



ECORD Facility Board Meeting #9

28 October 2020

virtual meeting

MINUTES

AGENDA

Wednesday, 28th October

14:00 – 17:00

- 1. Introduction and meeting agenda approval (G. Uenzelmann-Neben)**
- 2. ECORD budget (G. Camoin)**
- 3. Expedition 377: Arctic Ocean Paleoceanography (ArcOP)**
 - 3.1 - Scientific objectives and background (G. Uenzelmann-Neben / D. McInroy)
 - 3.2 - Outcomes of discussions between ECORD and SPRS
 - 3.2.1 - Operational opportunities (D. McInroy / G. Tulloch)
 - 3.2.2 - Contractual issues and budget (G. Camoin)
 - 3.3 - General discussion (G. Uenzelmann-Neben / All)

ROSTER

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* Apologies

1. Introduction and meeting agenda approval

(14:07)

G. Uenzelmann-Neben opened the meeting.

ECORD Facility Board Consensus 20-10-01:

The ECORD Facility Board approves the agenda of the ECORD Facility Board Meeting #9.

2. ECORD budget

(14:09)

G. Camoin presented the ECORD FY20 and FY21 budgets (Tables 1-4).

At the moment ECORD has 15 member countries. France, Ireland and Spain are paying in euros, Denmark in kroner and the UK in pounds. The ECORD member contributions do 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. About 95% of the ECORD budget is spent on IODP expeditions. ECORD contributes \$7.12M USD to the annual funding of the *JOIDES Resolution* and \$1M USD to the annual funding of the *Chikyu*.

G. Camoin summarized the ECORD budget situation for FY20 (Tables 1, 2).

Table 1: ECORD FY20 member contributions

FY20 Contributions (US\$)	
DFG (Germany)	5,600,000
CNRS (France) *	3,908,000
UKRI (United Kingdom) *	3,364,000
Forskningradet (Norway)	1,100,000
FNS (Switzerland)	600,000
NWO (The Netherlands)	600,000
CNR (Italy)	500,000
VR (Sweden)	400,000
MCIN (Spain) *	163,000
DAFSHE (Denmark) *	146,000
GSI (Ireland) *	109,000
CCOD (Canada)	106,000
ÖAW (Austria)	100,000
FCT (Portugal)	90,000
Academy of Finland	80,000
TOTAL	16,866,000
* Contributions in other currencies	

Table 2: ECORD FY20 budget

ECORD FY20 Budget (US\$)		
FY19 balance	18,829,700	
FY20 contributions	16,866,000	
ECORD-NSF MoU		7,120,000
ECORD-MarE3 MoU		1,000,000 *
ESO		3,151,000 *
EMA		305,880
MagellanPlus		86,800
IODP Chairs Support		169,000
ESSAC		319,064
BCR		392,162
Outreach basic		66,400
TOTAL	35,695,700	12,610,306
Expected FY20 balance	23,085,394	
* X 386 postponed – operational costs deduced from budget		

FY19 ended with a positive balance of \$18.83M USD, which was carried over to FY20. Together with the FY20 member contributions of \$16.87M USD (Table 1), the FY20 income will yield \$35.69M USD. The expenses will be of \$12.61M USD without the implementation of an MSP expedition in 2020. IODP Expedition 386 has been postponed

and the operational costs have been deduced from the ECORD FY20 budget. FY20 should finish with a positive balance of \$23.08M USD (Table 2). Potential additional contributions (cash, IKCs) are not considered in this calculation.

G. Camoin summarized the ECORD budget situation for FY21 (Tables 3, 4).

Table 3: ECORD FY21 member contributions

FY21 Contributions	
DFG (Germany)	5,600,000 US\$
CNRS (France)	3,590,000 €
UKRI (United Kingdom)	2,600,000 £
Forskingsradet (Norway)	1,100,000 US\$
FNS (Switzerland)	600,000 US\$
NWO (The Netherlands)	600,000 US\$
CNR (Italy)	600,000 US\$
VR (Sweden)	400,000 US\$
MCIN (Spain)	168,000 US\$
DAFSHE (Denmark)	1,000,000 DKR
GSI (Ireland)	100,000 €
CCOD (Canada)	115,000 US\$
ÖAW (Austria)	100,000 US\$
FCT (Portugal)	90,000 US\$
Academy of Finland	80,000 US\$
TOTAL	16,966,000

Table 4: ECORD FY21 budget

ECORD FY21 Budget (US\$)		
FY20 balance	23,085,394	
FY21 contributions	16,966,000	
ECORD-NSF MoU		7,120,000
ECORD-MarE3 MoU		3,000,000*
ESO		3,123,155 *
EMA		343,480
MagellanPlus		86,800
IODP Chairs Support		169,000
ESSAC		290,675
BCR		365,490
Outreach basic		56,150
TOTAL	40,051,394	14,554,750
Expected FY21 balance	25,496,644	
* Including X386 implementation costs		

The FY21 member contributions will be of \$16.97M USD (Table 3). Together with the positive FY20 balance the FY21 income will yield \$40.05M USD (Table 4). The FY21 expenses have been approved by the ECORD Council at its June 2020 meeting and they will be of \$14.55M USD. FY21 should finish with a positive balance of \$25.5M USD (Table 4). The ESO FY21 expenses include the implementation of Expedition 386: Japan Trench Paleoseismology. ECORD provides \$2M USD to MarE3 to use the Japanese vessel RV *Kaimei* for IODP Expedition 386, in addition to the annual payment of \$1M USD for the *Chikyu*. Potential additional contributions (cash, IKCs) are not considered in this calculation. MarE3 provides \$2.5M USD as IKC for IODP Expedition 386.

G. Camoin continued to present the ECORD FY20-FY23 budget. ECORD might spend about \$36M USD to implement MSP expeditions in 2022 and 2023. As IODP Expedition 386 had to be postponed due to the COVID-19 crisis, no MSP expedition has been implemented from 2018 to 2020.

ECORD FY20-FY23 budget (MUS\$)				
	FY 20	FY 21	FY 22	FY 23
Contributions	16.866	16.966	16.866	16.866
Total income	35.695	40.051	42.366	47.736
Est. fixed costs	12.6	11.55	11.5	11.5
MSP expeditions	X386 postponed	X386 3.0	TBD	TBD
Balance	23.1	25.5	30.87	36.236

Following proposals are at the EFB:

637-Full2: New England Shelf Hydrogeology

730-Full2: Sabine Bank Sea-Level

Expedition 373: Antarctic Cenozoic Paleoclimate

Expedition 377: Arctic Ocean Paleoceanography (ArcOP)

Expedition 389: Hawaiian Drowned Reefs

Concerning ArcOP, ECORD should receive \$0.6M USD from the Federal Institute for Geosciences and Natural Resources (Bundesanstalt für Geowissenschaften und Rohstoffe BGR) in Hannover and \$0.9M USD from the Swedish Polar Research Secretariat (SPRS).

3. Expedition 377: Arctic Ocean Paleoceanography (ArcOP)

3.1 - Scientific objectives and background

(14:14)

G. Uenzelmann-Neben summarized the scientific objectives and the history of proposal #708.

This proposal is built on the outcome of the ACEX expedition in 2004. ACEX was highly successful, but has three important limitations: 1) the ACEX sequence possibly contains a large hiatus spanning the time interval from late Eocene to middle Miocene or an interval of strongly reduced sedimentation rates; 2) a generally poor recovery during ACEX prevented a detailed and continuous reconstruction of the Cenozoic climate history; and 3) a higher-resolution reconstruction of Arctic rapid climate change during Neogene to Pleistocene times could not be reached.

The overall goal of proposal #708 is to recover a complete stratigraphic sedimentary record on the southern Lomonosov Ridge in order to reconstruct the Cenozoic climate history of the central Arctic Ocean.

In June 2019, the proposal was rescheduled to the drilling of a deep hole at site LR-11B (900 mbsf, water depth of 794 m) and a shallow hole at site LR-10B (50 mbsf, water depth of 890 m). Drilling at site LR-11B should be able to target the orange reflection (lower Eocene).

In November 2019, the ECORD Council decided to schedule this expedition in FY21 (ECORD Council Consensus 19-11-04). ESO continued vessel and ice management scoping with potential suppliers and issued a Call for Tenders for expedition infrastructure and services.

In June 2020, ArcOP has been rescheduled for 2021. This is the first time since ACEX that ECORD has the actual costs for an Arctic drilling project. All bids were non-compliant compared to the tender specification. ESO could not amend the specification without re-tendering, but even if re-tendered, the high costs would still be an issue. There was no time to re-tender, i.e., ArcOP could not be implemented in 2021.

3.2 - Outcomes of discussions between ECORD and SPRS

3.2.1 - Operational opportunities

(14:24)

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

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ESO recommends that SPRS should be granted approval to continue detailed negotiations with the suppliers, with a view to addressing the cost uncertainty for ECORD to reach a final decision by the end of 2020. ESO will contribute to the discussions with the potential drilling suppliers.

ESO has identified a new tendering strategy for the alternative IODP expedition based on proposal 637-Full2: New England Shelf Hydrogeology in 2022, in the event that ArcOP is not feasible. This allows the final decision for ArcOP to be made at the end of 2020, while still keeping the option open for the alternative New England expedition in 2022.

DISCUSSION about IODP Expedition 377: Arctic Ocean Paleoceanography (ArcOP):

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3.2.2 - Contractual issues and budget

(15:17)

G. Camoin presented the timeline for ArcOP. A series of meetings has been organised from June to September 2020 involving ESO, SPRS and the EMA Director. SPRS confirmed that they volunteer to look at platform possibilities and negotiations with suppliers have been initiated. At the end of September, ECORD received a report from SPRS entitled 'ArcOP 2022: Procuring an integrated solution'. The legal frame would be a Research Agreement between CNRS (ECORD) and SPRS; and on 23 October 2020, a draft has been sent to SPRS. On 26 October, SPRS provided more information concerning possible options. At this meeting, the EFB needs to decide if SPRS should be mandated to continue its negotiations with the suppliers. If the EFB recommends to continue negotiations and to take a final decision on ArcOP in December when the fleet is known, on 29 October, the ECORD Council needs to take a decision based on this EFB recommendation. In November and December, there would be final discussions and negotiations among the suppliers, SPRS, ESO and the EMA Director. Finally, ESO would recommend possible/affordable options and in December 2020 the ECORD Council will need to take a final go/no-go decision on ArcOP.

In case of implementation of ArcOP, the CNRS will finalise the Research Agreement with SPRS and ECORD would make a down payment. There will be a legal agreement and technical annexes with the scope of collaboration for ArcOP (description of the fleet) and the distribution of costs. An ECORD Council Consensus would be needed to confirm the ECORD budget to be transferred to SPRS. A copy of the 2019-2023 ECORD MoU is always attached as a guarantee for the CNRS. Following the CNRS-SPRS Research Agreement, SPRS would contract a service provider and then subcontract the icebreakers, the drilling vessel and the ice management.

DISCUSSION about an expedition based on proposal 637-Full2: New England Shelf Hydrogeology:

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(15:34)

coffee break

(15:46)

3.3 - General discussion

(15:46)

DISCUSSION about IODP Expedition 377: Arctic Ocean Paleoceanography (ArcOP):

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ECORD Facility Board Consensus 20-10-02:

The ECORD Facility Board decides not to send back Proposal #708 'Arctic Ocean Paleooceanography' to SEP for additional review.

ECORD Facility Board Consensus 20-10-03:

The ECORD Facility Board recommends a continuation of the negotiations between the Swedish Polar Research Secretariat (SPRS) and the service suppliers concerning the implementation of IODP Expedition 377: Arctic Ocean Paleooceanography (ArcOP) in FY22. ESO and EMA will have to be associated to the discussions. A definite deadline for a 'go/no-go decision' on ArcOP implementation by the ECORD Council is set for 10 December 2020 based on the recommendation of a fleet configuration by ESO and associated cost estimates.

ECORD Facility Board Consensus 20-10-04:

The ECORD Facility Board acknowledges the commitment of the Swedish Polar Research Secretariat (SPRS) to co-implement IODP Expedition 377: Arctic Ocean Paleooceanography (ArcOP) in FY22. The ECORD Facility Board is very grateful to SPRS to have provided a new momentum regarding the implementation of this expedition. The ECORD Facility Board recognizes that the SPRS Arctic contact network and experience have been of pivotal importance in this endeavor.

The meeting was closed at 16:34.

LIST OF ACRONYMS

ACEX: Arctic Coring Expedition	FNS: Fonds National Suisse de la Recherche Scientifique - Swiss National Science Foundation
AMS: Arctic Marine Solutions	FY: Fiscal Year
ArcOP: Central Arctic Paleoceanography, IODP Expedition 377	GSI: Geological Survey of Ireland
BCR: Bremen Core Repository	IKC: In-kind contribution
BGR: Bundesanstalt für Geowissenschaften und Rohstoffe - Federal Institute for Geosciences and Natural Resources	IODP: Integrated Ocean Drilling Program (2003-2013) & International Ocean Discovery Program (2013-2023)
BGS: British Geological Survey	JAMSTEC: Japan Agency for Marine Earth Science and Technology
CCOD: Canadian Consortium for Ocean Drilling	JOIDES: Joint Oceanographic Institutions for Deep Earth Sampling
CNR: Consiglio Nazionale delle Ricerche – National Research Council, Italy	JR: <i>JOIDES Resolution</i>
CNRS: Centre National de la Recherche Scientifique - National Center for Scientific Research, France	MarE3: Institute for Marine-Earth Exploration and Engineering
DAFSHE: Danish Agency for Science and Higher Education	mbsf: metres below seafloor
DFG: Deutsche Forschungsgemeinschaft - German Research Foundation	MCIN: Ministry for Science and Innovation, Spain
ECORD: European Consortium for Ocean Research Drilling	MEXT: Ministry of Education, Culture, Sports, Science & Technology, Japan
EFB: ECORD Facility Board	MoU: Memorandum of Understanding
EMA: ECORD Managing Agency	MSP: Mission-specific platform
EPC: European Petrophysics Consortium	NSF: National Science Foundation, USA
EPSP: Environmental Protection and Safety Panel	NWO: Nederlandse Organisatie voor Wetenschappelijk Onderzoek - Netherlands Organisation for Scientific Research
ESO: ECORD Science Operator	ÖAW: Österreichische Akademie der Wissenschaften - Austrian Academy of Sciences
ESSAC: ECORD Science Support and Advisory Committee	SEP: Science Evaluation Panel
EVTF: ECORD Vision Task Force	SPRS: Swedish Polar Research Secretariat
FCT: Fundação para a Ciência e a Tecnologia - National Funding Agency for Science and Technology	UKRI: UK Research and Innovation
	VR: Vetenskapsrådet - Swedish Research Council