



Land-to-Sea Proposals (L2S)

1. Overview of Land-to-Sea Proposals

Land-to-Sea Proposals are those for which full achievement of the scientific objectives requires scientific drilling at both onshore and offshore sites or at shallow marine sites. They are jointly implemented by ICDP and the International Ocean Drilling Programme (IODP³). Both programmes focus on various challenging themes of global geoscientific and socio-economic relevance, including: (1) geodynamic processes; (2) geohazards; (3) georesources; and (4) environmental change.

To date, IODP and ICDP have jointly funded proposals which demonstrate a scientific need for one of the following:

- Both land and sea drilling (e.g., IODP Expedition 313/ICDP New Jersey)
- Shallow marine locations where the collaboration between IODP and ICDP can achieve much more than either entity on its own (e.g., IODP Expedition 364/ICDP Chicxulub 2).

ICDP and IODP³ have a common proposal submission process at each proposal stage and a joint review process by ICDP and IODP³ with a clear schedule and set of guidelines for proponents.

All proposed L2S projects will need to submit a **Preliminary Proposal**, a **Workshop Proposal**, and a **Full Proposal**. A workshop is required due to the complexity of such projects (see **Section 5** for full details).

Proponents (i.e., Principal Investigators and Co-Investigators) should prepare a single L2S Proposal at each stage combining the ICDP and IODP³ elements.

Land-to-Sea Preliminary Proposals and Workshop Proposals should be submitted to ICDP by emailing a single PDF file (< 10 MB in size) to **proposal.submission@icdp-online.org**. In addition, once notification is received from ICDP that the submission is in the ICDP system, this same PDF file should be uploaded to the IODP³ Gateway system at **https://gateway.iodp3.org** so the proposal receives an IODP³ proposal number identifier. This requires the Lead Proponent to register for an IODP³ Gateway account (this typically takes < 5 minutes), and, once registered, to drag and drop the PDF onto a simple webform and click submit.

Land-to-Sea Full Proposals should be submitted to IODP³ via the IODP³ Gateway system (https://gateway.iodp3.org).

The ICDP and IODP³ programmes will share all L2S proposal documents between them and arrange for joint review and response.

To summarize, L2S proposal submission requires a Preliminary Proposal, followed by a Workshop Proposal, and finally a Full Proposal. Full Proposals may only be submitted after the Workshop is held.

Details of each step and the specified schedule are given below. This deviates somewhat from the submission procedure for other ICDP and IODP³ proposals, therefore proponents should pay close attention to requirements, deadlines and where to submit to at each stage. To the largest extent possible, review procedures of both programmes are preserved. The joint implementation of a L2S Proposal will be resolved between the IODP³ MSP Facility Board (MSP-FB) and ICDP Executive Committee (EC) and Assembly of Governors (AoG), on a case-by-case basis.

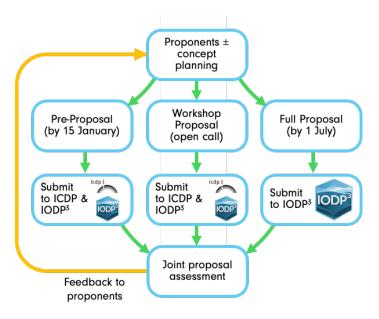
An overview of the criteria used for evaluation of proposals is provided in the IODP³ Proposal Evaluation Overview and ICDP Proposal Processing guidelines.

Note on Expedition Science Team Selection: Proponents should be aware that the science teams for the ICDP and IODP³ components of L2S projects are selected in different ways. In the case of the IODP³ component, any scientist from an IODP³ member country can apply for participation. Selection is a combined effort by the Programme Member Offices, the Co-Chief scientists of the expedition, and the platform operator, with the aim to enable appropriate participation of member countries and to provide the relevant scientific skills needed for the expedition. Therefore, proponents of the IODP³ component do not automatically become members of the Expedition Science Team. In the case of the ICDP component, up to 50% of the Expedition Science Team may be specified in the L2S Proposal. In addition, L2S Proposals may: (1) include Land-to-Sea drilling; or (2) comprise only shallow marine locations. If the former, the two science teams must work closely together to prepare for the paired expeditions/projects and after for analysis and integration of results. Some overlap in membership of the two science teams is to be expected.

More information about **ICDP proposals** and how to submit a Preliminary or Workshop L2S proposal via ICDP is available **here**.

2. Schedule and Joint Review Process for Land-to-Sea Proposals

L2S Preliminary Proposals (15 January deadline) and Workshop Proposals (no fixed deadline) should be submitted as a single PDF file by email to ICDP at proposal.submission@icdp-online.org. Once notification is received from ICDP that a L2S Preliminary or Workshop Proposal is in the ICDP system, the same proposal PDF file should be uploaded to the IODP³ Gateway system at https://gateway.iodp3.org. Full Proposals (1 July deadline) are submitted to IODP³ via the Gateway system and will be shared with ICDP. All proposals will receive review by the IODP³ Science Evaluation Panel (SEP) and the ICDP Science Advisory Group (SAG). IODP³ SEP watchdogs and ICDP appointees will generate a joint review of Preliminary and Full proposals, with subsequent panel review at the ICDP-SAG meeting in the Spring and IODP³ SEP meeting in the Autumn. A joint review letter of L2S proposals will be sent to the proponents following the IODP³ SEP meeting. A revised Pre-Proposal ("Pre2") may be requested and is permitted prior to moving to the Workshop proposal stage. Workshop proposals are accepted at any time, are reviewed by ICDP and IODP³, and will receive a response as soon as possible following submission. Outcomes of the workshop should inform the development of the L2S Full Proposal. In parallel with other IODP³ Full Proposals, only one revision of the Full Proposal (to "Full2") is permitted.



Land-to-Sea drilling proposal system

3. Summary of Land-to-Sea Proposal Requirements

Proposal Type	L2S Preliminary Proposal	L2S Workshop Proposal
Deadlines	15 January	Any time
How and Where to Submit	Submit a single PDF file to ICDP at: proposal.submission@icdp- online.org Upload same PDF file to the IODP ³ Gateway system at: https://gateway.iodp3.org	
General	Abstract: ≤ 400 words Scientific Objectives: ≤ 250 words Figures: Cannot be larger than a single-page A4 In-text References: Must be (Author, year) and not numerical superscripts Font size: 11- or 12-point Line Spacing: 1.5 Margin: 2.5 cm all around	
Main Text	≤ 4,000 words	≤ 5,800 words
Figures and Tables	No limit, so long as they convey essential information	
List of Proponents	Required	
Curricula Vitae (CV)	Required	
Proposal Cover Sheet	Required	

Land-to-Sea Full/Revised Full Proposals (Section 6)		
Deadline	1 July	
How and Where to Submit	Submit via the IODP ³ Gateway system at: http://gateway.iodp3.org	
 Proposal Cover Sheet: Abstract Scientific Objectives Science Communication Plain Language Summary 	Required ≤ 400 words ≤ 250 words ≤ 400 words	
Proponent Details	Required, max 20	
Main Text (including figure and table captions)	≤ 12,000 words	
Figures and Tables (included in Main Text PDF)	≤ 14	
References used in Main Text	Required	
Science Communication Form	Required	
Success Criteria and Risk Analysis Form	Required	
Curricula Vitae (CVs) of Key Proponents	Required for Principal, Data and Science Communication Lead proponents	
Proposed Sites	Required	
Operational Information (supplied by completing a matrix of required information for each site on a single webform)	Required	
Site Figures	Required	
Summary of Support Requested from ICDP	Required	
Review Response	< 300 words per point raised by in SEP reviews	

4. Land-to-Sea Preliminary Proposals

The deadline for submission of L2S Preliminary Proposals through the ICDP system is 15 January each year. Proponents should email a single PDF file to: proposal.submission@icdponline.org. Once notification is received from ICDP that a L2S Preliminary Proposal is in the ICDP system, the same proposal PDF file should be uploaded to the IODP³ Gateway system at https://gateway.iodp3.org so that the proposal may receive an IODP³ proposal number.

The main text of an L2S Preliminary Proposal is \leq 4,000 words long, (A4 size, 11- or 12-point font, 2.5 cm margins, line spacing 1.5). The text limit does not include the reference list, figure and table captions, cover sheet or details of proponents (see below for details). There is no limit to figures and/or tables so long as they convey essential information.

The **Main Text** of a L2S Preliminary Proposal should:

- State the scientific objectives and explain how those objectives specifically address or advance the 2050 Science Framework and the ICDP Science Plan
- Justify the need for drilling to accomplish the scientific objectives
- Present a conceptual strategy for addressing the scientific objectives through drilling, coring, logging, or other down-hole measurements
- Describe the proposed drilling sites, penetration depths, and expected lithologies
- Discuss the availability of, or plans to acquire, site characterisation data
- Discuss the % core recovery rates needed to achieve key goals
- Describe any requirements for or development of advanced and non-standard tools, special sampling techniques, down-hole measurements, and/or borehole observatories.
- Identify any logistical problems, e.g., political issues, permitting problems, extreme weather, sea-ice, piracy, or others.
- Describe briefly any relationships to other international geoscience programmes or initiatives.

L2S Preliminary Proposals should also include the following items (that do **not** count towards word or page limits). Writing guidelines and templates can be found **here**.

- An official ICDP Proposal Cover Sheet (available here), complete with an abstract of ≤ 400, and a statement of the scientific objectives of ≤ 250 words.
- A list of proponents (maximum of 14, comprising a maximum of four Lead Proponents and a maximum of 10 Co-Proponents), specifying the name, affiliation, email address, and expertise of each proponent. Within the Lead Proponent team, the Principal Lead Proponent and Data Lead Proponent (i.e., the person who will be responsible for submission of site characterisation data at the Full Proposal stage) also need to be identified.
- A standard 2-page Curriculum Vitae of all proponents listed in the cover sheet (please use the ICDP CV template available here).
- A list of proposed drilling sites, including alternate sites if known, with brief site-specific objectives.
- **NOTE:** No site characterisation data should be uploaded to the IODP³ Site Characterisation Database at this stage, but this will be required for a Full Proposal.

5. Land-to-Sea Workshop Proposals

Submission through ICDP at any time, open submission deadline. Proponents should email a single PDF file to: proposal.submission@icdp-online.org. Once notification is received from ICDP that a L2S Workshop Proposal is in the ICDP system, the same proposal PDF file should be uploaded to the IODP³ Gateway system at https://gateway.iodp3.org.

L2S Workshop Proposals should state the scientific objectives of the workshop and explain how those objectives relate to, or advance, the *2050 Science Framework* and the *ICDP Science Plan*. A revised L2S Workshop proposal may be required after review.

An L2S Workshop Proposal should include the items below and meet the formatting requirements. Writing guidelines and templates can be found **here**.

- An official ICDP Proposal Cover Sheet (available **here**), complete with an abstract of ≤ 400 words, and a statement of the scientific objectives of ≤ 250 words.
- A main proposal document consisting of a maximum of 5,800 words, excluding references (A4 size, 11- or 12-point font, 2.5 cm margins, line spacing 1.5).
- A list of proponents (maximum of 14, comprising a maximum of four Lead Proponents and a maximum of 10 Co-Proponents), specifying the name, affiliation, email address, and expertise of each proponent. Within the Lead Proponent team, the Principal Lead Proponent and Data Lead Proponent (i.e., the person who will be responsible for submission of site characterisation data at the Full Proposal stage) also need to be identified.
- A standard 2-page Curriculum Vitae of all proponents listed in the cover sheet (please use the ICDP CV template available **here**).
- If this is a revised workshop proposal, a clear response to previous review comments should be included in a cover letter.

The main proposal document should address the following items:

- Discuss the scientific objectives and explain how those objectives specifically address/advance the IODP³ and ICDP science plans.
- Explain why the research goals are of global and far-reaching importance and why drilling is needed to achieve these goals (the programmes do not consider topics of only local or regional relevance).
- Discuss the specific drilling site(s) or how these will be selected, and how they facilitate reaching the research goals.
- Discuss the societal relevance of the project and plans for education and outreach. **Please note**, an education and outreach plan is required for a L2S Full Proposal.
- Discuss the expected scientific outcome of drilling and subsequent work required to complete the overall project.
- Present a preliminary list of workshop participants to demonstrate international participation and a broad range of expertise, including those with knowledge of the IODP³ and ICDP programmes essential to the development of the proposal (this preliminary list should not exceed 50% of the total number of workshop participants). The proposal

should specify how efforts will be made to open the workshop and project to the wider international community of researchers from various disciplines.

- Give a brief description of the structure and agenda of the planned workshop.
- Outline specific scientific and technical issues that will be discussed and developed by the workshop participants. Summarize the planned strategy for addressing the scientific objectives through drilling, core/cuttings/fluid sampling, logging and down-hole measurements, laboratory testing and/or analysis of recovered samples, and integration with existing or planned surface-based studies, and highlight any particular aspects that will be discussed at the workshop. Note that technical and drilling details only need to be briefly outlined, as it is the task of a workshop to gather a critical mass of international researchers together to develop these aspects in a Full Proposal.
- Describe the proposed drill sites (and alternate sites) on the basis of the available data, which may include geologic maps, seismic sections and other geophysical data, sediment cores or other stratigraphic interpretations, cross-sections showing expected lithologies, and relevant information from prior drilling operations. If existing site characterisation data are insufficient, the workshop agenda should clearly address what is needed for further site characterisation prior to drilling (please refer to the IODP³ Guidelines for Site Characterisation Data and the Pre-site survey and site selection chapter of the ICDP Primer (v6, 2024)), and discuss how the necessary additional site characterisation data will be obtained.
- Include a workshop budget.
- Describe briefly any relationships of the drilling project or supplemental science investigations to other international geoscience programmes.
- In case of similar projects already conducted within ICDP or IODP³ (or its predecessor ocean drilling programs), accurately describe the relationship to these other projects and to what degree and how this project is unique.
- Note that one IODP³ and one ICDP review panel member will attend the workshop.
- Note that no site characterisation data should be uploaded to the IODP³ Site Characterisation Database (SCDB), but this will be required for a Full Proposal.

If a Workshop proposal is accepted, the proponents must have an open call (a web-based and/or printed advertisement) to the international scientific community for participation in the workshop of at least 50% of the total number of participants. Proponents are encouraged to seek co-funding of the ICDP workshop through IODP³ Programme Member Offices (PMOs).

6. Land-to-Sea Full Proposals

L2S Full Proposals must be submitted through the IODP³ Gateway system (http://gateway.iodp3.org). It is strongly encouraged that they are submitted ahead of the 1 July proposal submission deadline, with a deadline for upload of site characterisation data to the SCDB (via the IODP³ Gateway) approximately one month later. We do not recommend submission at the 31 January deadline, as the proposal will not be reviewed until the following review cycle (associated with the 1 July submission deadline).

Proposals that involve biosphere-related objectives may be affected by the "Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity" (https://www.cbd.int/abs/). For targets within an Exclusive Economic Zone or an Extended Continental Shelf, proponents should become familiar with the protocol's requirements for potential users of genetic resources to obtain the prior informed consent of the country in which the targeted genetic resource is located.

6.1. Structure of a Land-to-Sea Full Proposal

Land-to-Sea Full Proposals are created by completing a series of webforms on the IODP³ Gateway (https://gateway.iodp3.org). This includes elements requiring completion of webform text boxes (by direct entry or by pasting text from elsewhere), uploading of preprepared PDF files, and selecting options from pull-down menus or via checkboxes. The content of each type of webform is illustrated in Section 6 of the IODP³ Submission Guidelines for Scientific Ocean Drilling Proposals.

The webforms required for a Land-to-Sea Full (or Revised Full) Proposal submission are as follows:

- **IODP³ Proposal Cover Sheet webform:** containing the following elements:
 - the proposal Title
 - up to 5 Keywords and the broad geographic Area of the proposal
 - an **Abstract** of \leq 400 words
 - \circ a statement of the **Scientific Objectives** of ≤ 250 words
 - a Science Communication Plain Language Summary of \leq 400 words. This should describe the proposed research and its broader impacts in a way that can be understood by a general audience.
- Proponent Details webform: consisting of a table for provision of the names, countries (by institutional affiliation), email addresses, organisations, ORCiD numbers, areas of expertise, and career stages of all proponents (maximum of 20). The Principal Lead Proponent and Data Lead Proponent (i.e., the lead proponent for site characterisation data) are also identified from a pull-down menu, along with a Science Communications Lead at this stage if possible.
- **Main Text of the Proposal webform:** for upload of a PDF document of the main proposal containing the content outlined in **Section 6.2**.
- **References webform:** for upload of a document containing the references that are cited in the Main Text of the proposal (using the Harvard referencing style).
- Science Communication webform: providing details of related previous scientific drilling expeditions/legs, existing articles or media relating to the research, and any existing contacts within local populations or communities (see Section 5.6 of the IODP³ Submission Guidelines for Scientific Ocean Drilling Proposals). This information will help to inform a broader communication strategy should the proposal be implemented as an IODP³ drilling expedition.
- Success Criteria & Risk Analysis webform: that defines your minimum criteria for achieving scientific and operational success, primary risks to success and mitigating factors. Consultation with the IODP³ Operators is necessary for understanding risk and

developing mitigation strategies (see Section 5.7 of the IODP³ Submission Guidelines for Scientific Ocean Drilling Proposals).

- **CVs of Key Proponents webform:** for upload of a single PDF file containing two-page curricula vitae or biographical sketches for each of the Principal, Data, and Science Communication Lead Proponents (combined into one 6-page PDF).
- Proposed Sites webform: provided basic details of planned drilling/coring sites and brief site-specific objectives. Alternate sites must also be included at this stage. All Site Names must conform to the established system and site Positions must use WGS 84 coordinates in units of decimal degrees to at least the fourth decimal place.
- **Operational Information webform:** consisting of a matrix of operational and safety information about the suite of proposed sites (completed interactively within the IODP³ Gateway system).
- Site Figure webform: for upload of a PDF containing the Site Figure for each proposed primary drilling/coring site.
- **ICDP Support webform:** for upload of a two-page PDF summarising the support requested from ICDP for onshore drilling.
- Response to SEP Reviews webform: (for revised Full Proposals only) for upload of a PDF file that succinctly summarises how your submission has addressed specific points raised in previous SEP/SAG reviews of the Preliminary Proposal or the previous Full Proposal in the case of Revised Full Proposals, i.e., what has been changed from previous versions of the proposal, using ≤ 300 words per point.

Upon acceptance of the proposal by the IODP³-SO, individuals listed as proponents will receive an automatic email notification to confirm that they have agreed to this role.

All proposals submitted prior to each successive submission deadline will be assigned a formal IODP³ proposal number on the IODP³ Gateway system after the deadline that will be used in all related correspondence from the IODP³ Science Office. Land-to-Sea Full Proposal numbers will have the form "nnnn-L2S-Full" or "nnnn-L2S-Full2" (for Revised Full Proposals), where "nnnn" is a 4-digit number. The "nnnn" number will be the same as that assigned to the L2S Preliminary Proposal.

Submission of a Land-to-Sea Full Proposal indicates that the whole proponent team agrees to have the abstract provided in the IODP³ Proposal Cover Sheet made available to the scientific ocean drilling research community via the IODP³ website shortly after the deadline passes.

No information on the names of members of the L2S proponent team or any other personal information will appear on the IODP³ website. Members of the research community who wish to discuss with proponents any of the active L2S proposals listed on the IODP³ website therefore need to email the IODP³ Science Office on proposals@iodp3.org, who will contact the Lead Proponent to seek permission to pass on their contact details to the enquirer.

6.2. Scope and Content of the Main Text of a Land-to-Sea Full Proposal

The main text of a L2S Full Proposal should be a maximum of 12,000 words long, including captions for figures and tables but excluding references, with \leq 14 figures and/or tables. The

document should be formatted for A4 size, using 11- or 12-point font, 2.5 cm margins, and line spacing 1.5. The word limit does not include the proposal cover sheet, any appendices, or the list of proponents; these should not be included in the Main Text (see below for details). The proposal should describe extensively all aspects of the full scientific experiment, drilling plans, and the operational information necessary to determine feasibility, data availability, and site assessment needs. Prior reviews, input from other Advisory Panels, and/or workshop input should be carefully considered and addressed in the Full Proposal. However, note that the IODP³ Gateway system also requires completion of a **Response to SEP Reviews webform** (not included in the proposal word/page limit) to summarize changes made in response to previous reviews, and **the information provided via that webform does not need to be repeated in the Main Text.** Details of the budget, technical and drilling plans, data management plans for the land sites (see information below) should be included as Appendices.

The Main Text of a L2S Full Proposal should:

- Include the proposal title at the top
- State the scientific objectives and explain how those objectives specifically address/advance the 2050 Science Framework and the ICDP Science Plan.
- Indicate how the results from the Workshop have been integrated into the proposal.
- Justify the need for drilling to accomplish the scientific objectives.
- Present a well-defined strategy for addressing the scientific objectives through drilling, coring, logging and/or other down-hole measurements.
- Provide detailed estimates of, and justification for, the time required for drilling, coring, logging, and/or other down-hole measurements.
- Describe the available site characterisation data and any plans for acquiring additional needed data, and discuss how the drilling targets relate to these data.
- For offshore site characterisation requirements, please refer to the IODP³ Guidelines for Site Characterisation Data. For land site characterisation recommendations, please refer to the Pre-site survey and site selection chapter of the ICDP Primer (v6, 2024).
- NOTE: Proponents must upload the required, comprehensive set of site characterisation data into the IODP³ SCDB for both land and offshore sites by approximately one month after the proposal submission deadline. While we normally require data submission as described in the IODP³ Guidelines for Site Characterisation Data, exceptions may be made under specific circumstances, e.g., use of proprietary data. This would require communication with the Chair of the ICDP Executive Committee.
- For the *offshore* component of the L2S project, in order to increase operational flexibility in IODP³, proponents are <u>required</u> to outline three different implementation plans for the offshore operations in their L2S Full Proposal:
 - An **Essential Plan** listing the site(s) that is/are proposed for drilling/coring to guarantee the fulfilment of the crucial scientific objectives that must be achieved in order for the expedition to be successful.
 - An **Intermediate Plan** in which specific priority sites are proposed for drilling/coring to guarantee the achievement of major scientific objectives and benefits achievable beyond the Essential Plan.

• An **Advanced Plan** including all proposed sites for drilling/coring to achieve all scientific objectives to their full extent and benefits achievable beyond the Intermediate Plan.

If proponents are unable to outline three different implementation plans, they must explain the reasons in detail. In any case, an Essential Plan must be provided!

- Include sufficient alternate drill sites as safety or site characterisation concerns may preclude drilling at one or more primary sites either before or during operations. This is an essential element of a Full Proposal.
- Discuss required % core recovery rate(s) as a function of depth and highlight particular target zones in order to achieve the primary objectives of the proposal.
- Address the impact on the science if required recovery is not achieved.
- Discuss the expected scientific outcomes of drilling and subsequent work required to complete the overall project.
- Describe any requirements for and/or development of advanced and non-standard tools, special sampling techniques, down-hole measurements, borehole observatories or others, and include a funding plan for observatory data recovery, maintenance, and ultimate termination.
- Describe any external funding for non-standard tools.
- Identify any logistical problems, e.g., permitting issues, extreme weather, ice conditions, piracy, etc.
- Describe briefly any relationships to other international geoscience programmes and/or initiatives.
- Provide a detailed response to the joint IODP³-ICDP review(s) of previous versions of the proposal via the **Response to SEP Reviews webform**.
- For *offshore sites*, please note that if the proposal is selected for drilling, sites will also need to be approved by the IODP³ Safety and Environment Advisory (SEA) Group.
- For *onshore sites*, include:
 - A detailed budget including at least two full quotes from drilling contractors. These should include costs for site preparation, drilling, down-hole measurements, on-site sample handling and analyses, down-hole monitoring, logistics/travel, etc., and should separately classify costs as contracts, consumables, and services (such as mobilisation/ demobilisation), as well as time-dependent services in different phases.
 - A detailed technical plan and a permitting plan with details of the authority that grants permission for drilling. Note: ICDP categorizes a project according to its technical complexity and requires different degrees of technical planning for executive operations.
 - A detailed drilling, testing and logging schedule or timetable.
 - A project management plan, defining roles and responsibilities for key personnel and identifying all proponents in essential scientific and operational aspects of the project.
 - $\circ\,$ An Education and Outreach Plan defining implementation and individual responsibilities.

• Up to 50% of the Expedition Science Team for land site drilling may be specified - this list of names should be included within the Main Text of the proposal.

7. Implementation of an Approved Land-to-Sea Proposal

If the Full L2S Proposal is reviewed favourably by the ICDP-SAG and the IODP³ SEP, it may be forwarded to the Executive Committee (EC) and Assembly of Governors (AOG) in ICDP and the IODP³ MSP-FB for possible implementation. At this point, issues of coordination between the onshore and offshore drilling components are discussed between the MSP-FB and ICDP Operational Support Group (OSG).