

## MagellanPlus Workshop

# Navigating the IODP Proposal System

*A 3 day Workshop for PhD and Early Career Researchers*

**24th-26th September 2018**

National Oceanography Centre Southampton  
University of Southampton

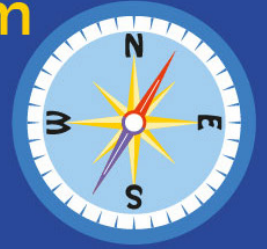


photo:IODP JRSO

Convener and Host: Professor Damon A.H. Teagle

Co-Conveners: Prof Wolfgang Bach (MARUM - Bremen), Dr Rebecca Bell (Imperial College),  
Dr Rosalind Coggon (Southampton), Dr Benoit Ildefonse (CRNS Montpellier), Prof Lisa McNeill  
(Southampton), Prof Heiko Pälike (MARUM - Bremen), Prof Paul Wilson (Southampton).

## **ECORD/ICDP Magellan Plus Workshop Series**

### **Navigating the IODP Proposal System A 3 day Workshop for PhD and Early Career Researchers**

National Oceanography Centre Southampton  
University of Southampton  
24<sup>th</sup>-26<sup>th</sup> September 2018

#### **WORKSHOP REPORT**

**Convener and Host:** Professor Damon A.H. Teagle (Southampton, UK)  
**Co-Conveners:** Prof Wolfgang Bach (MARUM, Germany)  
Dr Rebecca Bell (Imperial College London, UK)  
Dr Rosalind Coggon (Southampton, UK)  
Dr Benoit Ildefonse (Montpellier, France)  
Prof Lisa McNeill (Southampton, UK)  
Prof Heiko Palike (MARUM, Germany)  
Prof Paul Wilson (Southampton, UK)

#### **Summary:**

2018 marked 50 years since Deep Sea Drilling Project (DSDP) Leg 1 sailed from Orange, Texas to Hoboken, New Jersey and drilled 7 sites in the Gulf of Mexico and Atlantic Ocean – initiating 5 decades of international co-operation in scientific ocean drilling – arguably, the most successful, enduring international science collaboration. To celebrate this anniversary and to equip the next generation of European scientific ocean drilling leaders, we held a 3 day workshop (24<sup>th</sup>-26<sup>th</sup> September 2018, University of Southampton) to introduce early career and PhD researchers to the opportunities, capabilities and processes of the International Ocean Discovery Program (IODP), and the ways to get involved.

Scientific ocean drilling offers scientists unique access to drillships and bespoke platforms, each with un-matched scientific capabilities. Participation in ocean drilling is a career-building opportunity, with the scientific immersion integral to IODP expeditions leading to enduring long-term research relationships. However, the system can appear complex and distant. Through mentoring and team preparation of drilling proposals, this workshop aimed to dispel the complexities and mysteries of ocean drilling, and introduce early career researchers (ECRs) to the opportunities to participate. The workshop was attended by 39 ECRs from 21 institutes. The workshop comprised a series of informative introductory lectures, by some of Europe's most experienced ocean drilling scientists, interspersed with group writing exercises. The early career delegates worked together in teams to develop hypothetical drilling proposals, which were presented to a Science Evaluation Panel for feedback with the eventual selection of a winning team. All delegates also had the opportunity to present their science as posters and short "3 minute thesis"-style introductory pitches.

The lecture series included presentations on topical science challenges of ocean drilling, the current science plan, the structure of the International Ocean Discovery Program (including ECORD, ESO, ESSAC, JRSO, Chikyu, Facilities Boards), the science evaluation process, different drilling platforms, approaches and technologies, wireline logging, observatory installations, site-survey requirements, environment and pollution considerations, sampling, curation and data protocols, and amphibious IODP-ICDP

proposals. These technical lectures were punctuated by high-level state of the art science lectures highlighting recent achievements in scientific ocean drilling. In addition to the workshop proponents, Prof Keir Becker (U. Miami), Dr Steve Bohaty, Dr Chuang Xuan (both Southampton), and Dr Erwan Le Ber (Leicester, ESO-EPC) provided lectures and mentoring to the early career teams.

For the team project groups of 6 to 8 early career and PhD researchers worked in collaboration with experienced science mentors to formulate a hypothetical drilling proposal. These were then presented to the wider group and evaluated by an expert panel. This exercise followed an iterative approach, where initial ideas were pitched at an early 'Pre-proposal' stage for feedback and guidance, with sufficient time for the teams to refine their ideas for the main 'Full proposal' presentation.

The course leaders were impressed with how well the early career researchers engaged with the group exercise to produce six compelling 'full' drilling proposals. We hope that following the workshop they not only have a much better understanding of IODP opportunities and how to produce successful drilling proposals, but they will also continue to benefit from the peer-networks and connections with the course mentors established during the workshop.

The location and timing of this workshop were selected to encourage and facilitate participants' attendance of the UK-IODP "Celebrating 50 years of Scientific Ocean Drilling" meeting at the Natural History Museum, London (27<sup>th</sup> & 28<sup>th</sup> September), immediately following the workshop. This meeting included a stellar cast of international leaders from the ocean drilling community (e.g., Raymo, Becker, Humphris), as well as further opportunities for early career researchers to present their research.

Contact: Prof Damon Teagle ([Damon.Teagle@southampton.ac.uk](mailto:Damon.Teagle@southampton.ac.uk))



The workshop conveners acknowledge the generous support of the ECORD-ICDP Magellan+ workshop program as well as the NERC UK-IODP science support programme.

**ECORD/ICDP Magellan Plus Workshop Series Programme**

**Navigating the IODP Proposal System - A 3 day Workshop for PhD and Early Career Researchers**

**WORKSHOP REPORT**

**1. PARTICIPANTS:**

**1.1 Course Leaders:**

<b>Name:</b>	<b>Organisation:</b>	<b>(initials in schedule)</b>
Prof. Damon Teagle	Southampton	DT
Prof. Lisa McNeill	Southampton	LM
Prof. Paul Wilson	Southampton	PW
Dr Rosalind Coggon	Southampton	RC
Dr Steve Bohaty	Southampton	SB
Dr Chuang Xuan	Southampton	XC
Dr Rebecca Bell	Imperial	RB
Dr Erwan Le Ber	Leicester	EIB
Prof. Benoit Ildefonse	Montpellier	BI
Prof. Wolfgang Bach	Marum, Bremen	WB
Prof. Heiko Palike	Marum, Bremen	HP
Prof. Keir Becker	Miami, USA	KB

**Group Mentors:**

**Group 1:** Lisa McNeill

**Group 2:** Wolfgang Bach

**Group 3:** Paul Wilson

**Group 4:** Rosalind Coggon

**Group 5:** Heiko Palike

**Group 6:** Benoit Ildefonse

**'Rotating' IODP Specialists:**

**Site Survey:** Rebecca Bell/Lisa McNeill

**Wireline logging:** Erwan Le Ber

**Drilling platforms:** Damon Teagle/Benoit Ildefonse/Lisa McNeill

**Physical Properties:** Benoit Ildefonse

**Paleomagnetism:** Chuang Xuan

**Geochemistry:** Damon Teagle/Rosalind Coggon/Paul Wilson/Wolfgang Bach

**Environment & Pollution:** Damon Teagle/Benoit Ildefonse/Lisa McNeill

**Microbiology:** Wolfgang Bach

**1.2 Early Career Researchers:**

<b>Title</b>	<b>Name</b>	<b>Organisation</b>	<b>Job</b>	<b>Email</b>
Mr	Robert Allen	Imperial College London (UK)	PhD Student	r.allen16@imperial.ac.uk
Dr	Steve Banham	Imperial College London (UK)	Research Fellow	s.banham@imperial.ac.uk
Miss	Yasmin Bokhari Friberg	The Open University (UK)	PhD Student	yasmin.bokhari-friberg@open.ac.uk
Dr	Anieke Brombacher	National Oceanography Centre (UK)	Postdoctoral Researcher	anieke.brombacher@soton.ac.uk
Mr	Elliot Carter	Univeresity of Manchester (UK)	Postgraduate Research Student	elliott.carter@manchester.ac.uk
Mr	Juan-Pablo Castaneda	University of Birmingham (UK)	Doctoral Researcher	jpc672@bham.ac.uk
Dr	Mohammed Chaanda	Plymouth University (UK)	Early Career Researcher	mohammed.chaanda@plymouth.ac.uk
Mr	Kajetan Chrapkiewicz	Imperial College London (UK)	PhD student	k.chrapkiewicz17@imperial.ac.uk
Miss	Sophie Cox	Cardiff University (UK)	PhD student	coxs8@cardiff.ac.uk
Dr	Giacomo Dalla Valle	CNR of Italy (ITALY)	Geologist	giacomo.dalla.valle@bo.ismar.cnr.it
Dr	Anna Joy Drury	MARUM, University of Bremen (Germany)	Postdoctoral researcher	ajdrury@marum.de
Mr	Aitalokhai Edegbai	Kiel University (Germany)	PhD Student	sungw612@mail.uni-kiel.de
Dr	Adele Garzarella	Department InGeo - University of Chieti (Italy)	Researcher	a.garzarella@unich.it
MSC	Marta Grabowska	University of Plymouth (UK)	PhD student	marta.grabowska11@yahoo.com
Miss	Emmeline Gray	Open University (UK)	PhD Student	emmeline.gray@btinternet.com
Dr	James Hunt	National Oceanography Centre (UK)	Senior Researcher	james.hunt@noc.ac.uk
Dr.	Kim Jakob	Institute of Earth Sciences, Heidelberg University (Germany)	Postdoctoral Researcher	kim.jakob@geow.uni-heidelberg.de
Mr	Max Jansen	Cardiff University (UK)	PhD student	jansenmn@cardiff.ac.uk
Miss	Amy Jewell	University of Southampton (UK)	PhD Student	amj1g13@soton.ac.uk
Ms	Amy Jones	University of Birmingham (UK)	PhD Student	apj527@bham.ac.uk
Miss	Sarah Lucas	University of Oxford (UK)	PhD Student	sarah.lucas@linacre.ox.ac.uk
Dr	Gaíl Lymer	University of Birmingham (UK)	Postdoctoral Researcher	g.lymer@bham.ac.uk

**MagellanPlus ECR proposal writing workshop (Sept 2018, Southampton): REPORT**

<b>Title</b>	<b>Name</b>	<b>Organisation</b>	<b>Job</b>	<b>Email</b>
Dr	Walter Menapace	MARUM -University of Bremen (Germany)	Postdoctoral Researcher	walter.menapace@uni-bremen.de
Mr	Marcelo Mota	University of Birmingham (UK)	PhD Student	mal546@bham.ac.uk
Mr	Celestine Nwojiji	University Of Liverpool (UK)	PhD student	celestine.nwojiji@liverpool.ac.uk
Mr	Jack Oughton	University of Exeter (UK)	PhD Student	jack.oughton@hotmail.co.uk
Dr	Konstantinos Panagiotopoulos	University of Cologne (Germany)	DFG Research Fellow	panagiotopoulos.k@uni-koeln.de
Dr	Andy Parsons	University of Oxford (UK)	Post Doctoral Research Associate	ajparsons87@gmail.com
Mr.	Simone Pujatti	University of Calgary (Canada)	PhD Student	pujatti.simone@ucalgary.ca
Msc	Lea Rausch	University of Bucharest (Romania)	Marie-Curie Early Stage Researcher	lean.rausch@gmail.com
Ms	Libby Robinson	University of Southampton (UK)	PhD Student	ejr1n17@soton.ac.uk
Dr.	Mariem Saavedra-Pellitero	University of Bremen (Germany)	Postdoctoral researcher	msaavedr@uni-bremen.de
DR.	Margarita Segou	British Geological Survey (UK)	Researcher	msegou@bgs.ac.uk
Dr	Esther Sumner	University of Southampton (UK)	Lecturer	e.j.sumner@soton.ac.uk
Mr.	Leonardo Tamborrino	MARUM -University of Bremen (Germany)	PhD student	ltamborrino@marum.de
Miss	Victoria Taylor	University of Southampton (UK)	PhD student	vet1g12@soton.ac.uk
Dr	Tim van Peer	University of Southampton (UK)	Research Fellow	t.e.vanpeer@soton.ac.uk
Mr	Adam Woodhouse	University of Leeds (UK)	Doctoral Researcher	eadw@leeds.ac.uk
Mr	Zhongwei Zhao	University of Manchester (UK)	PhD Student	zhongwei.zhao@manchester.ac.uk

## 2. WORKSHOP SCHEDULE:

### Key:

Plenary Sessions
Group Activities
Refreshments / Meals

### DAY 1: MONDAY 24TH SEPTEMBER 2018

08:30	Registration opens NOCS
09:00	Welcome, H&S, Introductions - <i>DT and hosts</i> : Introduction of mentors Introduction from participants 2 min Introduction to the workshop, its purposes and aims; subdivision into groups - <i>DT</i>
10:30	Morning Coffee
11:00	Introduction to Scientific Ocean Drilling and IODP; <i>DT</i> , Science Challenges of the IODP Science Plan - <i>DT and HP</i> Science Evaluation Process - <i>LM, RB, PW</i> Capabilities of platforms - <i>HP (JR), BI (Chikyu) LM (MSP)</i> Introduction to Group Exercise - <i>DT</i>
12:30	Lunch with Posters - inc. 3 minute poster pitches
14:00	1st Group Session of teams and mentors
15:00	Site survey requirements - <i>Rebecca Bell, Lisa McNeill</i>
15:30	Wireline logging capabilities - <i>Erwan Le Ber</i>
16:00	Afternoon Coffee
16:30	2nd Group Session
18:00	Keynote Lectures: Sediment cores to climate records - <i>Heiko Palike</i>
18:30	MoHole to the Mantle - <i>Benoit Ildefonse</i>
19:00	pre-dinner drink: Caskaway - Oxford Street
20:00	Workshop Dinner: Oxford Brassiere, Oxford Street

### DAY 2: TUESDAY 25TH SEPTEMBER 2018

09:00	Keynote Lectures: Transects of crustal aging - <i>Rosalind Coggon</i>
09:30	Microbial activity in ocean crust - <i>Wolfgang Bach</i>
10:15	Morning Coffee
10:45	3rd Group Session Pre-proposal preparation
12:30	Lunch with Posters - inc. 3 minute poster pitches
14:00	Pre-proposal Presentations 10 minutes with 5 min feedback
16:15	Afternoon Coffee
16:45	4th Group Session - Full Proposal Preparation
18:00	Keynote Lectures: The Great Sumatran Earthquake - <i>Lisa McNeill</i>
18:30	Antarctic Challenges - <i>Steve Bohaty</i>

<b>DAY 3: WEDNESDAY 26TH SEPTEMBER 2018</b>	
09:00	<b>Further capabilities of Scientific Ocean Drilling:</b> <b>Paleomagnetism in Ocean drilling - Xuan Chang</b> <b>Drilling Active Ore Formation - Damon Teagle</b> <b>Seafloor Observatories - Keir Becker</b>
10:15	<b>Morning Coffee</b>
10:45	<b>5th Group Session - Full Proposal Preparation</b>
12:30	<b>Lunch with Posters - inc. 3 minute poster pitches</b>
14:00	<b>Proposal Presentations</b> <b>Three Groups to present in Random Order</b> <b>25 mins + 5 mins Q&amp;A</b>
15:30	<b>Afternoon Coffee</b>
16:00	<b>Proposal Presentations</b> <b>Three Groups to present in Random Order</b> <b>25 mins + 5 mins Q&amp;A</b>
17:15	<b>Feedback and Awards</b> <b>Refreshments</b>
18:30	

### **3. WORKSHOP REPORT**

#### **3.1 Introduction**

The workshop combined a series of informative lectures on IODP operations and processes, and state of the art drilling activities with a group proposal writing exercise. Groups were pre-selected using information supplied in participants' applications to attend, taking into account geographic or scientific areas of interest, but ensuring the teams were diverse with regards members' expertise, career-stage, institutions and nationalities. Note that the participants were given the option to change teams following the 'pre-proposal' presentations if there was another proposal that they were more interested in pursuing (and that team welcomed them!). One delegate chose to change teams.

**Course Leaders:** This workshop was led by a highly engaged team of experienced researchers with very active involvement in all aspects of scientific ocean drilling, be they as co-chief scientists from JR, MSP and Chikyu expeditions, successful and active proposal proponents, and experienced members of the Science Evaluation Panels (science, site survey, EPSP), JRSO and Chikyu Facility Boards, experts in wireline logging and seafloor observatories, scientific expertise across the spectrum of IODP science, authors of the current science plan and co-conveners of the preliminary INVEST meeting and other contributing meetings (Appendix 1).

#### **3.2 Science Presentations**

The workshop lecture series included presentations on the capabilities, structure and processes of IODP, the scientific and technological challenges of ocean drilling, and highlights from recent expeditions. Day 1 talks focused on providing participants with a comprehensive introduction to ocean drilling, to facilitate the group proposal writing exercise, including: the structure of IODP (including ECORD, ESO, ESSAC, JRSO, Chikyu, Facilities Boards); the science challenges of the current IODP Science Plan; the different drilling platforms, drilling approaches and technologies, including wireline logging; the IODP proposal system and the science evaluation process; and Site Survey data requirements and acquisition. Day 1 concluded with two stimulating keynote



science lectures, on reconstructing climate records from sediment cores and the ongoing efforts to drill to the mantle. We hosted a workshop dinner in the evening of Day 1 (Monday), which coincidentally was also the birthday of three of the conveners. The majority of Day 2 was devoted to the group proposal writing exercise, book ended by scientific keynote talks on hydrothermal alteration and microbial activity of the aging ocean crust, IODP investigations of recent catastrophic Tsunamigenic earthquakes, and the challenges and ongoing efforts to drill in Antarctic waters. Day 3 began with the final science lectures of the workshop, on the further capabilities of scientific ocean drilling, including paleomagnetic approaches, drilling in active ore forming environments, and the installation of state of the art seafloor observatories – which several groups subsequently included in operation plans of their full proposals.

### **3.3 Group Proposal Writing Exercise**

**Instructions:** The delegates were given the following instructions for the proposal writing exercise:

<b>GROUP PROPOSAL WRITING EXERCISE:</b>
<b>Objective:</b> Groups of 6-8 will work with senior scientists to formulate a mock IODP drilling proposal, which will then be presented to the group.
<b>Specifics:</b> <ul style="list-style-type: none"><li>• Groups of 6-8 will be pre-selected to ensure a spread of expertise and institutions between groups. You will be informed of your groups when you arrive at the meeting.</li><li>• <b>Everyone should come to the meeting with a drilling target in mind</b></li><li>• The first step of the exercise will be for the group to adopt one member's general plan. This decision should be made before the start of the second day. Remember that IODP expeditions are multi-disciplinary in nature, so there is a good chance that several members' scientific objectives could be incorporated.</li><li>• The presentation will be a Power Point presentation in the style that has previously been given to the Operations Task Force (OTF). This means summarizing your scientific question(s), specifying you're scientific goals (potential and anticipated results), and describing the means (site-surveys, platform, instruments, sampling, staff (scientific expertise) requirements) you require to accomplish your goals. While it may not be possible for each group member to present, try to arrange different people to present different aspects of your proposal.</li></ul>
<b>Recommendations:</b> <ul style="list-style-type: none"><li>• First and foremost, choose a compelling science question that can only be addressed through scientific drilling.</li><li>• Bring a laptop. You'll have the internet to help you on your way.</li><li>• What are the site-survey requirements at your site(s)? Does data already exist?</li><li>• Are there major drilling hazards or environmental risks at your site? In this case you should generally focus on the science rather than hazards.</li><li>• Which platform is required for your proposal?</li><li>• Will you require any specific or novel coring/engineering solutions?</li><li>• Don't present a one-dimensional case; prepare a multidisciplinary proposal. What secondary and tertiary scientific goals can be accomplished without interfering with you accomplishing your primary goal?</li><li>• How does your proposed science fit with the challenges in the new science plan for scientific ocean drilling "Illuminating Earth's Past, Present and Future"</li></ul>
<b>Recommended Reading.</b> <ul style="list-style-type: none"><li>• In last year's UKIODP Newsletter, Heiko Palike (NOCS) wrote an excellent primer describing the IODP proposal process: <a href="http://www.bgs.ac.uk/iodp/docs/UKIODP_36.pdf">http://www.bgs.ac.uk/iodp/docs/UKIODP_36.pdf</a></li><li>• New Science plan for 2013 to 2023 - <a href="http://www.iodp.org/Science-Plan-for-2013-2023">http://www.iodp.org/Science-Plan-for-2013-2023</a></li></ul>

**Groups:** The delegates were divided into six groups, on the basis of the information supplied in their applications, with mentors allocated to reflect the shared interest of the groups. It was interesting to see that in many cases the proposals developed by the groups were quite far-removed from their originally specified interests.

**GROUP 1:**

**Mentor:** Lisa McNeill

**Common Interest:** 'Monsoons'

Yasmin Bokhari Friberg

Emmeline Gray

Jack Oughton

Konstantinos Panagiotopoulos

Mariem Saavedra-Pellitero

Victoria Taylor

Tim van Peer

**GROUP 2:**

**Mentor:** Wolfgang Bach **Common Interest:** 'Subduction Processes'

Robert Allen

Kajetan Chrapkiewicz

James Hunt

Bailey Lathrop

Walter Menapace

Margarita Segou

**GROUP 3:**

**Mentor:** Paul Wilson

**Common Interest:** 'Sedimentary Processes'

Steve Banham

Giacomo Dalla Valle

Aitalokhai Edegbai

Gaíl Lymer

Esther Sumner

Zhongwei Zhao

**GROUP 4:**

**Mentor:** Rosalind Coggon **Common Interest:** 'The Atlantic'

Anna Joy Drury

Adele Garzarella

Amy Jewell

Amy Jones

Marcelo Mota

Lea Rausch

Leonardo Tamborrino

**GROUP 5:**

**Mentor:** Heiko Palike

**Common Interest:** 'High latitudes & Climate'

Anieke Brombacher

Juan-Pablo Castaneda

Kim Jakob

Sarah Lucas

Celestine Nwojji

Libby Robinson

Adam Woodhouse

**GROUP 6:**

**Mentor:** Benoit Ildefonse

**Common Interest:** 'Crustal drilling'

Elliot Carter

Sophie Cox

Marta Grabowska

Max Jansen

Andy Parsons

Simone Pujatti

**ECR Drilling Proposals and Outcome:**

The groups used the initial break out session on Day 1 to get to know each other, their scientific areas of interest and any previous involvement with IODP. They brainstormed ideas for potential drilling proposals, having been asked to all come to the workshop with at least one potential drilling target in mind, seeking advice from their mentors on what was feasible during a drilling expedition, what had already been achieved in previous expeditions, and how their ideas fit with the science plan. On Day 2 the groups prepared 'Pre-proposals' for their drilling projects – 10 minute powerpoint presentations outlining the scientific motivation, geographic areas, science targets, drilling operations, site survey data availability/needs and expected outcomes of their proposed expeditions,

with all group members were required to present a section of the Pre-proposal. The groups pitched their proposals to the entire group, receiving immediate feedback from the Science Evaluation Panel (all course leaders) including suggestions to help them develop their ideas into full proposals.

During the subsequent breakout sessions on Days 2 and 3 the groups refined their proposals, to ensure:

- the scientific objectives were compelling and could be addressed by drilling.
- the proposed drilling targets were appropriate.
- they had considered the site-survey requirements and how any necessary data could be acquired.
- the proposed platform(s) were appropriate and they had considered whether any specific or novel coring/engineering solutions were needed.
- the feasibility of the proposed drilling operations, including giving consideration to transit and operational timings, any potential drilling hazards or environmental risks at the proposed sites, and suitable contingency operational plans.
- inclusion of secondary scientific goals that could be accomplished without compromising the primary goals.
- they demonstrated how the proposed drilling addresses the challenges of the IODP Science Plan 2013-2023.

The course mentors provided advice on how to check the availability of existing open source or industry site survey data and the options for collecting further data, the inclusion of wireline logging operations, and the installation of borehole observatories. The groups used the IODP coring time estimator excel sheet (available online: [http://iodp.tamu.edu/participants/coring\\_estimator.html](http://iodp.tamu.edu/participants/coring_estimator.html)) to ensure the proposed operations were feasible.



*- Group 1 preparing their proposal presentation with their team mentor, Lisa McNeill.*

The groups delivered their final proposals in 25 minute Powerpoint presentations, that succinctly covered the science, drilling, site survey and E&P requirements of a an IODP full proposal, including summaries of the scientific question(s) and why they are important, specifying scientific goals and the anticipated results, and describing the means (sites, site-surveys, platform, instruments, sampling, scientific expertise requirements) to accomplish those goals. All team members were again required to contribute to the oral presentations, which were followed by an opportunity to respond to questions from the audience. The 'Science Evaluation Panel' then convened to decide which of the proposed expedition to forward to the facilities boards for scheduling.

All participants engaged really well with the group task, and we heard six compelling proposals for drilling expeditions:

**Group 1:** VILLAINS – Verification and ILLUstration of African INTense Storms – The missing puzzle piece of African hydroclimate.

**Group 2:** CALZONE – CALabrian subduction ZONE drilling.

**Group 3:** MEDMAD – MEDiterranean Megaflood And Drought: climate records with societal relevance in a warming world.

**Group 4:** Atlantic HEROES – Hydroclimate, El Nino, Restricted Oxygen, & Ecological Systems: An Equatorial Atlantic Neogene Transect

**Group 5:** Manihiki climate and tectonics in the Cenozoic and Mesozoic – Response of ocean circulation, chemistry and ecology to extreme climate events in the Southern Hemisphere.

**Group 6:** GOBAD – GOrringe Bank Drilling project.

The workshop concluded with a drinks reception, during which prizes were awarded made for the best ECR research posters and to the ‘winners’ of the group exercise.

**Congratulations** go to:

- ‘The Atlantic Heroes’ (Group 4: Anna Joy Drury, Adele Garzarella, Amy Jewell, Amy Jones, Marcelo Mota, Lea Rausch, Leonardo Tamborrino) - **‘Scheduled Expedition’**
- Elliot Carter – **‘Best ECR Poster’ – winner:** Tracing slab volatiles during subduction through the noble gas isotope and halogen systematics of ophiolites.
- Yasmin Bokhari Friberg – **‘Best ECR Poster’ - runner up:** Reconstructing Indian Summer Monsoon variability during the Pliocene-Pleistocene transition
- Adam Woodhouse – **‘Best ECR Poster’ - runner up:** How have macroperforate planktonic foraminifer biogeographies varied through the Cenozoic?



- *Congratulations to The Atlantic Heroes (Group 4): winners of the group proposal writing exercise.*

#### **4. Budget Summary**

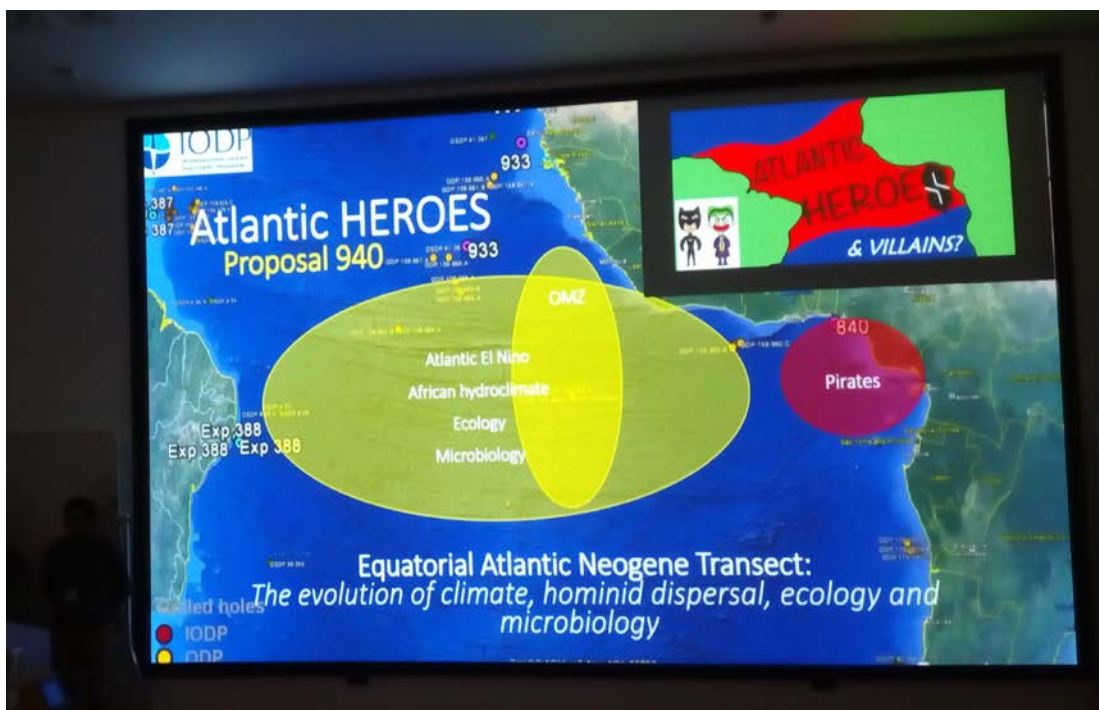
Summary of Expenditure for the ECORD-Magellan+ NERC UK-IODP ECR proposal Writing Workshop 24-26<sup>th</sup> September, 2018.

Organisational costs including catering and workshop booklets	£6449.39
Partial travel and subsistence costs for Lecturers and Mentors (Bell, Ildefonse, Pälke, Bach, Becker)	£1192.91
Travel and subsistence costs for early career researcher and PhD participants	£10718.85
<b>Total Costs</b>	<b>£18361.15</b>
Contribution from ECORD Magellan+ Program (€15,000)	<b>£13208.99</b>
Contribution from NERC UK-IODP	<b>£5152.27</b>

## 5. CONCLUDING REMARKS

Throughout the workshop the course leaders were impressed with how well the delegates engaged with the team exercise. Their enthusiasm for the proposal writing task, and the resultant inclusive, collaborative, supportive atmosphere (and healthy inter-team rivalry!) combined with a willingness to listen and respond to feedback led to the development of several well-thought out potential drilling proposals and was fundamental to the success of the workshop. We hope that following the workshop the delegates not only have a much better understanding of IODP opportunities and be better placed to compose effective and successful proposals, but they will also continue to benefit from lasting networks with their peers and course mentors that were established through this opportunity to work in multinational, interdisciplinary teams, gaining knowledge of peers' abilities and expertise, and exchanging ideas with group mentors.





Identifying opportunities for collaboration between teams -  
"You can't have (Atlantic) HEROES with (Atlantic) Villains!"

## **APPENDIX 1: Short Biographic Sketches of Workshop Hosts and Mentors**

Prof. **Damon A.H. Teagle** (University of Southampton) Chair of the NERC UK-IODP Programme Advisory Group; Lead Proponent IODP Prop 522Full5, Co-Chief Scientist ODP Leg 206, IODP Expeditions 309/312, and 335. Shipboard Party for ODP Legs 148, 163, 169 and 183. Shorebased member for Leg 158. ODP and IODP Science Evaluation Panels 2000-2006, IODP Executive Panels 2010-2012, Co-author “Illuminating Earth” IODP Science Plan 2013 to 2023.

Prof. **Wolfgang Bach** (MARUM, Univ. Bremen) was a member of the shipboard science party of ODP Legs 142, 148, 176, 193, and 209, and Co-Chief Scientist of IODP Expedition 336. He was Co-lead-PI of two funded IODP proposals that led to Expeditions 336 and 376. He was a member of the ODP Scientific Steering and Evaluation Panel (2002-2005) and Co-organizer of a Magellan Workshop in Lisbon (2012) and ECORD summer schools in 2009 and 2015. He was a convener of the INVEST conference in Bremen in 2009, during which the foundation for the current Science Plan was laid. Wolfgang is presently a member of the JOIDES Resolution Facility Board (JRFB).

Dr **Rebecca Bell** (Imperial College London) has been a proponent on two IODP proposals that have led to expeditions (Proposal 781- Hikurangi margin subduction margin, Expeditions 372 and 375 and proposal 879- Corinth Active Rift development, Expedition 381). She has sailed as a core-log-seismic integration specialist on the JOIDES resolution during Expedition 375 to the Hikurangi subduction margin in New Zealand. Since 2016 she has been a member of the IODP Science Evaluation Panel as a site survey data watchdog.

Dr **Rosalind Coggon** (Southampton) sailed on 3 scientific ocean drilling expeditions during her PhD (Leg 206 and Exp 312, Superfast 1256D; Exp 301, Juan de Fuca Hydrogeology). Following Leg 206, and was a co-proponent of 552-Full3&4, to deepen Hole 1256D (which led to Expeditions 309, 312, and 335). Ros is lead proponent of 853-Full2 (The South Atlantic Transect) and a co-proponent of efforts to drill the Reykjanes ridge flank (892-Full2) and deepen Hole 1256D (552-Full5) – all of which are with JRFB. She is also a co-proponent of the ‘MoHole to the Mantle’ MDP, currently with SEP, and recently gave the headline talk on scientific ocean drilling at New Scientist Live (“How low can you go? Drilling to the mantle”; Excel Arena, Sept 2017).

Dr **Benoit Ildefonse** (CRNS, Univ. Montpellier) has participated to 6 ODP and IODP expeditions since 1997, being Co-chief scientist on Expeditions 304/305 and 335. He was Chair of the IODP-France office from 2000 to 2010, and has been a member of various committees in the ODP and IODP organisations (ISSEP, SciCom, ExCom, iPC/SPC, OTF, ESSAC, SASEC). Co-proponent of several IODP proposals, he is one of the lead proponents of the “MoHole to Mantle” proposal, and currently a member of the Chikyu Facility Board.

Prof Lisa McNeill (**Southampton**) has sailed on 5 ODP/IODP expeditions, including as Co-Chief Scientist on 3 expeditions in last 10 years and is the first scientist to be chief scientist on each of the 3 platforms (319 on Chikyu, 362 on JR, 381 on Fugro Synergy/MSP). She served on the Science Evaluation Panel 2012-2015 and was lead/co-lead proponent on 2 successful proposals (Active Corinth Rift, Sumatra seismogenic zone). Lisa was a member of Chikyu+10 IODP Program Planning steering committee, 2013. She is Co-Chair of the IODP SEP from April 2019.

Prof **Heiko Palike** (MARUM, Bremen) has sailed on 3 ODP and IODP cruises including the IODP ACEX Expedition 302 to the Arctic. He was the lead proponent and Co-chief scientist of the Pacific Equatorial Age Transect (PEAT) expeditions (319/320). He is a world leader in stratigraphic correlation and Member of the IODP 2013-2023 Science Plan Writing Committee and on the JR Facility Board. He was awarded the Asahiko Taira International Scientific Ocean Drilling Research Prize in 2016.

Prof **Paul Wilson** (Southampton) has sailed on 6 scientific ocean drilling expeditions and twice as co-chief scientist. He has been a lead/co-proponent on numerous successful ODP/IODP proposals. He has served on numerous ODP and IODP science evaluation panels and on the IODP-MI Board of Governors. He is currently a member of the JRFB.