

**12th Meeting of the
ECORD Science Support & Advisory Committee
(ESSAC)**

26th – 27th May, 2009
Hotel do Mar
Sesimbra, Portugal



ESSAC Office

Gilbert Camoin (Chair)

ESSAC Delegate France

Bonnie Wolff-Boenisch

ESSAC Science Coordinator

ESSAC Representatives

Fatima Abrantes (meeting host)

ESSAC Delegate Portugal

Rudiger Stein (vice-Chair)

ESSAC Delegate Germany

Menchu Comas

ESSAC Delegate Spain

Elisabetta Erba

ESSAC Delegate Italy

Rachael James

ESSAC Delegate UK

Lucas Lourens

ESSAC Delegate Netherlands

Judith McKenzie

ESSAC Delegate Switzerland

Xavier Monteys

ESSAC Delegate Ireland

Werner Piller

ESSAC Delegate Austria

Marit Solveig Seidenkrantz

ESSAC Delegate Denmark

Ian Snowball

ESSAC Delegate Sweden

Kari Strand

ESSAC Delegate Finland

Uli Wortmann

ESSAC Alternate Canada

Anneleen Foubert

ESSAC Exceptional Alternate Belgium

Observers/Guests

Patricia Maruéjol

EMA

Catherine Mével

EMA

Alan Stevenson

ESO

Apologies

Rudy Swennen

ESSAC Delegate Belgium

Jean-Pierre Henriët

ESSAC Alternate Belgium

Nalan Koç

ESSAC Delegate Norway

Kiki Kleiven

ESSAC Alternate Norway

Neil Banerjee

ESSAC Delegate Canada

Bryndís Brandsdóttir

ESSAC Delegate Iceland

1. Introduction

1.1 Call to order, introductions

G. Camoin welcomed all ESSAC delegates and observers to the 12th ESSAC Meeting in Sesimbra. He thanked F. Abrantes from IODP Portugal for the organization and logistics of the meeting. The ESSAC meeting started with the self-presentation of each participant.

1.2 Welcome and meeting logistics

F. Abrantes gave an overview about the general logistics as indicated in the agenda book.

1.3 Discussion and approval of the Agenda

G. Camoin called the ESSAC delegates attentions to changes in the agenda:

Items 2.1 "Lead Agencies and Implementing Organizations", 2.2 "SAS Executive Committee" as well as 3.1 "EMA - ECORD Council", all presented by C. Mével, had been transferred to Wednesday. Both presentations from B. Wolff-Boenisch "6.1 ECORD scholarships" and "6.2.3 2010 ECORD Summer Schools" originally scheduled on Wednesday 27th, had been brought forward to Tuesday 26th.

G. Camoin asked the ESSAC delegates, if they wished to add any other item on the agenda. The ESSAC delegates denied and approved the agenda as it was.

ESSAC Consensus 0905-01: ESSAC approves the agenda of its 12th meeting on May 26th – 27th, 09 at the Hotel do Mar in Sesimbra, Portugal.

1.4 Items since the 11th ESSAC Meeting/ESSAC Office news

B. Wolff-Boenisch summarised the undertakings and the action items that the ESSAC Office had be done and fulfilled during the reporting period from October 08 to May 09.

Part of the undertakings (and the fulfilment of the related action items) are centralised in the respective thematic themes, and details are given by the respective lecturers.

Staffing

An important part of the ESSAC Office tasks had been absorbed by the re-staffing of rescheduled expeditions. An important number of calls had been reissued to complete expeditions before the end of 2009 (<http://www.iodp.org/expeditions/>). The consequences of the rebirth of the Program kept the ESSAC Delegates very busy to rank incoming applications and to staff the respective expeditions adequately.

New Jersey Shallow Shelf

2 short-term call were issued on Jan 12th, 09 with a Feb. 1st, 09 deadline and on May 8th, 09 with a May 22nd, 09 deadline. Expertises required were terrestrial palynology and paleomagnetism respectively. In total 7 applications were received (G, CH, ES, F, BEL; 2 women, 2 PhDs, 2 Postdocs for the first call and 3 applications from I, SWE, NL, including only males and 2PhDs for the second call.

Bering Sea

A short-term call was issued on November 24th, 08 with a December 14th deadline. Expertises required were planktonic and benthic foram micropaleontology, radiolarian micropaleontology and sedimentology. The ESSAC office did receive 19 applications from F, G, UK, E, CH, NOR, NL, I and P. The applications came from 5 PhDs, 1 Postdoc and 1

Master. 12 women applied. Only 6 delegates ranked. The science party included 2 young researchers.

Shatsky Rise

The first call was issued on December 4th, 08 with a December 29th, 08 deadline, which has been prolonged to January 9th, 09. 13 applications arrived at the ESSAC office (F, G, UK, I, CH, NL and 1 from Ukraine). 5 PhDs and 2 Postdocs applied as well as 6 women. Only 8 delegates ranked the applications. A short-term call was issued on April 22nd, 09 with a May 9th, 09 deadline. Expertises required were structure geology (igneous) and/or physical properties. Only 2 new applications were sent from Can and the UK, amongst them 2 from women and 1 from a Master and from a 1 PhD student.

Canterbury Basin

For the Canterbury Basin Sea Level Expedition substantial undertakings have been done to staff this expedition. Besides, the first call and the first short-term call (ST1) last year a second (ST2) and a third short-term (ST3) have been issued. ST2 was issued on February 3rd, 09 with a February 26th, 09 deadline. ST3 was issued on May 22nd, 09 with a June 11th, 09 deadline. New expertises required were paleomagnetism, inorganic geochemistry (with experience in pore waters), and diatom micropaleontology for ST2 and sedimentology or radiolarian micropaleontology for ST3. For ST2 3 applications were received including 1 application from a female Postdoc.

NanTroSEIZE 319

2 calls for the NanTroSEIZE expedition 319 were issued: A first short-term call (ST1) in September (11th) 08 with a February 1st, 09 deadline and a second short-term (ST2) call in February 3rd, 09, with a March 29th, 09 deadline. Expertises needed were logging scientists and nannofossil specialists for ST1 and observatory specialists for ST2. Only 2 applications were sent, 1 for ST1 from France and 2 for ST2 from the UK and G. Neither women nor students applied for both calls.

NanTroSEIZE 322

1 call for the NanTroSEIZE expedition 322 was issued on October 2nd, 08 with an October 15th, 08 deadline. 13 applications from G, UK, F, CH and I, including 5 women as well as 4 PhD and 4 Postdocs student applications have been sent to the ESSAC Office. Only 6 ESSAC delegates ranked.

IODP SAS Panels

5 calls had been issued to anticipate the rotations of ECORD panel members in the different SAS panels 2 meeting head:

- A first SSEP call issued on October 6th, 08 with a February 15th, 08 deadline. 4 applications were sent to the ESSAC Office.
- For the SASEC nomination, the ESSAC Office asked the ESSAC delegates for nominations. Only 1 suggestion from NL was made.
- For SSP a call was issued on December 2nd, 08 with a March 1st, 09 deadline. 4 applications (UK, CAN) have been sent.
- For the EDP panel a call has been issued on March 18th, 09 with a May 3rd, 09 deadline. So far none applications have been sent.
- A second call will be issued in June 09 to replace R. Person as N. Lanteri (F) did withdraw its application.

> **ESSAC Action Item 0905-01:** The ESSAC office will issue a call to nominate new ECORD EDP panel members in June 09.

Done: The ESSAC Office issued a call on June 10th, 2009 with a July 12th, 2009 deadline.

> **ESSAC Action Item 0905-02:** The ESSAC office will issue a call to nominate new ECORD SSEP panel members in June 09.

Done: The ESSAC Office issued a call on June 11th, 2009 with a July 12th, 2009 deadline.

ECORD Grants

Regarding the ESSAC Consensus 0805-09 and the ESSAC Action Item 0805-21 (ESSAC envisages to create short-term ECORD post-graduate grants), the E&O subcommittee met electronically, in order to establish a list with the main grant criteria. The discussion paper summarising the main issues discussed at the 11th ESSAC Meeting in Tuebingen was presented at this meeting and further discussed in the breakout session (compare discussion results under item 5. "Breakout sessions").

Workshop "The future of IODP - Beyond 2013"

B. Wolff-Boenisch summarised all announcements of the 3 events to outline ECORD's vision of scientific drilling research beyond 2013, i.e.:

- On September 23rd, 08 - 1. Announcement EGU 09 Session & WS
- On November 10th, 08 - Call for abstracts
- On December 3rd, 08 - Web questionnaire
- On December 7th, 08 - 2 Announcement. EGU 09 Interdivision Session & WS
- On December 18th, 08 - Overview poster with all 3 events and corresponding deadlines
- On January 6th, 09 - Reminder Call for abstracts
- On February 10th, 09 - Reminder EGU 09 Session & WS
- On March 5th, 09 - Special invitation
- On March 31st, 09 - Agenda and logistics of WS

Announcements on the ESSAC Webpage

All issued calls have been announced on the ESSAC web page. Additional information was published on the webpage such as the call for proposals for ESF Magellan WS Series, for the Integrated Courses, the EU Workshop CAREX (Deep Biosphere and Extreme Environments) and the Position Vacancy of the new ESSAC Science coordinator as well as different conferences and workshops such as the "First Antarctic Climate Evolution (ACE) Symposium in September 09 in Grenada, Spain", the "Congress Deep-water circulation: Processes & Products", Pontevedra, Spain in June, 10 as well as the Workshop on "Melting, Magma, Fluids and Life - Challenges for the next generation of scientific ocean drilling into the oceanic lithosphere" at the NOC in the UK in July, 2009.

Under PARTICIPATION - SAILING - Submit Proposals - the Engineering Development Proposals have been announced.

Under EDUCATION - RESSOURCES - Scientific - the Magellan WS Reports can be found.

Statistics

B. Wolff-Boenisch directed the ESSAC delegate's attentions to the various presentations describing statistical data. Beside her presentation describing statistics regarding the applications, G. Camoin presented data regarding the science party compositions in his presentation under item 4.1.1 "Ranking procedures, quotas and statistics". In the agenda book the development of the increase of young scientists, the increase of women applications, the country's applications distribution by call and science party and the

application distribution of young researchers versus nominations on expeditions are described in more detail.

> **ESSAC Action Item 0905-03:** ESSAC welcomes the future development of the monitoring of statistics data.

Special Thanks

In her last slide B. Wolff-Boenisch current ESSAC Science coordinator thanked all ESSAC delegates and alternates as well as all observers and guests for their collaboration, help and support. She expressed a very special thank to G. Camoin and M. Joanides for the pleasant and fruitful cooperation during her great time as ESSAC Science coordinator at the ESSAC Office at the CEREGE in Aix-en-Provence, France. As of August 09 B. Wolff-Boenisch will become the new executive manager of the ERICON AURORA BOREALIS Project.

2. IODP News

2.3 Science Steering Evaluation Panel – SSEP

G. Camoin reported about the 11th Meeting of the Science Steering and Evaluation Panel (SSEP), on November 10th to 13th, 08 at the Hotel Whitcomb, in San Francisco, CA, U.S.A.

A total of 34 proposals, thereof 18 ECORD had been reviewed including 11 proposals currently residing with SPC or OTF to provide a consistent star grouping where possible and 4 new externally reviewed proposals. The 5 tables down-below show the 3 different breakout groups solid earth, paleoceanography and fault fluids, surface geology, microbiology) as well as the dispositions taken by the SSEP at the San Francisco meeting.

BREAKOUT Group 1 (Solid Earth, chair Barbara John)

| Number | Short Title | Lead Proponent |
|-----------|--------------------------------------|----------------|
| 548-Full3 | Chicxulub K-T Impact Crater | Morgan |
| 681-Full2 | Lesser Antilles Volcanic Landslides | Le Friant |
| 696-Full2 | Izu-Bonin-Mariana Deep Forearc Crust | Pearce |
| 733-Pre | Red Sea Salt Glaciers | Mitchell |
| 735-Pre | South China Sea Tectonic Evolution | Li |
| 738-APL | Nankai Trough Submarine Landslides | Strasser |
| 740-Full | Galicia Margin Rift History | Reston |
| 741-Pre | Global Salt Body History | Hovland |
| 695-Full2 | Izu-Bonin-Mariana Pre-Arc Crust | Arculus |
| 697-Full3 | Izu-Bonin-Mariana Reararc Crust | Tamura |
| 551-Full | Hess Deep Plutonic Crust | Gillis |
| 505-Full5 | Mariana Convergent Margin | Fryer |

BREAKOUT Group 2 (Paleoceanography/Palaeoclimatology, chair Ishiwatari)

| Number | Short Title | Lead Proponent |
|-----------|-------------------------------------|----------------|
| 615-Full2 | NW Pacific Coral Reefs | Matsuda |
| 625-Full | Pleistocene Pacific Southern Ocean | Gersonde |
| 680-Full | Bering Strait Climate Change | Fowell |
| 702-Full | Southern African Climates | Zahn |
| 732-Full2 | Antarctic Peninsula Sediment Drifts | Channell |
| 736-APL | Gulf of Mexico Paleoclimatology | Flower |
| 737-Pre | North Sea Cenozoic Climate Change | Donders |
| 705-Full2 | Santa Barbara Basin Climate Change | Kennett |
| 716-Full2 | Hawaiian Drowned Reefs | Webster |
| 552-Full3 | Bengal Fan | France-Lanord |
| 581-Full2 | Late Pleistocene Coralgall Banks | Droxler |
| 595-Full3 | Indus Fan and Murray Ridge | Clift |

BREAKOUT Group 3 (Faults/Fluids, subsurface Geology, microbial)

| Number | Short Title | Lead Proponent |
|-----------|----------------------------------|----------------|
| 569-Full3 | CO ₂ Sequestration | Goldberg |
| 673-Full | Morocco Margin Mud Mound | Van Rooij |
| 734-APL | Cascadia Accretionary Prism CORK | Davis |
| 739-APL | Bering Sea Subseafloor Life | D'Hondt |
| 547-Full4 | Oceanic Subsurface Biosphere | Fisk |
| 553-Full2 | Cascadia Margin Hydrates | Riedel |
| 555-Full3 | Cretan Margin | Kopf |
| 557-Full2 | Storegga Slide Gas Hydrates | Andreassen |
| 584-Full2 | TAG II Hydrothermal | Rona |
| 589-Full3 | Gulf of Mexico Overpressures | Flemings |

| Proposals with external review | | | | |
|--------------------------------|------------------------------------|---------------|---|--|
| 695-Full2 | Izu-Bonin-Mariana Pre-Arc Crust | Arculus | 3 | SPC, 5 stars |
| 697-Full3 | Izu-Bonin-Mariana Reararc Crust | Tamura | 3 | SPC, 3 stars |
| 705-Full2 | Santa Barbara Basin Climate Change | Kennett | 2 | SPC, 4 stars |
| 716-Full2 | Hawaiian Drowned Reefs | Webster | 2 | SPC, 4 stars |
| Proposals at SPC | | | | |
| 547-Full4 | Oceanic Subsurface Biosphere | Fisk | 1 | No grouping |
| 551-Full | Hess Deep Plutonic Crust | Gillis | 3 | No grouping, recommend proposal be updated |
| 552-Full3 | Bengal Fan | France-Lanord | 2 | Grouping: 4stars |
| 553-Full2 | Cascadia Margin Hydrates | Riedel | 1 | Grouping: 4 stars |
| 555-Full3 | Cretan Margin | Kopf | 1 | Grouping: 4 stars |
| 557-Full2 | Storegga Slide Gas Hydrates | Andreassen | 1 | No grouping |
| 584-Full2 | TAG II Hydrothermal | Rona | 1 | No grouping, recommend proposal be updated |
| 589-Full3 | Gulf of Mexico Overpressures | Flemings | 1 | Grouping: 3 stars |
| Proposals at OTF | | | | |
| 505-Full5 | Mariana Convergent Margin | Fryer | 1 | Grouping: 4 stars with CORK program |
| 581-Full2 | Late Pleistocene Coralgall Banks | Droxler | 2 | Grouping: 3 stars |
| 595-Full3 | Indus Fan and Murray Ridge | Clift | 2 | Grouping: 4 stars |

| Number | Short Title | Lead Proponent | ISP Theme | SSEP disposition |
|-----------|--------------------------------------|----------------|-----------|------------------|
| 548-Full3 | Chicxulub K-T Impact Crater | Morgan | 2+1 | external review |
| 569-Full3 | CO2 Sequestration | Goldberg | 1+2 | deactivate → |
| 615-Full2 | NW Pacific Coral Reefs | Matsuda | 2 | revise full |
| 625-Full | Pleistocene Pacific Southern Ocean | Gersonde | 2 | revise full |
| 673-Full | Morocco Margin Mud Mound | Van Rooij | 1 | revise full |
| 680-Full | Bering Strait Climate Change | Fowell | 2 | revise full |
| 681-Full2 | Lesser Antilles Volcanic Landslides | Le Friant | 3 | external review |
| 696-Full2 | Izu-Bonin-Mariana Deep Forearc Crust | Pearce | 3 | revise full |
| 702-Full | Southern African Climates | Zahn | 2 | revise full |
| 732-Full2 | Antarctic Peninsula Sediment Drifts | Channell | 2 | external review |
| 733-Pre | Red Sea Salt Glaciers | Mitchell | 2+1 | deactivate → |

2.4 Science Planning Committee SPC and Operation Task Force OTF

G. Camoin summarised the discussions of the 13th IODP Science Planning Committee meeting at the University of Miami in Miami, FL, U.S.A. which was held from March 16th to 19th, 09. The operational issues for the FY 09-10 and beyond dealt with the JOIDES Resolution, the Chikyu and the MSPs and engineering development. The scientific issues included discussions on the expedition scheduling for APLs and engineering development, APLs in general as well as proposals remaining at OTF and proposals to be reviewed and ranked.

Operational issues FY 09-10

In FY10 no MSP operations are planned. After FY10, ECORD desires to implement one MSP for each fiscal year.

Regarding FY10 the JOIDES Resolution schedule is uncertain and dependent on the location of non-IODP contract work

Regarding the Chikyu, the scheduling beyond FY09 is seen as problematic, particularly with regard to the ability to achieve the primary objective (deep fault) due to uncertainties of the Kuroshio Current. In FY10 there will be no Chikyu operations (non IODP work). Operations will start again in FY11.

There is a consensus that NanTroSEIZE is the current prime riser project. The deep riser drilling at site NT3-01 scheduled to begin in September 10 is the first priority of operation in FY 11 and consistent with the consensus view of the NanTroSEIZE PMT. If the Kuroshio current may be still unfavourable for drilling at this site the need for a contingency plan for riser drilling is evident. Possible contingency options depend on factors such as science, program balance, feasibility, and the ability to complete drilling by 2013 (to avoid having two unfinished riser projects at the end of the first phase of the program).

There are currently 4 riser proposals residing with the SPC or OTF. The proposals are:

- 537B-Full4 Costa Rica Seismogenesis Project Phase B (CRISP-B) – has a high science priority, but large budgetary impacts, because of difficulties with logistics.
- 595-Full3 Indus Fan - not practical, because it is very difficult to implement and the Japan Ministry of Foreign Affairs does not favour the case that Chikyu would operating in Pakistan's EEZ.
- 618-Full3 East Asia Margin – relevant science priority, but it seems that proposed sites are located in disputed waters where national boundaries are not clear and safety is a concern
- 698-Full2 IBM Arc Middle Crust – this project would be a viable as a contingency operation, but the proposal needs a current monitoring survey.

The final decision regarding the contingency options will be done at the next SPC meeting in August.

G. Camoin explained that the 698-Full2 IBM proposal had not been highly ranked at SPC, but that this proposal was apparently the Japanese favourite contingency project.

L. Lourens asked if it could be conceivable to bring the Chikyu into the Mediterranean Sea, as there would be a deep biosphere project, which intends to operate in this region. G. Camoin explained that in the pre-INVEST meeting it had been discussed that the Japanese ship should be operate outside Japanese territories and that this issue had to be set in the new science plan. He stated, that this was a key point for the future of the programme.

Regarding the Tier 1 proposals in the Atlantic, there was a proposal which would be the type of proposals, that the INVEST steering committee could consider to be drilled in the next phase, the 677 – MAR proposal. This project would combine IODP funds and private funds. The proponents got over 4 Mio \$ from the Moore Foundation to work on the idea.

Scientific issues

Expedition scheduling for APLs

As engineering development projects have to be tested at sea, the SPC approved its support for trials on sea. There are two types of requests for test time:

- (1) Engineering development projects funded by IODP-MI through SOC funds, which include sea time in the development and testing plan; and
- (2) Tools or equipment relevant to the IODP ISP or a particular scheduled expedition but funded outside IODP-MI SOC purview (i.e., third party tools, IO developments).

Typically a couple of days are required for each project. Every expedition has currently 56 days. A change to 53 days would leave 3 days for flexibility (e.g., for engineering development testing or implementation of an APL).

APLs forwarded to OTF

There have been 3 APLs forwarded to OTF:

- 739-APL about microbial respiration, biomass and community composition in subseafloor sediment of the very high-productivity Bering Sea. The proponents are Steve D’Hondt et al. The prime objective was to determine how very high seasurface productivity affects subseafloor community structure. There is a link to the Bering Sea Expedition.
- 734-APL concerning the revitalizing of Hole 889C for pressure/strain monitoring in the Cascadia accretionary prism. The proponents are Earl Davis et al. The prime objective is to complete an even simpler and more economical installation for pressure monitoring in a pre-existing cased borehole, Hole 889C in the Cascadia accretionary prism. There is a link to proposal 553Full-2 Cascadia Margin.
- 738-APL about Nankai Trough Submarine Landslide history. The proponents are Michael Strasser et al., Germany and the prime objective is to add one Site (NTS-1A) to the NanTroSEIZE study area to constrain timing, causes and consequences of submarine landslides in one of the best studied accretionary complexes worldwide. Link with the NanTroSEIZE program.

There are currently 23 proposals (5 from ECORD proponents) remaining at OTF, including:

Proposals scheduled or recommended for implementation in FY 09 and in FY 10.

| | Proposal | Short Title |
|----|-----------------|--|
| 1 | 477-Full4 | Okhotsk/Bering Plio-Pleistocene (Bering) |
| 2 | 482-Full3 | Wilkes Land Margin |
| 3 | 519-Full2 | South Pacific Sea Level (Great Barrier Reef) |
| 4 | 545-Full3 | Juan de Fuca Flank Hydrogeology |
| 5 | 564-Full2 | New Jersey Shallow Shelf |
| 6 | 600-Full | Canterbury Basin |
| 7 | 603A-Full2 | NanTroSEIZE Phase 1: Reference Sites |
| 8 | 603B-Full2 | NanTroSEIZE Phase 2: Mega-splay Faults |
| 9 | 603C-Full | NanTroSEIZE Phase 3: Plate Interface |
| 10 | 603D-Full2 | NanTroSEIZE Observatories |
| 11 | 626-Full2 | Pacific Equatorial Age Transect |
| 12 | 638-APL2 | Adelie Drift |
| 13 | 654-Full2 | Shatsky Rise Origin |
| 14 | 739-APL | Bering Sea Subseafloor Life |

ECORD proposals: Wilkes Land Margin, Great Barrier Reef and Pacific Equatorial Age Transect.

Proposals available for future consideration by the Operations Task Force (OTF)

| | Proposal | Short Title |
|----|-----------------|---|
| 15 | 477-Full4 | Okhotsk/Bering Plio-Pleistocene (Okhotsk) |
| 16 | 505-Full5 | Mariana Convergent Margin |
| 17 | 537B-Full4 | Costa Rica Seismogenesis Phase B |
| 18 | 595-Full3 | Indus Fan and Murray Ridge |
| 19 | 601-Full3 | Okinawa Trough Deep Biosphere |
| 20 | 605-Full2 | Asian Monsoon |
| 21 | 677-Full | Mid-Atlantic Ridge Microbiology |
| 22 | 693-APL | S. Chamorro Seamount CORK |
| 23 | 724-Full | Gulf of Aden Faunal Evolution |

ECORD proposals: Costa Rica and Indus fan.

Proposal review and ranking

Out of 28 proposals reviewed at that meeting, 9 are from ECORD scientists (marked in red).

Deep Biosphere and Subseafloor Ocean (7)

- 553-Full2 Cascadia Margin Hydrates
- 555-Full3 Cretan Margin
- 584-Full2 TAG II Hydrothermal
- 589-Full3 Gulf of Mexico Overpressure
- 633-Full2 Costa Rica Mud Mounds
- 637-Full2 New England Hydrogeology
- 662-Full3 South Pacific Gyre Microbiology

Environmental Change, Processes, and Effects (10)

- 549-Full6 Northern Arabian Sea Monsoon
- 552-Full3 Bengal Fan
- 556-Full4 Malvinas Confluence
- 567-Full4 South Pacific Paleogene
- 581-Full2 Late Pleistocene Coralgal Banks
- 618-Full3 East Asia Margin
- 661-Full2 Newfoundland Sediment Drifts
- 686-Full Southern Alaska Margin I
- 705-Full2 Santa Barbara Basin Climate Change
- 716-Full2 Hawaiian Drowned Reefs

Solid Earth Cycles and Geodynamics (11)

- 522-Full5 Superfast Spreading Crust
- 535-Full6 Atlantis Bank Deep
- 537A-Full5 Costa Rica Seismogenesis Phase A
- 612-Full3 Geodynamo
- 636-Full3 Louisville Seamounts

659-Full Newfoundland Rifted Margin
669-Full3 Walvis Ridge Hotspot
695-Full2 Izu-Bonin-Mariana Pre-Arc Crust
697-Full3 Izu-Bonin-Mariana Rear-Arc Crust
698-Full2 Izu-Bonin-Mariana Arc Middle Crust
703-Full Costa Rica SEISCork

The following proposals have been forwarded to OTF. ECORD proposals are marked in red:

- 1 - 636-Full3 Louisville Seamounts
- 2 - 662-Full3 South Pacific Gyre Microbiology
- 3 - 705-Full2 Santa Barbara Basin Climate Change
- 4 - 637-Full2 New England Shelf Hydrogeology
- 5 - 552-Full3 Bengal Fan
- 6 - 716-Full2 Hawaiian Drowned Reefs
- 7 - 549-Full6 Northern Arabian Sea Monsoon
- 8 - 522-Full5 Superfast Spreading Crust
- 9 - 537A-Full5 Costa Rica Seismogenesis Project Phase A
- 10 - 618-Full3 East Asia Margin

The other proposals have not been forwarded to OTF. Out of 3 proposals, which have been deactivated, 1 is from an ECORD proponent: 535-Full6 Atlantis Bank Deep, 556-Full4 Malvinas Confluence and 612-Full3 Geodynamo.

The list shows proposals, which are currently in the "holding bin" (*), as they are lacking or having insufficient site survey data (SPC consensus 0903-13).

- 3 - 705-Full2 Santa Barbara Basin Climate Change (*)
- 4 - 637-Full2 New England Shelf Hydrogeology (*)
- 5 - 552-Full3 Bengal Fan (*)
- 6 - 716-Full2 Hawaiian Drowned Reefs (*)
- 7 - 549-Full6 Northern Arabian Sea Monsoon (*)
- 10 - 618-Full3 East Asia Margin (*)

Tier 1, Tier 2 proposals

Tier 1 proposals: (1) highest priority proposals for an ocean basin; (2) important to complete by 2013; (3) reside at OTF for two or three years; (4) ready for drilling.

Tier 2 proposals: (1) high priority proposals for an ocean basin; (2) re-evaluated at each ranking meeting; (3) ready for drilling.

- 1 - 636-Full3 Louisville Seamounts – Tier 1 Pacific
- 2 - 662-Full3 South Pacific Gyre Microbiology – Tier 1 Pacific
- 3 - 705-Full2 Santa Barbara Basin Climate Change - Tier 2 Pacific
- 4 - 637-Full2 New England Shelf Hydrogeology - NA
- 5 - 552-Full3 Bengal Fan – Tier 1 Indian Ocean
- 6 - 716-Full2 Hawaiian Drowned Reefs - Tier 2 Pacific
- 7 - 549-Full6 Northern Arabian Sea Monsoon - Tier 2 Indian Ocean
- 8 - 522-Full5 Superfast Spreading Crust - Tier 2 Pacific
- 9 - 537A-Full5 Costa Rica Seismogenesis Project Phase A - Tier 2 Pacific

10 -618-Full3 East Asia Margin- Tier 2 Pacific

Summary of the Tier 1 proposals divided in oceanic basins:

TIER 1 proposals Pacific:

505-Full5 Mariana Convergent Margin
537B-Full4 Costa Rica Seismogenesis Project Phase B
545-Full3 Juan de Fuca Flank Hydrogeology
601-Full3 Okinawa Trough Deep Biosphere
636-Full3 Louisville Seamounts
662-Full3 South Pacific Gyre Microbiology

Tier 1 proposals Atlantic:

644-Full2 Mediterranean Outflow
677-Full Mid-Atlantic Ridge Microbiology

Tier 1 proposals Indian Ocean:

552-Full3 Bengal Fan
724-Full Gulf of Aden Faunal Evolution

R. Stein asked about the length of the expeditions and that there has been the idea to shorten single expeditions to implement other expeditions in addition. G. Camoin explained that SPC wanted to work on the flexibility of the length of the expeditions before the end of the program to drill as many proposals as possible. In the future SPC would ask the proponents to revise their proposals and possibly shorten the drilling plans without jeopardizing the scientific aims of the expeditions. R. Stein continued to ask about the re-evaluation process regarding proposals already sitting at OTF. G. Camoin explained, that the current SPC chair J. Mori suggested to reevaluate those proposals to compare the grouping in a consistent way. Because of the stop of the JR a lot of proposals would sit at OTF and in parallel an important change in the panels took place. In order to compare pears with pears the SPC chair preferred this approach. G. Camoin remembered the ESSAC delegates that ECORD had been very successful in proposal submission J. McKenzie asked about guidance regarding ECORD proposal, whether the success of ECORD scientists would need some strategies. G. Camoin argued that this would depend on the next format of the new program. Japan and the US wanted to have another program and that the SPC would be very aware of that issue. SASEC had written a guidance document how to proceed, but the community did not accept the approach as it was top down and not a bottom-up triggered. The main guidance would be still the Tier1 and Tier2 system and the related geographical distribution. The SPC would work on different scenarios, how to implement expeditions, as time was getting short. SPC would try to drill as many proposals as possible before the end of the program. E. Erba explained that she had been the proponent of a deactivated proposal, which had not 3D site survey. Because of the current renewal process, she would not consider to rewrite it, rather she would prefer to wait and to be ready for the next phase of the program. G. Camoin explained, that this had been discussed at the EGU workshop. The idea was to suggest existing proposals with good science to resubmit to the next program or that special topics would be integrated in the new science plan. L. Lourens thought that Tier2 proposals would not have a chance to get drilled. G. Camoin explained that depending on the geographical situation Tier2 proposals could have a very good chance to get drilled. L. Lourens asked, if the JR could also go into the Indian Ocean and G. Camoin responded to him that SPC would like to see the JR in the

Indian Ocean. If there would be industry work in the Indian Ocean, the JR has good chances to go to this region.

2.5 Program Member Offices PMO

G. Camoin reported about the 5th PMO meeting at the Courtyard by Marriott Hotel in Miami, March 20th, 09. The main topics discussed among the PMO members were the "guest scientists program", SAS issues, expedition staffing issues and the preparation of the INVEST conference (see item 2.6 Invest Conference).

Guest scientists program

The purpose of the program is to find a mechanism to expose non-member countries to IODP science, to attract new membership into IODP, and to allow participation of primary IODP proposal proponents from non-member countries.

The overarching principles are, that the staffing is subjected to availabilities of berths as determined by the respective IOs and the member country/consortia staffing quotas. The Guest Scientist would participate as a full member of the science party and take on the resulting obligations. The scientist would have the same sample/data privileges and publishing obligations as member country/consortia scientific staff participants. IODP-MI would guarantee the expenses associated with normal expedition participation. The IO would be the final authority on acceptance of Guest Scientist.

The selection procedure is, that the staffing procedures for Guest Scientists would generally follow those associated with normal IODP staffing guidelines, with IODP-MI acting in the role of PMO for Guest Scientists and that the IO and/or Co-chief Scientists would discuss Guest Scientist applications during expedition participant selection process. Both IO and expedition Co-chiefs would agree that the Guest Scientist is appropriate for the expedition and there is no scientific conflict with member country/consortia scientific staff participants.

G. Camoin told the ESSAC delegates, that he informed the PMOs that this approach should be only a one-shot action and not a routine programme. Otherwise the programme would jeopardize the concept of ECORD, viz. small countries contribute financially to sail. If there would be too many opportunities to sail via the excess berths, than small countries would rather go for this opportunity than to pay in. In the past guest scientists have been sailing, such in the case of Tahiti where a Korean scientist has been an "observer". The JR has in general 3 or 4 berths, which could be given to guest scientists from non-IODP countries or are used to implement APLs.

SAS panel expertise balance status: current/needed

There is no request for EPSP and SSP. For STP expertises in microbiology, igneous petrology, organic and inorganic geochemistry and paleomagnetism are needed. For the EDP panel a drilling systems engineer (with experience with seabed frames/templates, heave compensation, and drill string stabilization) and a geotechnical engineer (with off-shore experience) are needed. Currently SSEP needs deep-biosphere seafloor ocean, solid earth experts.

Staffing criteria used by each PMO

All PMOs work with an advisory committee and (if applicable) a co-chief on the expedition. Most PMOs also take discipline, gender, and experience into consideration to encourage new participation in the program. For ESSAC and ANZIC, country balances are also considered.

Increasing post-doc- and PhD-level participation in expeditions

The PMOs would like to see more students and post docs sail on expeditions. Due to different funding situations in each country, however, it is difficult to consistently implement this principle. Students also often rank low in the review process because they have weak CVs. It is important for reviewers to carefully consider an applicant's letter of motivation, research plan, etc.

Program visibility: increasing applications to sail

The PMOs are receiving many applications for some expeditions, but few applications for others. Many of the PMOs reported problems receiving enough applications.

Dealing with more flexible expedition design including APL

The IOs explained that if they start advertising for APLs, then the associated staffing will be included in the normal staffing process. Scientists who participate (either shipboard or shorebased) in this APL will be part of the expedition's science party. The PMOs requested that a mechanism should be established for notifying the PMOs of who is selected as a shorebased scientist. The PMOs also need to provide clearer instructions to their community on how to become a shorebased scientist.

U. Wortmann asked, if the expertises for the APL would be very different from those of the expedition. G. Camoin agreed and mentioned the case of the Bering Sea Expedition, where the APL involves deep biosphere specialists. Their expertises are needed for the APL, but were not foreseen in the Bering Sea call. However this would not be a PMO, but an IO issues as it is also based on logistical issues. The issue is that the PMOs, including ESSAC would like to know, what IODP would do, if the ships would reach berth maxima due to new member countries. This of course would be also an issue for the renewal of the programme.

U. Wortmann thought that not the berth, but the qualification of good scientists would be the limiting factor. G. Camoin explained that this would be only the case for very few expeditions not so popular than others. Bering Sea got over 60 applications, only for ECORD. On the other hand the NanTroSEIZE expeditions are very hard to staff.

L. Lourens asked about onshore scientists and how many could be included. G. Camoin explained to him that, as far as there would be no scientific conflict with members of the science party, there would not be a limitation. They could receive samples, but would not be invited to the party. L. Lourens explained that he had been an onshore scientist, who had been invited to a science party. C. Mével explained the definition of an onshore scientist, would be someone who does something that not a member of the regular science party can or will do. R. Stein wanted to know who is going to decide that someone is going to be an onshore scientist. G. Camoin explained that the selection (or rejection) would be done by the co-chiefs who review all sample requests. They would have to avoid the scientific conflict of interest between onshore and science party scientists. R. Stein continued to ask if there would be a specific call for sample request opportunities. G. Camoin said that there were calls, but so far none of them were specific to shore-based scientists. An onshore scientist would have access to samples before the sample moratorium of 1 year is over. U. Wortmann suggested that there should be a clear instruction available in which it would explained what do to, in case a scientist is interested to obtain samples. G. Camoin said that this was exactly the point that the PMOs requested at the last meeting; that the procedure should be announced and transparent. At the moment the system would only be practical for insiders.

Future format of science party with increasing IODP membership/contributions

IODP-MI reviewed the berths allocated for new members on each platform. Additional membership means there will eventually be less berths. The PMOs would like to know what happens when IODP reaches the limit of available berth spaces.

2.6 INVEST Conference

G. Camoin described the program renewal activities and timelines. The INVEST (IODP New Ventures in Exploring Scientific Target) Conference will take place on September 23rd to 25th, 09 in Bremen, Germany. For more information check under <http://www.iodp.org> and <http://www.marum.de/iodp-invest.html>. The registration dates are April 4th to August 3rd, 09. The registration fees are 50 € for regular participants and 20 € for students.

The upper limit of attendance is 450-500 participants (based on the conference room size). Early registration is encouraged, because there will be the first come, first served mechanism applied. There are no national quotas for the meeting, but IODP-MI is expecting 100 participants from Japan, 100 from the U.S., 100 from Europe, and 100-150 total from other member nations. The Timeline for the science planning part of the program renewal process is as described down-below:

- INVEST renewal conference Sept. 2009
- Proceedings of INVEST published early 2010
- Transforming INVEST into the science and implementation plan
- New science plan - 1st draft - late 2010
- Internal and external review of science plan
- New science plan fully completed 2011
- Approval by national science boards - US/JP/EU - 2011/2012
- Science/program plan, funding agencies approval 2012

The scientific steering committee consists of 10 persons:

- Wolfgang Bach (Chair) EU - Ocean Crust, Hydrothermal/observatory, Geomicrobiology
- Christina Ravelo (Chair) US - Climate, Chemical Oceanography
- Jan Behrmann EU - Tectonics, Accretionary Prisms, Seismogenesis -
- Gilbert Camoin EU - Shallow-Water Carbonates, Sea-Level Changes -
- Robert Duncan US - LIPs, Magnetics, Crustal Drilling -
- Katrina Edwards US - Geomicrobiology, Observatory -
- Sean Gulick US - Convergent Margins, Tectonics/Climate, Impacts/Geohazards -
- Fumio Inagaki JP - Geomicrobiology, Molecular Ecology, Microbiology, Biogeochemistry -
- Heiko Palike EU - Climate, Arctic, Time scales -
- Ryuji Tada JP - Climate, Monsoon/Land-Ocean linkages -

The current programme is structured:

The opening address will be held by Vincent Courtillot - Ocean Drilling: A 21st Century endeavour to Understand the Earth System

The keynote lectures are:

- Andrew Fisher - Achievements and Challenges in Subseafloor Hydrogeology during Scientific Ocean Drilling
- David Hodell - Paleoclimate Opportunities to Constrain Abrupt and Rapid Climate Change
- Tori Hoehler - The View from Space: What Ocean Drilling can Tell us About Habitability, Life's Limits, and the Possibilities for Life Beyond Earth

- Bo Barker Jörgensen - Microbial Life in the Deep Seabed - the Starving Majority
- Jeff Kiehl - Paleoceanography: Providing Critical Knowledge to Improve Climate Model Predictions
- Naohiko Ohkouchi - Future Directions in Probing Global Biogeochemical Cycles
- Terry Plank - Down and Back Again: Cycles and Growth at Convergent Margins
- Doug Toomey - Outstanding Questions of Crust-Mantle Interaction Below the Ocean Basins: What can Deep Earth Sampling Tell us ?
- Jim Zachos - The Potential and Promise of Studies of Past Warm Worlds

The agenda is as follows:

The INVEST Breakout Sessions and the single days are organised as follows:

DAY 1-2: Co-evolution of life and planet

1. Extent and habitability of seafloor life and the biosphere
2. Biogeochemical function, activity and ecological roles of seafloor life
3. Limits and evolution of life on Earth and beyond
4. Extreme environmental events and punctuated evolution
5. Paleoecosystems: biodiversity and biogeography
6. Co-evolution of ocean chemistry and the surface/subsurface biospheres

DAY 1-2: Earth's interior, crust and surface interactions

1. Behaviour of the Geodynamo
2. Mantle flow and interactions with lithosphere
3. Variability in ocean crust composition and structure
4. Plate aging: ridge to trench
5. Subduction zones & volcanic arcs
6. Initiation of plate boundaries

DAY 1-2: Climate change – records of the past, lessons for the future

1. Extreme and/or rapid climatic events
2. High latitude regions and stability of ice sheets
3. Rates and amplitudes of sea level change
4. Ocean-atmosphere circulation dynamics
5. From greenhouse to icehouse worlds
6. Sensitivity of the climate system

DAY 2-3: Earth System dynamics, reservoirs and fluxes

1. Ocean-crust-mantle cycles
2. Controls and feedbacks on hydrocarbon storage and emissions
3. Carbon cycle and redox budget
4. Fluid flow, heat flow and hydrothermal systems
5. Continent-ocean fluxes, weathering processes and linkages
6. (Bio)geochemical element cycles
7. Tectonic-climate interactions

DAY 2-3: Earth-Human-Earth interactions

1. Geohazards: earthquakes

2. Geohazards: submarine landslides & mass movements
3. Geohazards: volcanic eruptions & bolide impacts
4. Ocean acidification: past and future
5. Seafloor resources
6. CO₂ sequestration
7. Improving sea level change predictions
8. Climate, human evolution and civilization
9. Ultrahigh resolution records to improve climate change prediction

DAY 3: Science Implementation

Technology

1. Observatories
2. Seafloor laboratories and experiments
3. Platform, drilling and logging tools: needs and opportunities
4. Site characterization and integration with the borehole
5. Analytical needs and development

Program architecture

6. Balancing long-term projects and single expeditions
7. Program management options to optimize integration
8. Develop broad vision for outreach, branding and education

Beside the European workshop "Beyond 2013 - the future of European scientific drilling" organised by the ESSAC Office, the Japanese and the US scientists were also involved in the pre-INVEST preparation phase. J-DESC activities related to INVEST and the renewal of the program included the organisation of 5 dedicated workshops with specific research topics:

1. Geohazard Workshop, 1st to 3rd December, 08 at the Fukuda Geological Institute in Tokyo (35-40 participants).
2. Earth's Interior Workshop, 5th December, 08 at the University of Tokyo, Ocean Research Institute (40-50 participants).
3. Paleoenvironment Workshop - 4th to 6th December, 08 at the Hotel Laforet Nasu in Tochigi (40 participants).
4. Deep Biosphere and Sub-seafloor Aquifer Workshop - 12th to 13th December 08 at the University of Tokyo, Kashiwa Campus (30 participants).
5. Technology development Workshop - 6th -7th December 08 at the JAMSTEC Tokyo office (20 participants).

The USSSP activities related to INVEST and the renewal of the program included a six-week on-line discussion board "Ocean Drilling CHART" from February 2nd to March 13th, 09, to gather input from the U.S. science community regarding future research directions for scientific ocean drilling. The CHART Steering Committee has summarized more than 500 comments posted on the forum. The final report has been posted mid-May under the following link: <http://www.oceanleadership.org/chart>. The ECORD and the Japanese report will be published under the INVEST homepage: <http://www.marum.de/ioldp-invest.html>.

C. Mével wondered about the INVEST programme, that also non-scientific issues such as *programme architecture etc.* were covered. G. Camoin told her, that the steering

committee was very conscious that those issues were important to incorporate and that the scientists should also have a say in this issue.

L. Lourens was wondering, if the programme would become more scientific drilling than ocean drilling, as the proposed scientific topics were quite broader and were also related to continental topics such topic like "climate, human evolution and civilization". But on the other hand that the ice core communities were left outside. R. James argued that coring would not be drilling. I. Snowball expressed his view that the funding agencies would very much appreciate, if societal aspects would be included in the new science plan.

2. IODP News

2.1 Lead Agencies and Implementing Organizations

C. Mével started her talk with the announcement of great news that the three IODP platforms are operating simultaneously. As of April 30th, 09 the Kayd sailed from Atlantic City to start with the New Jersey Shallow Shelf Expedition. As of May 9th, 09 the JOIDES Resolution sailed from Honolulu and began to implement the expedition 321 PEAT2. Last, but not least as of May 12th, 09 the Chikyu sailed from Shingu port to start with the riser drilling expedition 319.

New members

IODP has 2 new members: ANZIC (Australia – New Zealand IODP Consortium) signed after a long period at the level of membership. India signed at the level of 1 M \$. Furthermore Korea is planning to increase its contribution to 1 M \$ and discussions for an Asian consortium are ongoing. In total IODP has currently 24 member countries.

IODP-MI has a new president. Kyoshi Suyehiro started as of May 16th, 09. He will attend the ECORD Council meeting next June and explain his vision of IODP-MI. The two offices should merge into a single office in Tokyo. The Board of Governors has also a new Chair Brian Taylor.

The current ECORD Governors are Daniel Prieur (IUEM, France), John Ludden (BGS, UK) and Hans Thierstein (ETH, Switzerland). Daniel Prieur is rotating off in June 09 and will be replaced by Gerold Wefer (MARUM, Germany).

NSF

NSF had a budget increase, the « stimulus package ». NSF is negotiating with Korea to implement ~4 months of gas hydrate drilling outside of IODP in 2010

MEXT

There is no new information from MEXT.

IWG+ Membership

At the IODP Council in Lisbon (January 09), it was decided to create an "International Working Group +" to discuss the structure and organization. The idea is to have one representative from each of the present participating IODP countries/organizations. In addition to that a representative of each country/organization should indicate its interest in participating in the new drilling program. Besides members, the IWG+ will include observers from the IODP Science Advisory Structure (SAS), IOs, IODP-MI, and other partners as appropriate. To ensure the crucial liaison between science planning groups such as INVEST and IWG+, some members of the SAS, including the chair of the SASEC, and IODP-MI personnel dealing with Scientific Planning will be invited as observers. The first meeting took place June, 18th to 19th, 09 in Washington DC. ECORD will be represented by a subset of the ECORD Council members.

Regarding the idea to have one representative from each of the present participating IODP countries/organizations, C. Mével informed the ESSAC delegates that ECORD would not send 17 representatives, but rather to send a small group. Persons who are currently in this core group are C. Franklin (UK), M. Perrin (F), G. Lueniger (G), J. R. Sanchez Quintana, possibly F. Barriga and A. De Vernal (Canada), who expressed interest to participate in this group.

The "New Drilling Program"

To show that post 2013 cannot be the continuation of IODP ("business as usual") the IODP council decided to call the next phase the "New Drilling Program". This means that everything is open, in terms of science goals and structural organization.

USIO

PEAT1 started in March 09. The Portcall in Honolulu was made in early May 09. The USIO, NSF and the University of Hawaii organized a major outreach event.

For the FY 09 following expeditions are planned: PEAT 2/Juan de Fuca (May-June 09), Bering Sea (July-August 09) and Shatsky Rise (September-October 09). For the FY 10 Canterbury Basin (November-December 09), Wilkes Land (January-February 10) and probably 4 months of Gaz Hydrates in Korea. It is unclear what will happen with the remaining months. For FY 11 it is planned to have 8 months drilling operations.

There is a proposal to create a consortium with industry to use the JR for about 4 months per year. The deadline is June 09.

CDEX

The Chikyu sailed for two expeditions in May and September/October, 09: The NanTroSEIZE Expedition stage 2 Riser/Riserless Observatory 1 (319) and the NanTroSEIZE expedition stage 2 Subduction Input (322). The 5 months of drilling are supposed to be the first riser drilling within IODP. This will be a crucial test, not only for the sciences community but also for industry, if the ship is able to drill in the riser mode, as CDEX is looking for commercial work in FY 10. There is possibly no IODP operation in FY 10. The aim is to implement 6 months of drilling in FY 11.

C. Mével reported about the idea to negotiate with the lead agencies to give less SOCS to NSF and that ESO keep more money to implement the MSPs. The advantage would be that currently new members join IODP and fresh money would come in. ECORD council told the lead agencies that ECORD would like to implement an MSP per year from FY 11 till the end of the programme, but at the moment there is no sufficient money for doing so.

2.2 SAS Executive Committee - SASEC

SASEC met on 20th to 21st January, 09 in Lisbon. The meeting was organised and hosted by the Portuguese ESSAC delegate F. Abrantes.

The current ECORD representatives are Gerold Wefer (Germany) and Nick Arndt (France).

Approval of the FY09 annual program plan (APP)

SASEC is responsible to approve the annual program plan (APP). However, there had been still a lot of uncertainties in January (although the FY already started in October 08). The Budget Committee received the information just before the meeting and did not have time to review the plan.

SASEC Motion 0810-01: SASEC recognizes that the current draft FY 09 APP describes a USIO expedition schedule that will likely change significantly as announced in September. SASEC approves the overall budgeting levels in the draft FY09 APP, with the understanding

that (1) consistent budgeting levels will be applied to the revised FY09 expedition schedule now being developed by OTF and SPC and (2) Data Reports and Synthesis Papers will remain an integrated part of the IODP Proceedings.

Funding and Funding Agencies

To help secure the funding at the Funding Agency level SASEC decided on the SASEC Action Item 0901-05 and SASEC Consensus 0901-06.

SASEC Action Item 0901-05: As soon as possible, the SPC chair, SASEC vice-chair and IODP-MI VP Science Planning should provide the IODP funding agencies brief summaries suitable for non-specialists of scientific objectives, expected results, and societal relevance of the high priority riser and MSP proposals and Tier 1 JOIDES Resolution proposals that currently reside with the Operations Task Force (OTF).

These will be used by the "IODP funders" to promote IODP in their organizations.

SASEC Consensus 0901-06: For the post-renewal phase of IODP, SASEC requests that the IODP funding agencies consider funding schemes that allow more flexibility in platform use to maximize the scientific return of the program.

Long term thematic review

The report for the long term thematic review Oceanic crustal formation and structure should have been ready by March 09. The Meeting for the appointed committee for the topic on Deep biosphere and subseafloor ocean will be tentatively scheduled in September 09. The next theme of the thematic review will be likely on seismogenic zones.

Science themes before renewal

In the SASEC Consensus 0901-07, SASEC considered the ECORD Council Motion 08-02-6, expressing concern about "progress in the biosphere initiative." SASEC noted that, although progress has been limited by the slow refit of the JOIDES Resolution, there are currently eight biosphere-related proposals awaiting scheduling by the Operations Task Force (OTF). Additionally, at its most recent meeting (25th to 27th August 08), the Science Planning Committee (SPC) accepted the recommendations of the Scientific Technology Panel (STP) calling for substantial enhancements of sampling procedures related to microbiology. Together, the facts that expeditions dedicated to microbiology have been ranked highly and will be scheduled as soon as possible and that numerous valuable samples will be archived from this point forward provide confidence that studies of the deep biosphere share equal priority with the other objectives specified in the Initial Science Plan (ISP). This priority derives not only from the intrinsic scientific interest and importance of these path-breaking studies but also from their capability to significantly broaden and enrich the IODP science community.

Action of the BoG and IODP-MI

An ad-hoc committee was set up by IODP-MI to address the financial crisis. The committee met in Washington DC. In November 29th to 30th 08 to discuss the current budget situation and the future of IODP. Report is available on the IODP website. The ad hoc committee recommendations are:

1. Request from the NSF a total of 80 M \$ annually to ensure adequate funding for the continuous 12-month operation of the JR.
2. Seek other sources of funding, specifically from oil and gas corporations, from other countries and from the philanthropic sector of society.
3. Expand the scope of IODP Marketing and Public Relations.
4. Define the future management structure of IODP-MI in one of two ways: (a) a strong integration model employing well-defined centralized management, or (b) a weak integration model involving coordination at the Implementing Organization (IO) level. Each

IO would be responsible for the operational as well as the scientific funding of its related drilling platform.

5. The proposal handling process for the next phase of scientific ocean drilling needs to be revolutionized. We need more straightforward mechanisms for promoting excellent proposals that incorporate the most important scientific themes, and for rejecting proposals with little chance (scientific or operational) of ever being drilled.

In its SASEC Consensus 0901-09, SASEC receives the report of the Ad Hoc Committee as a useful starting point for discussion of the future structure of IODP. In principle, SASEC would favour a structure that would both minimize management costs and maximize scientific integration in the future IODP. Therefore, SASEC requests that the IWG+ expand on the implications of the management options defined in Ad Hoc Committee recommendation 4 (on the need to define the future management structure of IODP-MI). Additionally SASEC stated that achieving the goals of the Initial Science Plan would require maximizing use of all IODP platforms for scientific drilling. Therefore, SASEC would endorse recommendations 1 and 2 (requesting 80 M\$ from NSF to ensure funding for twelve-month operation of the JOIDES Resolution, and seeking other sources of funding, respectively) of the Ad Hoc Committee report (SASEC Consensus 0901-10).

INVEST

SASEC is overlooking the preparation of INVEST and discussed the current status and made some recommendations to the INVEST steering committee.

In the SASEC Consensus 0901-12, SASEC emphasized to the INVEST steering committee the importance of active participation at INVEST by representatives of fields with important links to IODP science, e.g., climate modelling, cryosphere communities, and reinsurance industry; microbiology and pharmaceutical industry; energy and geotechnical industry.

The respective roles of BoG, SASEC and SPC

SASEC appointed a subcommittee to evaluate models for the BoG/SASEC/SPC structure. Members are John Hayes, Hodaka Kawahata and Gerold Wefer (SASEC Consensus 0901-14). Following Ad Hoc Committee recommendation on the need to revolutionize the proposal handling system for the next phase of scientific ocean drilling, SASEC appointed also a subcommittee to assess models for the proposal evaluation process for the post-renewal phase of IODP. Members are Nick Arndt, Keir Becker and Yoshiyuki Tatsumi (SASEC Consensus 0901-16). SASEC also recommended SPC to simplify the current proposal handling system, for example to reject the proposals that have no chance to be drilled. The next SASEC meeting will be in June 15th to 16th, 09 in Washington D.C., U.S.A.

3. ECORD News

3.1 EMA - ECORD Council

The ECORD Council report was presented by C. Mével. ECORD Council met in London from November 11th to 12th, 08. As of April 1st, 09 the current chair is Fernando Barriga, vice-chair is Chris Franklin (UK). The incoming vice-chair has to be named. ECORD Council membership has changed significantly in the last months.

| <i>COUNTRY</i> | <i>MEMBERS</i> |
|----------------|-----------------------------|
| Austria | Reinhard Belocky |
| Belgium | Jean-Pierre Henriët |
| Canada | Anne de Vernal |
| Denmark | Heidi Eberling |
| Finland | Kati Lũthje |
| France | Mireille Perrin |
| Germany | Guido Lũniger |
| Iceland | TBN |
| Italy | Nigel Wardell |
| Ireland | Koen Verbruggen |
| Netherlands | TBN |
| Norway | |
| Portugal | Fernando Barriga |
| Spain | José Ramon Sánchez Quintana |
| Sweden | Dan Holtstam |
| Switzerland | Martina Kern-Lũtschg |
| UK | Chris J. Franklin |

The council endorsed the nominations to SAS presented by ESSAC.

The council passed the two following actions concerning the implementation of scientific expeditions:

ECORD Council motion 08-02-6

ECORD Council is concerned that IODP will not make significant progress in the biosphere initiative, which was one of the underpinning drivers of IODP. Therefore ECORD Council strongly encourages IODP to make a sustained approach to the study of the deep biosphere. We encourage IODP to link existing, highly-ranked proposals in dedicated biosphere observatory installation with a coupled programme of 4-6 months additional drilling that would be the subject of a specific call for proposals and creation of a 'biosphere mission group', if appropriate working in a regional context.

S. Dürr moved, K. Verbruggen seconded, all in favour. Absentee B. Goffé

ACTION EMA: To send this motion to the BoG chair and the SASEC chair

ECORD Grants

Regarding the ECORD grants the council would expect information at its next meeting to make a decision.

ECORD Council motion 08-02-7

ECORD Council supports in principle ESSAC proposal for the establishment of ECORD Grants. The Council will oversee the budget allocation for these grants at the appropriate time.

S. Dürr moved, N. Wardell seconded, all in favour. Absentee B. Goffé

Funding of 3D surveys

The council would like to hear the opinion of ESSAC at its next meeting

Actions from the previous ECORD council meeting

ACTION ESSAC: To prepare the discussion on how to support 3D-site surveys for European-led proposals for the next ECORD Council meeting.

The ECORD council decided to extend the UK Industry Liaison Panel to all European members. The name for this panel would be ECORD ILP. The first meeting was scheduled for June 16th, 09. Not many countries did nominate a member, though EILP would be important to discuss possible industry funding in the next phase.

ECORD Funding

C. Mével continued that currently there would be problems with Italy regarding unpaid contributions. This problem would be addressed at the next ECORD Council meeting.

E. Erba was very aware of the problem. She informed the ESSAC delegates that she would visit the respective government with the University director to try to solve the problem.

The future of ocean drilling, post 2013

ACTION Executive + S. Dürr: To establish a working group including members outside of the council to finalize the ECORD Vision document for discussion at the next Council meeting.

The meeting of the ECORD executive committee took place May 14th, 09 at the Roissy Charles de Gaulle Airport. Attendees were Fernando Barriga (Portugal), Chris Franklin (UK), Nigel Wardell (Italy), Reinhard Belocky (Austria), Catherine Mével (EMA), Mireille Perrin (France) and Rosa Bernal-Carrera (EMA). The objective was to prepare a vision document for the ECORD Council and the IWG+ meetings. An existing document is the so-called Vision Document prepared formerly by Stefan Winkler-Nees and was the result of a meeting in Copenhagen in December 2007. The document focused on "the European Sea-Floor Agency". A new version of a "Vision document" would need to incorporate elements of the previous "Vision Document" and the workshop report "beyond 2013" should lead to a first draft of a document "a vision for the future of ocean drilling in Europe". It was planned to circulate this draft document to the ECORD Council before the next 2009 June meeting in Lisbon. Questions to be addressed would be for example:

- A new, innovative science plan with more societal relevance
- What structure is the best adapted to fit the science plan?
- Relationships with other programmes, DSF concept
- Should we seek for partnership with industry? In what form?
- What should be our organization at the ECORD level?
- Relationship with the European Commission?

The discussions at the ECORD level would be essential to prepare IWG+ and ECORD position". ECORD would represent by a subset of the ECORD Council {viz. Chris Franklin (UK), Mireille Perrin (France), Guido Lüniger (Germany), Jose Ramon Sanchez-Quintana (Spain), Fernando Barriga (Portugal) and Anne De Vernal (Canada)}. The IWG+ would work for several years (till 2012). C. Mével continued that it would be important to keep the same representation for continuity.

C. Mével pointed out that at the scientists level, it would be essential that ESSAC/the science community convince their respective funding agencies, that a continued access to ocean drilling is essential, as there are a lot of other competing initiatives going on and ECORD/IODP would compete with those initiatives. She emphasized the important issue that it would be the scientists responsibilities to communicate to the funding agencies, that IODP is important and the ocean drilling initiative is much more important than the other initiatives.

ECORD and the EC

The ECORD-net project ended in August 08 and currently ECORD did not receive support from the EC anymore. ECORD continued to investigate funding possibilities under FP7 and beyond. C. Mével reported that there has been a call in the 2009 EC work programme ENV.2009.2.2.1.6 and A. Kopf (University of Bremen) coordinated the proposal the "Deep Sea and Seafloor Frontier – DS3" submitted last January in 09. The project would be probably funded with roughly 1 M€ over 2.5 years and the drilling community was encouraged to participate in the workshops. There would be workshops planned at the WP level. For the last year a major conference in Barcelona was envisaged. The overall aim of this coordination action was to produce a road map for future common projects between the different science programmes.

Participants of this EU project are:

| Participant No. | Participant organisation | Country |
|------------------------|--|----------------|
| 1 & coordinator | MARUM Research Centre, University of Bremen | Germany |
| 2 | Center for Geomicrobiology Aarhus | Denmark |
| 3 | Institute Francais de Recherche pour l'Exploitation de la Mer (IFREMER) | France |
| 4 | INGV, Rome | Italy |
| 5 | IPG Paris | France |
| 6 | Max Planck Institute for Marine Microbiology | Germany |
| 7 | National Oceanography Centre, Southampton | UK |
| 8 | University of Barcelona | Spain |
| 9 | University of Tromsø | Norway |

C. Mével reported that in parallel, Pascal Le Grand a new, junior science officer organized a closed workshop to discuss possible themes for an EC call on DSF in Brussels, May 25th, 09. The previous contact person for ECORD ERA-Net has been Alan Edwards. The participants were representatives from the scientific programmes HERMES/HERMIONE, ESONet and EMSO and ECORD represented by Achim Kopf, Angelo Camerlenghi, Jan De Leeuw, Wolfgang Bach and Catherine Mével. The decision has been taken to promote the idea of a joint marine "deep sea" call in 11 with the support of several DG. There were an upper limit of 30 M. €, however it would be more likely to obtain much lesser funding. Hot topics were the environment, energy (gas hydrates...), food (fisheries). The current situation was not very satisfying as there would be no common overall concept for those different initiatives. There would be not incentive for integration.

Pascal le Grand also attended the ECORD/IODP symposium at EGU. He seemed to be very interested in the Arctic. He asked C. Mével to provide more information about current activities in the Arctic. He also recommended contacting either Philippe Tulkens or Lars Müller regarding future ECORD activities with other programmes.

The next ECORD council meeting took place in Lisbon from June 9th to 10th, 09. Guest was Marc Heppener, the new Director of Science and Strategy Development at ESF, Uli Harms from ICDP and Lester Lembke-Jene, who acted in place of the current ERICON-AURORA BOREALIS executive manager Nicole Biebow. All of them had been invited to share ideas about the future of scientific ocean drilling in Europe.

C. Mével explained that it would be important that project would address issues of societal relevance such as fisheries issues, processes at the deep sea floor or mineral resources such the gas hydrates. She said that the DSF group would try to link the demands of the EC and the interest of the different scientific programmes involved. However, the problem with the respective calls would be that everybody could apply and that would not be helpful for ECORD.

R. James asked as ECORD had been trying since long time to get funded by the EC, how the process is going on at the moment. C. Mevel expressed her feeling, that the EU would never fund the programmes as such. But that the EC was currently interested in funding projects. She added that the EC is currently very interested in the Arctic.

3.2 ESO

A. Stewart reported about the current MSP activities.

A. Stevenson reported about the last ESO activities, which focussed on the New Jersey Shallow Shelf and the Great Barrier Reef Environmental Changes Expeditions.

New Jersey Shallow Shelf Expedition (NJSS)

A contract had been signed with DOSSEC on 21st January, 09. The *L/B Kayd* left Louisiana in early April, 09 and arrived Atlantic City April 22nd, 09 ahead of schedule. The ship then left Atlantic City on April 30th, 09 to reach site MAT-1A on May 1st, 09, completed coring of first hole May 19th, 09 and started a second borehole on May, 24th, 09. The expedition is expected to end late July 09. The onshore science party in Bremen is going to start November 6th, 09.

Progress

The hole MAT-1A ended at 631 MBSF, reached ~20m above Priabonian and crossed Eocene/Oligocene boundary. It would not be clear if the Chesapeake Bay meteorite impact tektonites were reached. Also it was logged with complete Total Gamma-Ray and the results from magnetic susceptibility and resistivity from 430-631 were very good.

Outreach

A media conference took place on 29th April, 09 at the Trump Marina Hotel. Following press representatives attended the event: NJN (New Jersey News), NBC Channel 40 (broadcast on 6pm news), Atlantic City Press (front page on 2 consecutive days), Scientific American and Philadelphia Inquirer/ New York Times. An IODP film crew took 6 hours of film on board the *Kayd* (promotional DVDs/YouTube etc).

Great Barrier Reef Environmental Changes Expedition

A contract was signed on 11th May 09. The platform provider is "Bluestone" based in Singapore. The vessel *Bluestone Topaz* will be mobilised in Singapore/Townsville in October 09. 42 days survey is planned between October and December 09.

R. Stein asked how long it would take to prepare a MSP project. A. Stevenson explained that ESO could implement an MSP in a shorter time. New Jersey was unusually long and because of that people would think that MSPs take so long, that New Jersey were the standard, but that Great Barrier Reef would be more the standard viz. that the implementation would take about 1 year. R. Stein said that he thought of implementing another Arctic proposal. C. Mével and A. Stevenson responded that this sort of MSP project would of course take longer as the logistic would be more important.

GBR

A. Stewart continued that the GBR expedition was planned for September 09. The expedition would depend on the timely implementation of the New Jersey expedition. More than 1 tender responded to the call. The contractual discussions would be ongoing with the preferred contractor. ESO had applied for a new drilling permit from the GBRMPA (for time extension and greater number of holes). The GBRMPA was satisfied with ESO Environmental Management Plan. NERC had signed a Deed of Agreement with the GBRMPA. The GBR expedition was approved by the SSP. The current co-chief scientists would be Jody Webster (Australia) and Yusuke Yokoyama (Japan).

New Jersey

2 MSP expeditions were planned in 09 (NJ and GBR), the 2 corresponding science parties in 2010. ECORD had expressed the desire to implement every year a MSP Expeditions viz. for 11, 12 and 13. Currently there would 1 MSP proposal within OTF, the Late Pleistocene Coralgal Banks 581-Full2 proposal.

Other MSPs currently in IODP SAS system are (1) New England Margin Hydrogeology (637-Full2), (2) Chixculub K-T Impact Crater (548-Full3), (3) NW Pacific Coral Reefs (615-Full2), (4) Baltic Sea Basin Paleoenvironment (672-Full2) and (5) Central Arctic Paleooceanography (708-Pre).

3.3 EMA- ESO-ESSAC Meeting

P. Maruéjol summarised the last activities of the ECORD Education and Outreach team, which met in January 09. The main function of this team would be to integrate outreach activities between the different ECORD bodies, so that ECORD would speak with one sole voice to IODP-MI and partners. Discussion themes dealt with ECORD/IODP activities at EGU 2009, the ECORD Newsletter #12 - April 09, new or updated ECORD brochures, the review of outreach materials (core replicas, posters...) and ECORD websites.

The next meeting will take place in August 5th to 6th, 09, in Aix-en-Provence

U. Wortmann questioned if the ECORD community would need a newsletter. He as an IODP person would know what was going on, but he was not sure if the newsletter would address the right question to the right target audience. He argued that the scientists would probably need a shorter version. He asked if the ECORD newsletter would be conceived for the general public. C. Mével denied. P. Maruéjol said that there would be the IODP e-news. C. Mével said that the NL was not hot news, that it would rather gather general information. U. Wortmann thought that it would be utile if it could be evaluated how efficient ECORD would be in its communication. L. Lourens said that he would put the brochure in several coffee places at the University, in order that colleagues outside the IODP world could have insights and that they indeed would read the brochure. B. Wolff-Boenisch thought that U. Wortmann was right to ask after the target groups. She thought that it was more an internal brochure rather a brochure for other programmes. C. Mével agreed on that and said the newsletter would be rather read by the IODP community (letter from the chair etc.) A. Stevenson thought that it would be very difficult to measure outreach activities but the application of young students would insinuate that students would read the brochure. The brochure as well as other Education and Outreach measures would be very good to keep the visibility of the programme. At the EGU a lot of young scientists come and asked about the information. C. Mével argued that the website would be the place for the day-to-day news. U. Wortmann asked, if the daily traffic could be monitored. P. Maruéjol agreed and said that the Newsletter webpage was the more read. U. Wortmann thought that the teacher workshops would be very efficient in order to channel information and to promote things. C. Mével replied that teachers were not the main audience and A. Stevenson explained that because of the different national education programmes the newsletter would not target the teacher audience. That also it would be a question of resources.

3.4 ESSAC representatives and National Office reports

Election of ESSAC Chair and vice-Chair

G. Camoin summarised the tasks of the 3 different ESSAC subcommittees and presented the new coordinators and the new members.

G. Camoin emphasized the fact, that regarding the ESSAC Terms of References, a Chair and a vice-Chair should be elected from among ESSAC members and approved by the ECORD Council. The incoming Chair would serve one year as vice-Chair followed by two

years as Chair and then would rotate off as vice-Chair during the fourth year. The incoming vice-Chair should be nominated by October 1st 2010.

J. McKenzie suggested to discuss this item informally at the meeting, as an important preparation phase would be needed to detect a suitable incoming vice-chair. Also the respective institutions had to be contacted in the forefront to ask for support. She suggested Spain as future location for the ESSAC office as of 2011. She asked M. Comas if Spain would be interested. M. Comas confirmed that the Spanish Ministry would appreciate if Spain would become a future host of the ESSAC Office. As she would rotate off in May 2010, she suggested that Carlota Escutia could act as potential new ESSAC delegate and future incoming Chair. She continued to argue that Carlota Escutia would be very capable and would have very good relationship to a wide science community. G. Camoin asked if Carlota Escutia would be available and M. Comas confirmed that her colleague would be certainly be interested. C. Mével suggested N. Koç as Norway would be a big contributor to ECORD. Stein asked about for Switzerland and J. McKenzie said that she would prefer that Switzerland would be considered as third choice. G. Camoin emphasized that this discussion was informal and that all ESSAC delegates were welcomed to make other suggestions. C. Mével told the ESSAC delegates that the visibility of ECORD would increase in the respective country, as soon as the ESSAC Office had been installed.

> ESSAC Action Item 0905-04: The ESSAC delegates will send suggestions to the ESSAC office regarding the future incoming chair.

Each ESSAC delegates reported about current developments in their countries:

U. Wortmann presented the Canadian activities. Canada sent a proposal to host an ECORD Summer School. There were 3 Canadian applications for the ECORD scholarships. Next year would be very important for Canada as the renewal of the ECORD funding would be decided at that time.

E. Erba remembered that Italy was currently trying to pay its contribution to ECORD. IODP Italy established an own distinguished lecture program and visited 6 institutions to promote ECORD. They also issued an own Italian Newsletter.

K. Strand explained that Henna Valppu was a science party member of the New Jersey Expedition. There had been a support group meeting a couple of weeks ago in Helsinki. Additionally there was a finish scientist involved in the Baltic proposal. K. Strand was also involved in a sampling proposal from Wilkes Land. K. Strand mentioned that he was asked to be active regarding the organisation of a workshop for AURORA BOREALIS. He thought that AURORA BOREALIS would be very important regarding EU activities. It is in the ESFRI Road Map. Finland belongs to the ERICON Project.

M.-S. Seidenkrantz explained that she represented "IODP Denmark". J. Parkes has been invited by a Danish research institute. Also there would be expectation from Denmark regarding the Baltic Sea proposal. Recently there had been preparation regarding a pre proposal for a North Sea project regarding the North Sea structural geology.

Ian Snowball mentioned that he replaced E. Arnold. He also appreciated very much the Baltic Sea Proposal. J. Backmann was sailing on the EqPac Expedition 1. Swedish scientists submitted 2 IODP proposals, one in the Northwest Atlantic and the other in the Arctic. A Swedish PhD student recently applied for the Canterbury expedition. M. Ask would be involved in EDP and probably become vice-and then EDP Chair.

L. Lourens reported about the visit of A. Kopf and P. Clift in the context of the DLP programme in the Netherlands. Also there has been a workshop regarding the AURORA BOREALIS. He noted, that polar research interest increased in the Netherlands. A proposal had been submitted to the Ministry of Education and Sciences. The volume was about 10 Mio \$ for structuring polar research, viz. including aspects regarding the AB. 2 Dutch scientists would sail on expedition PEAT 2. The new SASEC panel member is Dutch.

R. Stein mentioned 2 points. The first dealt with the ECORD budget. In February the final decision was taken that Germany would pay the 5.6 Mio \$ until 2013. 1/2 would come from the DFG, the German Research Agency. The other part would be paid by the AWI, the BGR,

the GFZ, the IFN and the MPI of Bremen. As of May 1st, 09 there would be a new IODP science coordinator, Mathias Held.

G. Camoin noted that there would be nothing new to be reported for France. C. Mével added that France joined ICDP. A group of French Scientist would try to promote a proposal in the Mediterranean Sea.

F. Abrantes reported that a Portuguese scientist would sail on the JR in the frame of the School of Rocks and that this would be very good to promote the programme within the country. Portugal asked to host J. Parks. Additionally IODP Portugal participated at a science fair. F. Barriga was currently the new ECORD chair.

M. Comas mentioned that the Spanish Government augmented its ECORD contribution. The Ministerial support changed. IODP Spain would not be overseen anymore by the Department of Internal Cooperation, but by the Department of Infrastructures that also would supervise programmes such as the SYNCOTRON. Spain is going to host 2 major conferences, the SCAR in Grenada and the Hydrologia conference in Pontevedra in 2010. C. Escutia would be the chair of a breakout group at the INVEST Conference. There would be also the Atlantic Mound Drilling proposal 673-Pre2 at the Morocco Margin. Spain formally joined ICDP and the secretary would be together with IODP plus IMAGES. Spain would support the ERICON AURORA BOREALIS project.

X. Monteys replaced B. McConnell. He told the ESSAC delegates that an Irish scientist had been invited to take part at the Canterbury Expedition. Ireland invested in new equipment for marine core analysis. The costs are about 1.5 M €, which would promote in a way marine research and indirectly IODP research. During an Irish expedition MeBo has been used, however the results obtained were not very good.

W. Piller reported that the Austrian office was still trying to convince the Austrian community to apply for IODP expeditions. In the past there were 2 Austrian applications, 1 for the Bering Sea and 1 for the Great Barrier Reef expedition. The first applicant withdrew his application because of the delay of the expedition, the other candidate was not chosen to take part at the GBR expedition. There are 2 Austrian proponents on an IODP proposal. M. Wagreich was co-organiser of the European Pre-Invest conference "Beyond 2013".

A. Foubert reported that Belgium was currently negotiating membership with ICDP. A Belgium scientist is lead proponent of the proposal 673-Pre2. J. Parkes was invited to come to Belgium, however so far he did not give feedback, if he would come.

R. James reported about the 2-day IODP UK symposium. 22 talks and 5 keynotes were given by scientists from different countries. After this event the UK IODP steering committee met and took the decision to try to fund about 20 UK scientists to take part in INVEST. One major issue raised during the meeting was the strategy for the renewal of the funding in the UK. Some concerns were raised about the dilution of the programme for example that China would think to have its own drill ship. The programme was already very expensive and the question would be how to deal with this. A significant number of UK young scientists applied for the ECORD scholarship grants.

J. McKenzie told that the IODP Switzerland had also an IODP meeting. She reported that A. Strasser, liaison to the Swiss national funding agency said that the funding would be secured to the end of the program. There would be 2 Swiss scientists on IODP panels, but the main problems in Switzerland would be the lack of suitable participants in expeditions. Most of the nominations for sailing would be PhD. J. McKenzie thought that young scientist would not bring new projects neither national funding into the programme. Also, because they would leave later on. She thought that ECORD would currently fill up its berths with young students as no confirmed scientists wanted to sail. She was wondering where the new Swiss community would come from.

4. Nominations and Staffing

4.1 Staffing

4.1.1 Ranking procedures, quotas and statistics

G. Camoin reviewed the current expedition staffing and quotas as indicated in the 12th ESSAC agenda book (compare item 4.1 staffing in the agenda book). He drew the attention to the fact, that ECORD had a good outcome regarding the berth staffing. So far ECORD got 182 berths for 22 expeditions equalling to 8.272 berths per expedition.

Countries applications

Concerning the ratio of applications per countries, most countries did receive sufficient applications in relation to their financial contribution. One exception was France, which got an application rate of 11.4 % for a financial contribution of 25.1 %. The other 2 extremes would be Italy and Spain, which provide many more applications than their financial contribution to the program would allow them to sail.

Applications-Selection / Young scientists/Women

G. Camoin continued to explain that ECORD was doing very well with application from women and young scientists. The statistics of the distinct expeditions are with respect to the number of applications and number of berths (wom = woman; ys = young scientists):

New Jersey 1 short call: 7/1 (4 ys > 1; 2 wom > 0)

Great Barrier Reef: 28/8 (10 ys > 2; 7 wom > 1)

PEAT: 55/16 (30 ys > 7; 23 wom > 2 + 1)

Bering Sea short call: 19/4 (7 ys > 1; 12 wom > 3)

Shatsky Rise*: 15/8 (9 ys > 4 to 5; 8 wom > 3 to 4)

Canterbury Basin*: 21/6 (9 ys > 3; 7 wom > 2)

Wilkes Land: 62/10 (29 ys > 4; 25 wom > 4 + 1)

NanTroSEIZE 1B #319: 11/8 (6 ys > 4; 3 wom > 3 + 1)

NanTroSEIZE 1B #322*: 13/8 (8 ys > 4; 5 wom > 3)

*Ongoing staffing

From a total of 241 applications, 112 came from young scientists (46.5 %) and 92 from women (38 %). From 69 berths, 31 berths were offered to young scientists, viz. 44.9 % and 25 berths to women, viz. 36.2 %.

A discussion started about the high number of student applications. B. Wolff-Boenisch said that the discussion about the right community is also related to the fact, that expeditions like the Shatsky Rise do not have a lot of applications. A. Foubert asked how Postdocs would be counted. B. Wolff-Boenisch confirmed that there was no differentiations between Postdocs who just started their career or who already had several Postdocs position. C. Mével thought that the communities would vary among the countries. M. Comas said that she would sometimes discourage people because of the Spanish quota problem and that she would carefully consider to whom send an invitation.

4.1.2 Updates on expedition staffing: New Jersey Shallow Shelf, Great Barrier Reef Environmental Changes, PEAT Paleogene, PEAT Neogene, Bering Sea, Shatsky Rise, Canterbury Basin, Wilkes Land, NanTroSEIZE 319 and NanTroSEIZE 322

G. Camoin reviewed the current expedition staffing and quotas as indicated in the 12th ESSAC agenda book (compare item 4.1.2 Updates on expedition staffing: New Jersey Shallow Shelf, Great Barrier Reef Environmental Changes, PEAT Paleogene, PEAT Neogene,

Bering Sea, Shatsky Rise, Canterbury Basin, Wilkes Land, NanTroSEIZE 319 and NanTroSEIZE 322 for the tables).

Great Barrier Reef

The members of the Nomination and Staffing (N&S) Subcommittee wished to summarise the procedure and the selection of the applicants and the final staffing of the expeditions. Before the discussions started, G. Camoin left the room as he had not been involved in the staffing and was deemed conflicted.

The ESSAC Office accepted 27 valid applications out of 29 received. Regarding the ESSAC Action Item 0805-11 and the ESSAC Consensus 0805-05, the applicants' CVs had been sent to the respective National Office/ESSAC delegates in the forefront of the deadline. 5 out of 10 countries concerned gave recommendations to help other ESSAC delegates to better judge the applications. According to the ESSAC consensus 0805-05, 7 countries out of 17 grouped the applications in agreement with the current ESSAC procedures.

B. Wolff-Boenisch compiled the grouping results of the ESSAC delegates. The final table, including the ECORD quota balances, the specific applicants' expertises and the additional comments on applications from the relevant delegate and/or national office (5 out of 10 concerned) were sent to the members of the ESSAC Nominations and Staffing Subcommittee on September 11th, 08.

Summary of the 11th ESSAC meeting minutes by L. Lourens

The subcommittee made a priority list and took into account that (1) France had a very large negative quota balance (-4.0, at that time), which justified three berths. (2) Besides G. Camoin, P. Gouze had been selected, because it was judged, that he would bring another unique expertise to the team, i.e. enlarges the scientific scope. (3) P. Deschamps was preferred to G. Cabioch, because of its expertise (dating would be as important for GBR as it was for Tahiti). (4) The UK had three strong candidates, but given a quota balance of 0.0 three berths could not be justified. (5) Germany had three strong candidates, but given a small negative quota balance of -0.5 three berths were not justified. T. Felis was preferred to T. Brachert, because a strong expertise in carbonate sedimentology was already ensured by other applicants. As Austria did not had a berth yet, the subcommittee proposed to select D. Sanders among the top 8 candidates, also because the candidate received strong support from W. Piller. Unfortunately Spain was very overquoted and therefore Braga was not selected, though his CV and expertise was evidently extraordinary. The final list was sent back to the ESSAC Scientific coordinator, who sent it to ESO, and to the other ESSAC delegates, September 19th, 08.

L. Lourens explained that there has been 2 major differences between the list made by the ESSAC subcommittee and the final selection made by the co-chiefs, viz. the replacements of P. Deschamps by C. Seard (F) and D. Sanders by J. Braga (E).

So far, the subcommittee did not understand why this changed had been done. L. Lourens asked B. Wolff-Boenisch who made the decision, why this decision was made and why the ESSAC Office did not try to get an extra berth for Austria. B. Wolff-Boenisch summarised the decision process. She mentioned that the GBR expedition was an example for a discrepancy between ESSAC preferences and the co-chief's choices. Before the ESSAC priority list was made an intensive discussion took place. J. Braga was very highly ranked, because of his specific expertise. However the ESSAC subcommittee did not list him among priorities, because Spain was very overquoted. In contrast, the subcommittee suggested the participation of D. Sanders based on the quotas and on the recommendations by the national offices. The subcommittee did accept the fact that 3 French scientists had to be on the list to compensate the significant underquota of France. However, the co-chiefs did not accept the proposed list as a whole based on expertise requirements. They replaced D. Sanders (sedimentologist) by J. Braga (alga specialist) and P. Deschamps (geochemistry)

by C. Seard (sedimentologist and reef modeller). This list sent by ESO arrived at the ESSAC office without no explicit comments why they did made the changes and B. Wolff-Boenisch forwarded the list to the ESSAC subcommittee (November 20th, 2008). In a next message B. Wolff-Boenisch tried to explain to the subcommittee why the co-chief did not follow ESSAC's subcommittee recommendations. Obviously Braga was considered indispensable to fulfil the scientific goals. In the case of the French Scientists, the co-chiefs did not select P. Deschamps, because they already selected two other dating specialists. However, the co-chiefs considered the quota problems of France and proposed to replace P. Deschamps by C. Seard, a young female student, although she had a lower grouping than the confirmed scientists. In her message B. Wolff-Boenisch suggested 3 potential possibilities on how to react regarding the co-chiefs choice: 1. to accept the co-chief's list, 2. to change the list, and potentially start a very long back and forth process. This option would have implied that the subcommittee would have conceived a new list, 3. to accept only six candidates risking to to loose the other 2 berths. The ESSAC subcommittee representatives did not conceive a new list, they finally accepted the list.

The ESSAC Office did also try to negotiate another berth for D. Sanders, which was eventually not possible due to limitation in berth numbers related to the incorporation of new members in IODP. C. Mével informed the ESSAC delegates, that the burden was now all on the MSPs and less on the JOIDES Resolution. MSPs would have now more scientists than any other expeditions (28 berths). L. Lourens thought that the co-chiefs could have given 9 berths to ECORD in order to solve the problem with D. Sanders. B. Wolff-Boenisch argued, that of course 9 berths for ECORD would have solved a lot of problems and discussions, but that the co-chiefs would have to keep also the balance of interest of the other lead partners, such as Japan and the US plus the new IODP members. L. Lourens thought that the co-chiefs did not give any reason why they made the change. B. Wolff-Boenisch agreed, but pointed out that those discussions were between the IO (ESO) and the co-chiefs.

J. McKenzie thought that the problem was also that the co-chiefs replaced a low ranked candidate (PhD) to replace a highly ranked applicant (C. Seard replaced P. Deschamps).

She also thought that is was not the job of the science coordinator to communicate with the IO, that it would have been the duty of the ESSAC vice-Chair. However, at that time R. Stein, ESSAC vice-Chair was offshore and nobody volunteered to negotiate with the IOs and to replace the scientific coordinator. C. Mével said that the co-chiefs should be aware that ECORD has to monitor quotas. She answered to F. Abrantes question regarding the possibility to add D. Sanders to the Science Party. She said that it would not be possible to add more scientists in a Science Party, as expertises etc. would have to balance out. F. Abrantes explained that she just thought about a solution how to still involve Sanders. C. Mével explained that it would not be the decision of ESSAC to augment to berths.

W. Piller and C. Mével explained to R. Belocky that it had been a co-chiefs decision and R. Belocky said, that he did understand this point. However, R. Belocky explained, that it was difficult for Austria to find scientists to sail and that it would have been a great chance for his country.

R. Stein asked if the ESSAC Office could write to the co-chiefs asking if D. Sanders could still become a shore-base scientists. C. Mével said again, that the composition of the Science Party is a co-chiefs decision, but perhaps there should be another discussion to explain to the co-chiefs why it was so important that D. Sanders could sail. F. Abrantes thought that D. Sanders was an exceptional case. R. Stein reminded that in the past, viz. before the ESSAC Office went to France, the co-chief had only to deal with 2 applications from the UK, Germany, France and 2 from small countries. C. Mével explained that the final decision would be constrained by 2 diverging facts. On one hand the co-chiefs wanted to have the best science party and choose the adequate and on the other hand, there would be the PMOs and the funding agencies, which would say, that they pay and want to have the quotas taken into consideration. She stated that it was very difficult to reconcile both sides. So far there would be some countries, which never have sent scientists to an expedition. E. Erba was surprised that the co-chiefs would have the last word in the composition of a Science Party. She was informed by I. Rafi that she could not select the best scientists, because she had to take care of the PMO's recommendation. B. Wolff-Boenisch said that

this would strongly depend on the expeditions and on the co-chief's personality. J. McKenzie mentioned that France was very underquota, however Austria never sailed. She also thought that the IO and co-chiefs should be contacted again to explain ESSAC's quota problems. B. Wolff-Boenisch remembered the ESSAC delegates that the co-chiefs had all information regarding quota issues, groupings results, viz. stars grouping of the single scientists as well as the formal priority list. I. Snowball thought that ESSAC should be very cautious to explain the co-chiefs that D. Sanders would be an exceptional case as this approach could potentially create a series of exceptional cases to get other unhappy candidates in the Science Party, and that one has to draw a cut off line

> ESSAC Action Item 0905-05: Following the decisions of the co-chiefs from Expeditions 325 to replace D. Sanders by J. Braga, ESSAC will recommend to D. Sanders to send a sample request, so that he could be able to be considered as a shore-based scientist, if the sample request is accepted by SAC (Sample Allocation Committee).

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| <p>ESSAC Consensus 0905-02: The staffing of the expedition is a long iterative process involving the PMOs, the IOs and the co-chiefs of the expedition. The chair of the respective PMO is in charge of the final negotiations with the IOs and the co-chiefs.</p> |
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4.2 SAS panel nominations

G. Camoin reviewed the current composition of SAS panels as indicated in the 12th ESSAC agenda book (compare item 4.2 SAS panel nominations in the agenda book).

The SAS panel structure has been discussed by the ESSAC delegates. The problem would be the heavy structure and also the potential interest of single persons. C. Mével thought that there would be a lot of commitment needed sitting in the panels and therefore personal interest would be necessary. M. Comas did not agree. She thought that the panels should be more democratic. C. Mevel thought that in IODP the conflict interest would be well explained. F. Abrantes argued that there would be the same persons judging about the panels in which they were sitting and that of course this could not work. She liked the idea of M. Comas, that the panel member should serve to the community rather to pursue his or her interest. However, she stated she was aware that it was currently difficult to find replacements, as the people would not want to spend precious time preparing and travelling to panel meetings. She indicated that this would probably be a problem of small countries.

C. Mével mentioned that ICDP could be a model. J. McKenzie thought that it is more bottom-up programme of course with a different budget. C. Mével continued to say that there would be a need to secure funding for the MSPs. G. Camoin explained to the ESSAC delegates that the MSPs are expensive. R. Stein asked how ICDP would work, to his knowledge part of the money had to be secured by the proponents. B. Wolff-Boenisch explained that the membership fees were used for the operations costs, and that the funds for research had to be raised by the proponents. She also said that the ICDP model cannot be transferred 1 to 1 to IODP, but that the proposal evaluation system and the workshop approach should be considered in the renewal of IODP.

6. Education and outreach

6.1 ECORD Scholarships

B. Wolff-Boenisch remembered the ESSAC delegates that regarding the ESSAC Action Items 0810-13 and 0810-14 a checklist including the items that the ECORD Scholarship applicants have to take into consideration when applying (viz. a detailed Letter of Interest, a CV and a Letter of Support) had been indicated in the flyer. At the 10th ESSAC meeting,

which was held in Stockholm, the ESSAC Education and Outreach subcommittee decided that the most important document was the Letter of Interest, exploring the reasons for application and how the ECORD summer school would be utile for future scientific career. Regarding the 2009 ECORD scholarship applications, 71 applications thereof 64 valid applications from 15 ECORD countries (none from AUS and P) had been received. This represented an increase of ca. 55% compared to the 44 applications in 2008 and the 48 applications in 2007. The 8 non-valid applications came from non-ECORD countries (3 US, 1 India, 1 Bangladesh, 1 China, 1 Mexico and 1 Panama). 1/3 of the applications came from the UK (viz. 22). In 2009 44 students applied for Urbino (75%) and 16 for Bremen (25%). This was comparable to the results of the years 2007 and 2008. After the compilation of the rankings provided by 10 ESSAC delegates, a synthesis of this ranking had been undertaken by the E&O subcommittee in Sesimbra.

For the final results compare item 5. "Breakout session ESSAC E&O Subcommittee".

6.2.3 2010 ECORD Summer Schools

According to the ESSAC Consensus 0805-08 a call to host an ECORD Summer School in 2010 had been issued in October 06th, 08 with a first deadline on 30th April 09 and then a second on May 15th, 09 deadline to give sufficient time to potential organisers to finalize their project. The budget increase for the Summer Schools 2010 had been announced in the call. 3 applications were sent to the ESSAC Office. B. Wolff-Boenisch reminded the ESSAC delegates that according to the ESSAC Consensus 0805-07, ESSAC recommended not to fix the number of ECORD Summer Schools, but to decide to fund the Summer Schools on a case-by-case basis, depending on the feedback of the call.

During the 12th ESSAC Meeting in Sesimbra, the ESSAC delegates voted on the financial contribution regarding the 3 applications. The results of the discussions are summarised under item 5. "Breakout session ESSAC E&O Subcommittee".

6.2 Summer Schools

6.2.1 Past Global Change Reconstruction and Modelling Techniques Summer School, Urbino 09

L. Lourens gave an overview other the current activities of the Past Global Change Reconstruction and Modelling Techniques Summer School in Urbino 09. In 2009 116 applications were received. 41 for MICOD, 75 for the Summer School (for complete detail compare the agenda book of the 12th ESSAC meeting).

The course intends to provide to young researchers advanced knowledge of the various types of (paleo) biological and geochemical proxy data and how these data are used in paleoclimatic/paleoceanographic reconstructions and modelling.

MICOD aims at providing a multidisciplinary learning experience within the field of Ocean Drilling Sciences and stratigraphy of marine sediments. A general introduction to the oceanographic and climate system and dynamics will complement a series of lectures and exercises on the stratigraphy of marine sediments. Field sampling will allow students to produce original data across intervals marking the evolution of Cretaceous and Cenozoic climates. Produced data will be compared with the deep-sea records to evaluate them in a global context.

The collaboration with the Consortium for Ocean Leadership "School of Rock" (http://oceanleadership.org/learning/teachers/school_of_rock) will allow implementing modules mimicking the typical situation of incoming cores onboard the JOIDES Resolution.

The second course of the USSP summerschool will discuss past climates variability and dynamics of Cretaceous and Cenozoic climates at different time scales and seeks to integrate lectures on the many different areas of paleoclimatology including biogeochemical cycling, paleoceanography and climate models.

6.2.2 ECORD Summer School on Geodynamics of Mid-Ocean Ridges, Bremen, 09

G. Camoin gave a short summary about the programme of the ECORD Summer School 09 in Bremen "Slow-Spreading Mid-Ocean Ridges" which will be organised from 31st August to 11th September, 09. The summer school is funded by ECORD, the Bremen International Graduate School for Marine Sciences (GLOMAR), the Bremen DFG Research Center and Cluster of Excellence (MARUM) and InterRidge and is organized by Dierk Hebbeln and Ulla Röhl (MARUM), Benoît Ildefonse (U. Montpellier) and Wolfgang Bach (U. Bremen).

The aim of the Bremen school is to introduce 30 graduate students and young Postdocs to one of the major scientific themes of IODP (here: geodynamics). The topic is timely, because our perception of slow-spreading ridges has changed fundamentally in recent years.

The format is a mix of lectures, student talks, practicals (the virtual ship) and field trips.

6.2.3 Canadian Summer School Application

As there was no representative of the planned Canadian Summer, School U. Wortmann presented the concept of the new Canadian ECORD Summer School. The Focus will be on paleoclimate reconstructions in polar, sub-polar environments, with seasonal ice-cover and large freshwater inputs. Techniques to be covered are Micropaleontology, Paleomagnetism Palynology, Geophysics, Sedimentology and Isotope Geochemistry. The highlight is a 2 days ship trip, including coring, and multibeam seismics. The duration is of 1 to 2 weeks in August 10. Maximum participants are 24 and the location is the St. Lawrence Estuary. The required budget is about 20 k€ from ECORD. The registration would give another 13 k€. It seems that the 3rd party commitment is about 40 k€.

6.3 Distinguished Lecturer Programme 08-09

B. Wolff-Boenisch summarised the activities of the lecturers of the 08/09 Distinguished Lecturer Programme. The programme started in October 08. A. Kopf and P. Clift gave their first lectures at the University of Aberdeen, UK and at the University of Tübingen, Germany, respectively. J. Parkes planned to start his lectures in April 2009 in Aarhus, Denmark.

B. Wolff-Boenisch reported from her visit of the University of Montpellier, France on May 15th, 09. Besides her presentation about ESSAC activities regarding young researchers, A. Kopf and P. Clift both gave a lecture. About 30 to 40 scientists attended Peter Clift's lecture. A. Kopf's talk was less attended, but attracted more students.

G. Camoin mentioned that he would pay the travel to Australia to J. Parkes, after that J. Parkes has fulfilled his obligations and visited all interested hosts institutions from European countries and Canada. B. Wolff-Boenisch listed the name of countries, which were interested in hosting J. Parkes, but were not contacted yet (as of May, 27th, 2009). The countries are Switzerland, Finland, Bulgaria and Belgium.

6.4 School of Rock

B. Wolff-Boenisch summarised the result of the School of Rock applications to sail with the newly refitted JOIDES Resolution.

In total the ESSAC Office received 28 applications, but only 20 applications were valid (1 G, 5 ES, 1 BEL, 3 I, 6 F, 2 P, 1 SWE, 1 AUS). All eligible applications were sent to the ESSAC Education and Outreach Subcommittee on March 2nd, 2009, who made a priority list of six teachers, 2 being especially recommended: 1 teacher from France with no previous experiences with IODP and 1 teacher from Portugal with experience in the Teachers-at-Sea programme and who contacted the Education & Outreach Manager, Leslie Peart at the 2008

AGU in the forefront of that call. The School of Rock did follow the recommendation of the ESSAC Education and Outreach subcommittee. The other 4 teachers on the list came from Belgium, Italy, France and Portugal.

6.5 ECORD Publications

6.5.1 ECORD Newsletter #12

P. Maruéjol reported that the 12th ECORD Newsletter had been released by mid April 2009 and widely distributed during the EGU 2009. The electronic version is posted at: <http://www.ecord.org/pub/nl.html>

- The Newsletter included 20 pages and a revamped front page. A new regular article has been added to allow each of the ECORD member countries to have their say on the benefits that IODP brings to their national science programmes. It started with 'A Letter from Ireland'.

The next regular issue will be ECORD Newsletter #13 - Oct.-Nov. 2009 (to be distributed at AGU 2009 in San Francisco) and will be set up during the next ESO-EMA-ESSAC meeting in Aix-en-Provence. The major deadlines should be:

- Call for contributions - to be issued on mid August 2009,
- Author's deadline - September 30, 2009,
- Date of release - late October 2009-early November.

6.5.2 ESSAC brochure

B. Wolff-Boenisch described to the new ESSAC delegates the brochure "Leading and coordinating Ocean Drilling Science in Europe", which presents the tasks of ESSAC within ECORD. The brochure is currently under revision. The brochure will probably be published after the rotation of the ESSAC Office to Bremerhaven, Germany to announce the new contact persons and addresses.

C. Mével asked if would be useful that the Newsletter would be ready for INVEST. G. Camoin denied as at INVEST there would be a lot of different information material. The brochure would get lost within this flow of information.

5. Breakout sessions (ESSAC Subcommittees: E&O; Workshops, Communication and Vision)

The ESSAC Subcommittees E&O met to discuss the following topic:

- The ranking results of ECORD scholarship applications and the decision regarding the list of awardees.
- The format of the ECORD grants
- The recommendation regarding the 3 2010 ECORD Summer School applications.

ECORD scholarships grants

The results of the ranking of the ECORD scholarship grants were discussed. 10 delegates voted, however not all applied the same criteria, though those criteria had been formerly discussed. At the last ESSAC Meeting in Tuebingen in October 2008 the ESSAC delegates decided that the letter of motivation should be the most important document. The ESSAC delegates admitted that they would also look at the CV and potentially at the publication list. The subcommittee could not agree on a common procedure because each ESSAC delegate would weight differently for the different parts of the CVs.

The subcommittee agreed on the number of students and the cut off point (the first 9 three stars candidate plus the 3 candidates following on the ranking list (cut off point at 2.4). 12 students should receive the ECORD scholarships (8 for Urbino and 4 for Bremen). It was suggested that the money breakdown should be like the one in 2008, viz. was 500 € for German applicants for Bremen and Italian applications for Urbino, 800 € for non-German applicants for Bremen, 1200 € for non-Italian applicants for Urbino and 1500 € for Canadian applicants.

G. Camoin suggested to have a consistent system for every year. He thought to grant the award only to the 3 stars candidates as this procedure could be applied every year. In the case that grant money is not distributed, it could be carried over to the next year. X. Monteys preferred the option to give the grants to a maximum of candidates rather than to limit the number. He suggested increasing the total budget. R. James also thought that the ESSAC Chair could ask for additional money as an exceptional high number of applications were sent to the ESSAC Office. G. Camoin said that he would prefer not to increase the ESSAC budget constantly.

W. Piller thought that, as there would never be an objective ranking and that the problem would already start to define where quality starts and where it ends, the main selection criteria should be the limitation of the budget. He therefore suggested distributing the money to the best candidates till the money would be spent. J. McKenzie suggested granting an ECORD award to Iceland.

F. Abrantes had mixed feelings about the final result of the ranking, as good students, not necessarily the best, would get the grants. Mainly because those students would have the best possibilities to study and would have access to good infrastructure. She argued that the grants should also go to students who had less good study conditions. G. Camoin agreed and remembered the ESSAC delegates that 1 application should be given to an European non-ECORD country applicant. There was no relevant applications in 2009.

> ESSAC Action Item 0905-06: ESSAC decides to award the grants only to the 3 stars candidates.

Note: Because of the withdrawal of 2 three star candidates ESSAC decided via electronic mail to distribute the ECORD scholarships to the candidates next on the ranking list till the budget was consumed.

> ESSAC Action Item 0905-07: ESSAC decides to award exceptionally 1 ECORD scholarship grant to an Icelandic student, who CV was highly ranked.

In the future an ECORD scholarship grant will be given to a European non-ECORD country applicant, when this disposition can be applied.

ESSAC Consensus 0905-03: ESSAC decides to standardize the application, which will now consist of one single PDF-File including a letter of interest (max. 2 pages), a CV (plus publication list, if existing of max. 2 pages) and a standardized letter of support.

> ESSAC Action Item 0905-08: The ESSAC Office located in Bremerhaven will create a template for the letter of support for the ECORD Scholarships.

ECORD summer schools

X. Monteys explained that in 2010 all 3 schools would deal with paleoclimate issues. The Canadian application would focus on an interesting and timely topic and was a new candidate. However the costs to attend this school would be definitively higher than those of the other summer schools. All three summer schools would need additionally funding to be implemented. The number of funded schools and the money allocations should be decided at this meeting.

G. Camoin asked for subcommittee recommendation on how to distribute the ECORD summer school budget of 20.000 €. X. Monteys said that the subcommittee recommended that the ESSAC delegates should decide how to distribute the grants in the upcoming vote. In 2008 the total amount of 15.000 € had been distributed nearly equally to the Bremen and the Urbino Summer School. In 2009, the Urbino and the Bremen Summer Schools received 12.5 and 7.5 k€ respectively.

B. Wolff-Boenisch distributed the voting ballots. The ESSAC delegates voted during the break and B. Wolff-Boenisch compiled the results. The final results were announced during the meeting. The voting results for the ECORD Summer Schools are:

From 14 votes (Iceland and Norway were absent, L. Lourens from NL was deemed conflicted and did not vote), 2 votes went to the option "Urbino and the Canada", 1 vote to the option "Urbino and Bremen", 3 votes to the "Bremen and Canada" option and 8 votes to the option "all three Summer Schools". None voted for one of the three following options "only for Bremen", "only for Urbino" or "only for Canada". None abstained.

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| ESSAC Consensus 0905-04: ESSAC approves the voting results that all three ECORD Summer Schools 2009 should get granted. |
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| ESSAC Consensus 0905-05: ESSAC decides to breakdown the total amount of 20 k€ in 3 parts viz. 1/3 for each summer school. |
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ECORD Research Grants

X. Monteys summarised the discussions of the subcommittee regarding the ECORD Research Grants based on the discussion paper sent by B. Wolff-Boenisch in the forefront of the meeting.

The grants should cover analytical costs and travel support for studies on DSP, ODP or IODP material and/or data (ESSAC Action Item 0805-21 and ESSAC Consensus 0805-09).

The E&O subcommittee suggested granting only young researchers (Master and doctoral students as well as first-cycle Postdocs) working in ECORD countries only.

The grants can cover costs of travel and living expenses to visit a laboratory or material store, analytical costs and associated consumables.

The grants can cover costs of travel and living expenses to visit a laboratory or material store, analytical costs and associated consumables. The grants will not cover major capital purchases nor expenses to attend scientific conferences.

The subcommittee suggests that the grants should not be splitted in three grants, one to each theme of the Initial Science Plan.

Application

The application should take the form of a mini-proposal, i.e. including a detailed description of the proposed work, the research objective, the data or material to be worked on, and the expected value to be added, the project partnership, a CV, a supervisor's letter of support and a statement of access to facilities in host and home institution. The proposal should also include the total and requested costs, and the funds available from other sources. The template form for the application should be drafted by ESSAC office.

Ranking procedure

All ESSAC delegates should rank the applications, except in a case of conflict of interest.

The ESSAC office will compile the rankings and the E&O subcommittee will then check and award the grants.

Sum

The grant should not be fixed, but should be limited to 2000 €. The grants are paid at the start of the project (100%).

The subcommittee asked for 10.000 €. If the grant system will be a success there would be the possibility to ask the ECORD Council to augment the relevant budget.

Ranking criteria

Ranking should consider especially the following questions: Is the proposal a good idea? Is it achievable in the time and money available? Are the required facilities guaranteed? Is it strongly supported by his/her supervisor and host institution?

Monitoring

The proposed work is to be completed within 15 months of the grant award. A report is required at that stage, including a balanced budget, details on the data (all metadata) and new interpretations generated, and any resulting publications in press or preparation. The report, or a derivative of it, should be suitable for inclusion on the ESSAC/ECORD website, and in the newsletter.

Regarding the discussion to include also Master students in the list of potential applicants, L. Lourens asked who would write the proposal, the supervisor or the student (Master or PhD). X. Monteys replied that is why the template would be very useful. L. Lourens thought that for IODP material one need a supervisor. R. James thought that giving that money to a Master student would not be a good investment of the grant, the time would be too long. J. MCKenzie commented that at IAS only PhD students would get granted. M. Comas stated that the definition of a master student would differ in each country, but she that she would prefer to limit the grants to PhDs. X. Monteys thought that Master students should not excluded from the scratch. C. Mével argued that a Master student is not in the position to write a proposal at least in France. X. Monteys said that in Ireland a Master student would often start by this approach and then evolve. C. Mével thought that it should be the supervisor who would decide on the material. X. Monteys thought that it is a mini proposal and doable by a student. G. Camoin summarised the discussion by stating that ESSAC agreed to include Master students.

> ESSAC Action Item 0905-9: The ESSAC Office located in Bremerhaven will create a template for the letter of support for the ECORD grants.

7. Workshops, communication and vision

7.1 Conference and workshop reports

7.1.1 Acquiring high to ultra-high resolution geological records of past climate change by scientific drilling

R. Stein summarised the outcomes of the workshop "Acquiring high to ultra-high resolution geological records of past climate change by scientific drilling".

7.1.2 Ocean Drilling for Seismic Hazard in European Geosystems

G. Camoin reported about the workshop "Ocean Drilling for Seismic Hazard in European Geosystems."

7.1.3 Palaeoenvironmental Evolution of the Baltic Sea through the Last Glacial Cycle

R. Stein presented the discussion items of the workshop "Palaeoenvironmental Evolution of the Baltic Sea through the Last Glacial Cycle".

7.1.4 Cold Water Carbonate Reservoir Systems in Deep Environments (COCARDE)

A. Foubert presented the results of the workshop "Cold Water Carbonate Reservoir Systems in Deep Environments (COCARDE)".

7.1.5 EGU 2009 sessions

7.1.6 Beyond 2013 - the Future of European Scientific Drilling and 7.2 Subcommittee report, discussion and future actions

G. Camoin reported about the EGU Session "Beyond 2013 - The Future of European Scientific Drilling (SSP18/EG12/CL64/GMPV23/TS9.3, April 23, 09). His report is merged with the outcomes of the discussions of the the Workshop, Communication and Vision subcommittee.

The conveners: were G. Camoin and R. Stein. The steering committee consisted of W. Bac, Jan Behrmann, A. Camerlenghi, J. Erbacher, U. Harms, J. Kenter, H. Paelike and R. Schneider.

The oral programme included following presentations:

- J.H. Behrmann - A critical review of existing innovative science and drilling proposals within IODP
- R. Stein and B. Coakley - Scientific Drilling in the Arctic Ocean: A challenge for the next decades
- T. Johnson - IODP-ICDP Interactions: Comparing and contrasting the drilled paleoclimate records on the African continent with the ODP records offshore
- B. Ildefonse, N. Abe, P.B. Kelemen, H. Kumagai, D.A.H. Teagle, D.S. Wilson, and Mission Moho - Proponents Mission Moho Proponents - Rationale for drilling deep through the ocean crust into the upper mantle
- P. Favali and L. Beranzoli - Seafloor observatories, benefits for the Marine and Earth Sciences and synergies
- A. Camerlenghi - Addressing submarine geohazards through scientific drilling
- Key items discussed were: (1) The future of ECORD and IODP, (2) New research initiatives and emerging fields in scientific drilling, (3) Relationships IODP/other programs and IODP/industry and (4) New technologies and the Mission Specific Platform approach.

Session 1: Future of ECORD and IODP - Chairs: Erbacher, Franklin

Session 1 dealt with following questions and discussion items: **1. "Should the science be broader than that which can be accomplished by just drilling?"** The ESSAC delegates discussed this session in detail. They agreed on both that the science should be broader than that which can be accomplished by just drilling and that the program should be science led. It was also agreed that concrete links between IODP and ICDP should be established notably in specific projects (land-ocean interactions, etc.). The mission concept should be kept by selecting "big" projects whether drilling projects, observatories or in-situ laboratories initiatives.

Topic 2. **"Is the ECORD structure fit-for-purpose?"** and Topic 3 **"What is the role of ECORD in a future programme?"** included discussion about the aim to be a major partner in the new program, the need for strengthening the ECORD consortium. It was

agreed that the ECORD structure would fit for the purpose and that ECORD should be a part of the New Drilling Program with the same structure. A key issue is to investigate mechanisms to support post-cruise research for all member countries. ECORD should be a major partner in the new program, and in parallel keep national contributions in Europe at the current level as a minimum. However the aim should be at least double the contributions through other means (for example industry, EC, linking through projects with other programmes, national foundations, etc), which have to be explored. The question **"What should be the organisational structure of IODP?"** treated by topic 4 was discussed. There was an agreement that a new streamlined structure (SAS and Management) was needed. As a first approach the SAS should look at ICDP structure and adopt the ICDP workshop concept, viz. the proposal preparation via a workshop. The overall management should be a "limited management with limited funding".

Regarding the question **"What should be the structure of the New Science Plan?"** the participants thought that the program must emphasise "the Big Picture" of science relevant to society and that it should be assumed that all types of drilling platform would be available for the New Science Plan. The implementation plan should be developed with co-funding options.

The outcomes of the discussion of the last question of this session **"What should we do with existing proposals?"** were to reject more "brutal" proposals, that proposals should be resubmitted, that mentoring should only be applied for new topics via a workshop approach (mission concept), that the program and the proposals should start afresh, with a new system before 2011 and ready for 2013, that the start of the new drilling program would need guidelines, that highly ranked proposals in IODP should be encouraged to be resubmitted and that those proposals should address the new science plan in the streamlined system. There was a consensus about the fact that more work should be done before the pre-proposal submission.

It was noted, that in the first phase of IODP, major expeditions were focussed on Paleoenvironment/Paleoceanography and Solid Earth topics, but that no deep biosphere project had been implemented. For the final phase of IODP deep-biosphere project should have highest priority.

There would be enough Tier1 /Tier2 proposals in the system for the final stage of IODP. Therefore SPC should inform proponents that their/other proposals would unlikely be drilled within IODP. Additionally, SPC should encourage the submission of revised existing proposals or new pre-proposals, which address MSP.

Suggestions

Suggestions, which were made during this session were to document potential missions opportunities in the new science plan and to describe how to prioritise the relevant science topics in a separate implementation plan. It was suggested to name AURORA BOREALIS as a potential Arctic platform in the new science plan. A continuous operation was considered important (platform specific) and that observatories should be included in the new science plan. Partnering with co-funders including industry should be mentioned in the new science plan or at least promoted.

Challenges

The challenges had been discussed, too. The science would drive a programme beyond 2013, as science would ultimately define what was needed in terms of platforms and technology. In addition, the management structure should be capable of delivering the science in the best way possible. Individual funding agencies in each country would decide whether or not to take part and that the most effective way for European countries to contribute would be likely to be through a continuation of ECORD.

Session 2a

In session 2a "Emerging fields/new topics (sub session A - Chairs: Bach, Behrmann, Teagle)" a list with topics was established. The list was accepted by the ESSAC delegates and only some details were added. The list consists of following topics:

- Planetary Cycles ("Serpentine sea" - hydrogen, methane, abiotic organic synthesis, integrated atmosphere-ocean-crust-mantle approach, climate-tectonics and oceanic intraplate processes; lithosphere)
- Sustainable use of seafloor as a resource (viz. Gas hydrates/permafrost methane, deep sea mining, CO₂ sequestration, abiotic hydrocarbons).
- Geohazards (for example lingering processes such as sea-level changes, methane release in Arctic shelf or catastrophic processes such as slides, earthquakes, volcanic eruptions/flank collapse).
- Extreme Events dealt with impacts and super earthquakes
- Experiments with the seafloor discussed perturbation experiments, in situ/long-term experiments (fluid sampling, seismicity or incubations experiments).
- Observatories

The topic "quantifying climate change: determining tipping points and gradualism in Earth's history dealt with the generation of quantitative records of relevant global biogeochemical cycles and related biotic and climate response (viz. high carb-low carb diets, reconstructing carbon cycling and sequestration), dynamics of Polar regions and climate impacts, temporal and spatial evidence of Darwin in the Ocean, reconstructing biotic evolution and biodiversity and the human evolution and Africa (for example the links to increased amplitude of climate variability in the past).

Session 2b: Emerging fields/new topics (chairs: McKenzie, Brinkhuis)

In the topic "dynamics and role of seafloor biotic and abiotic systems items a list with topics was established. The list was accepted by the ESSAC delegates and only some details were added. The list consists of following topics:

In the topic quantifying climate/ocean change: determining tipping points and gradualism in earth's history:

Generating quantitative records of relevant global biogeochemical cycles and related biotic and climate response

- High Carb-Low Carb diets: Reconstructing carbon cycling and sequestration
- Dynamics of Polar regions and climate impacts
- Temporal and Spatial evidence of Darwin in the Ocean; reconstructing biotic evolution, biomineralisation, and biodiversity
- Human Evolution and Climate Change
- Ocean acidification
- Dynamics and Role of Seafloor biotic and abiotic systems
- Microbiology, (deep) subsurface fluids & biogeochemical cycling; (palaeo)ecologic monitoring
- New insights in controls on carbonate factories (cold/warm) past and present, and relationships to the carbon cycle
- Controls and feedbacks of terrestrial and marine methane emissions
- Critical monitoring and evaluation of the (dynamics of the) storage of greenhouse gases

Session 3 Relationships IODP-other programs (e.g. ICDP, IMAGES, ANDRILL, PAGES, Observatories) and IODP-industry

Session 3 dealt with the relationships of IODP and other programs (e.g. ICDP, IMAGES, ANDRILL, PAGES and Observatories) and IODP and the industry. During the workshop topics were identified and discussed by the ESSAC delegates.

The future structure and management of IODP plus the respective policies in funding agencies and other stakeholders should have high permeability and great flexibility, as well as being receptive, responsive, viz. being an open system. IODP should allow for flexible joint technological infrastructure (tools, personnel, exchange of different platforms, knowledge transfer as well as engineering capacity and development). The Mission-specific operations should be included in future ocean drilling to ensure involvement with other programs and to allow for land-ocean, shelf-slope, high-risk areas drilling. IODP should be able to provide funding or in-kind contributions to multi-partner projects. The advisory, planning, and decision structure of the future IODP should enable multi-platform drilling targets (incl. other platforms, observatories). Last, but not least IODP structure should explicitly enable external links (port of entry / interface) to allow development and implementation of joint projects, missions, and/or expeditions.

Session 4 "new technologies"

In the session 4 "new technologies" existing technologies currently not used in IODP were mentioned. Current restriction on MSP expeditions were discussed, such as there would be any science that could be done more efficiently or flexibly with another vessel (not just in shallow/icy seas). Or if MSPs would be better suited as 'test grounds' for new developments. Or if MSPs could offer a better route for development and testing of new tools in IODP.

In the topic of integrate drilling and complementary activities geophysical surveys and long-term monitoring was discussed. Also the maintenance of downhole observatories without need of a drill ship.

As final topic it was said, that there would be the need to improve the financial, managerial and technical collaborations between stakeholders, such as the ocean observatories initiatives in Europe, ICDP, SAON, industry, ERICON and ANDRILL. The need of sharing experience, personnel, equipment, calibration, joint purchases would be necessary.

The list of existing technologies is as follows:

- Shallow penetration drilling (sea floor rock drills, 1-100 mbsf)
- Thin-wall samplers (currently used in industry) (preserves core quality)
- In-situ CPT (cone penetration testing) (geotechnics)
- In-situ geotechnical sampling and testing (overcomes core expansion effects)
- Instruments for downhole observatories: inclinometers / strain meters / temperature / pressure / fluid flow / seismometers / magnetometers / gravimeters / accelerometers instruments chosen on a project-by-project basis
- Sensors in casing
- Logging-while-drilling or other real-time data transfer (e.g. intelligent pipes)

It was said that technologies would be need to be develop or built such as

- Drilling in sea ice (AURORA BOREALIS)
- Develop sea bed drills to handle new tools (logging/LWD/imaging/sampling/fluid sampling/monitoring)
- Incorporate industry-standard diameter drill string to be able to use state-of-the-art logging tools

- Mud return system (to increase borehole stability, under development)
- Sea bed-based mud circulation system (overcomes riser depth limitations & cost)
- Improving coring, stability and recovery in hard/soft (e.g., chert/chalk) substrate/deep crust/high temp.
- Long-term monitoring at high temperatures/corrosive environments
- Multiple downhole instruments (e.g. thermistors for heat flow measurements)
- Fluid sensors for geochemistry for downhole observatories
- Long-term fluid sampling
- Improvement of data transfer methods/rates for downhole observatories
- In-situ incubator for microbiology
- Near sea bed logging
- All items on the EDP's development list!

Timeline

After the workshop, the draft summary of the breakout group discussions will be ready in May 20th. This draft summary will then be open for comments till June 7th. The final working document will be issued between June 8th and August 15th. In late August the final working document will be posted on ECORD, the ESSAC and the INVEST web sites. In early October the publication of the brochure is envisaged.

The subcommittee discussed also the topics:

1. The preparation of the discussion on how to support 3D-site surveys for European-led proposals for the next ECORD Council meeting.
2. The preparation of a letter of support for the continuation of IODP
3. The preparation of the INVEST Conference: discussion on the outcomes of the Workshop "Beyond 2013" and of the CHART e-workshop.

Regarding item 1 the reason for discussion this item was that an ECORD scientist needed 3D survey for a proposal and asked its funding agency for funding the 3 € Mio. project. The finding of 3D surveys needed for using Chikyu; costs 5 Mill Euros. In this context the ESSAC Workshops, Communication and Vision subcommittee recommended that,

- Funding would be needed from outside IODP and if funding from industry for example would be suitable
- The theme should be discussed by the new ECORD Industry Liaison Panel
- It has to be checked, if all riser drilling need 3D site survey
- The topic should be included in the discussions in the INVEST breakout session on technology
- This issue would be a general point of discussion for the future program for example if in the future program there would be a possibility for funding site survey from IODP money and if this approach would be good or not.

Regarding the preparation of a letter of support for the continuation of IODP (ESSAC Consensus 0810-05: ESSAC will prepare a letter of support for the continuation of IODP, after the EGU 2009 Session, and ESSAC Action Item 0810-20: The draft of the letter of support for the continuation of IODP will be distributed to all ESSAC delegates. After final drafting the letter of support will be distributed widely in the community and sent to all ECORD funding agencies and stakeholders), it was common opinion that the Woods Hole scientists letter was a good example. The European analogue should contain the major achievements of scientific drilling (DSDP-ODP-IODP), the European contribution as well as the issue that key questions in Earth science could only be answered by scientific (ocean) drilling. It was agreed that the letter should be prepared only after the INVEST Conference,

in order to include the latest results from the INVEST conference. This letter should be discussed/prepared directly after INVEST via email by the WCV subcommittee and presented and discussed at the next ESSAC Meeting. The final version would then be accepted by the ESSAC delegates at the same meeting.

Regarding topic 2 concerning the preparation of the INVEST Conference and the discussion on the outcomes of the Workshop "Beyond 2013" and of the CHART e-workshop following comments have been done:

The major objective of the workshop "Beyond 2013 - The Future of European Scientific Drilling" was to sharpen the European perspectives regarding the future of the European scientific drilling research and to prepare the INVEST Conference which was the first step towards the IODP renewal. This workshop was therefore of prime importance to give weight to the European propositions in the program renewal processes, both on science, as well as technology and management.

8. Next meetings

ESSAC #13, October 2009

The next meeting will take place in Oulu Finland. K. Strand presented the location and invited all the delegates to take part at the 13th ESSAC Meeting.

> **ESSAC Action Item 0905-10:** The ESSAC Office will make a poll in doodle to determine the dates of the 12th ESSAC Meeting, which will be held in Finland, Finland.

ESSAC #14, May 2010, location

For the 14th ESSAC meeting there are currently 2 propositions: Leuven, Belgium or Tromsø or Svalbard in Norway

10. Any Other Business

No other items were discussed.