booths. We wish her the best for her retirement during which she will certainly review the successive ECORD Newsletters issues.

In favour: 14, **Abstain**: 0, **Against**: 0, **Absent**: 1

ECORD Council Consensus 18-11-14:
The ECORD Council warmly thanks Guido Lüniger for his bell-controlled leadership as Chair of the ECORD Council in 2018.

In favour: 14, **Abstain**: 0, **Against**: 0, **Absent**: 1

ECORD Council Consensus 18-11-15:
The ECORD Council and ESSAC warmly thank Bernard Westerop and the NWO staff for organizing and hosting their 6th joint meeting during which all attendees have highly appreciated the NWO facilities and the city of Den Haag.

In favour: 14, **Abstain**: 0, **Against**: 0, **Absent**: 1

G. Lüniger closed the meeting at 16:57.

LIST OF ACRONYMS

ADP: Amphibious Drilling Proposal
AGI: American Geosciences Institute
AGU: American Geophysical Union
AMA: Ask Me Anything
AMNH: American Museum of Natural History
ANM: Australian National Museum
ANU: Australian National University
ANZIC: Australian and New Zealand IODP Consortium
APL: Ancillary Project Letter
ArcOP: Central Arctic Paleoceanography, IODP Expedition 377
AWI: Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, Bremerhaven, Germany
BCR: Bremen Core Repository
BGS: British Geological Survey
CDEX: Center for Deep Earth Exploration
CEREGE: Centre Européen de Recherche et d'Enseignement des Géosciences de l'Environnement - Centre for Research and Education in Environmental Geosciences, Aix-en-Provence, France
CIB: *Chikyu* IODP Board
CFI: Canada Foundation for Innovation
CNRS: Centre National de la Recherche Scientifique - National Center for Scientific Research, France
CPP: Complementary Project Proposal
CRISP: Costa Rica Seismogenesis Project
DFG: Deutsche Forschungsgemeinschaft - German Research Foundation
DIS: Drilling Information System
DLP: Distinguished Lecturer Programme
DSDP: Deep Sea Drilling Project
ECORD: European Consortium for Ocean Research Drilling
EFB: ECORD Facility Board
EGU: European Geosciences Union
EMA: ECORD Managing Agency
EPC: European Petrophysics Consortium
EPOS: European Plate Observing System
ESO: ECORD Science Operator
ESSAC: ECORD Science Support and Advisory Committee
ETH: Eidgenössische Technische Hochschule Zürich - Swiss Federal Institute of Technology, Zurich
FCO: Foreign and Commonwealth Office
FY: Fiscal Year
GEOMAR: Helmholtz Centre for Ocean Research Kiel
GFZ: GeoForschungsZentrum - German Research Centre for Geosciences, Potsdam, Germany
GOM: Gulf of Mexico
IBM: Izu-Bonin-Mariana
ICAMG: International Conference on Asian Marine Geology
ICDP: International Continental Scientific Drilling Program
ICP: International Conference on Paleoceanography
IGSN: International Geo Sample Number
IKC: In-kind contribution
INSU: Institut National des Sciences de l'Univers - National Insitute of Sciences of the Universe, France
INVEST: IODP New Ventures in Exploring Scientific Targets
IODP: Integrated Ocean Drilling Program (2003-2013) & International Ocean Discovery Program (2013-2023)
ISC: International Sedimentological Congress
ISOLAT: Integrated Southern Ocean Latitudinal Transect
IWG+: International Working Group Plus
JAMSTEC: Japan Agency for Marine Earth Science and Technology
J-DESC : Japan Drilling Earth Science Consortium
JOIDES: Joint Oceanographic Institutions for Deep Earth Sampling
JPFY: Japanese Fiscal Year
JpGU: Japan Geoscience Union
JR: *JOIDES Resolution*
JRFB: *JOIDES Resolution* Facility Board
JRSO: *JOIDES Resolution* Science Operator
KCC: Kochi Core Center
KIGAM: Korea Institute of Geoscience and Mineral Resources
LDEO: Lamont-Doherty Earth Observatory
LFO: Large Facilities Office
LHR: Lord Howe Rise
LTBMS: Long-Term Borehole Monitoring System
LWD: Logging While Drilling
MAD: Moisture & Density
MARUM: Zentrum für Marine Umweltwissenschaften der Universität

Bremen - Center for Marine Environmental Sciences, University of Bremen
mbsf: metres below seafloor
MDP: Multi-phase Drilling Project
MeBo: Meeresboden-Bohrgerät
MEXT: Ministry of Education, Culture, Sports, Science & Technology, Japan
MoU: Memorandum of Understanding
MSCL: Multi-Sensor Core Logger
MSP: Mission-specific platform
NanTroSEIZE: Nankai Trough SEIsmogenic Zone Experiment
NERC: Natural Environment Research Council
NESSC: Netherlands Earth System Science Centre
NSF: National Science Foundation
NWO: Nederlandse Organisatie voor Wetenschappelijk Onderzoek - Netherlands Organisation for Scientific Research
OCE: Division of Ocean Sciences, NSF
ODP: Ocean Drilling Program
OSP: Onshore Science Party
OTF: Outreach Task Force
PMO: Program Member Office
PROCEED: Expanding Frontiers of Scientific Ocean Drilling
RD2: Rockdrill 2
SC: Steering Committee
SCORE: Shallow Core Program
SEP: Science Evaluation Panel
SIO: Scripps Institution of Oceanography
SNSF: Swiss National Science Foundation
SOR: School of Rock
SPADE: Scientific Proposals for Andamans Drilling Endeavour
SPRS: Swedish Polar Research Secretariat
TAT: Technical Advisory Team
TIME: Tyrrhenian Magmatism & Mantle Exhumation
USSSP: U. S. Science Support Program
XRF: X-ray fluorescence