GRANT AGREEMENT

between

The German Research Centre for Geosciences (GFZ),

Telegrafenberg, 14473 Potsdam, acting as the coordinator of the project International Continental Scientific Drilling Program (ICDP),

hereinafter referred to as "agency"

and

University of Your Affiliation,

on behalf of the

Principal Investigators of Your Drilling Project

hereinafter referred to as "grantee"

hereinafter, jointly or individually, referred to as "parties" or "party",

of the

Your Project Acronym

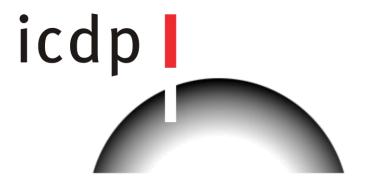


Table of Contents

			_	_		_
Тъ	h	۵ ا	Λf	$C \wedge r$	ntor	nts2

PREAMBLE2

ARTICLE 1 - Subject of the agreement3

ARTICLE 2 - Description of the action3

ARTICLE 3 - Estimated budget and budget transfer3

ARTICLE 4 - Responsibilities of the agency3

ARTICLE 5 - Responsibilities of the grantee4

ARTICLE 6 - Intellectual Property Rights6

ARTICLE 7 - Confidence6

ARTICLE 8 - Liability6

ARTICLE 9 - Entry into Force, Duration and Termination7

ARTICLE 10 - Amendment7

ARTICLE 11 - Applicable law and resolution of conflicts7

ARTICLE 12 - Representatives7

Signatures and Date9

Attachment 1:1010

Attachment 2:1111

Attachment 3:1212

Attachment 4:1414

Attachment 5:1515

PREAMBLE

Scientific drilling has the capability to make a quantum leap in the scientific understanding of earthquakes, volcanic eruptions, the wise use of resources, climate and environmental changes, the biosphere-lithosphere interaction and the evolution and extinction of species. The International Continental Scientific Drilling Program (ICDP) was established as a project acting as a funding agency to provide Earth scientists the ability to address this broad spectrum of challenges society will face in the $21^{\rm st}$ century.

The GFZ German Research Centre for Geosciences has established Memorandums of Understanding with the **YOUR COUNTRIES** Science Foundation, the Ministry of Geology and Mineral Resources of the People's Republic of China, the U.S. National Science Foundation, the British Geological Survey, the German Research Foundation, the Japan Agency for Marine Sciences and others that define the purpose, organization, and operation of the agency ICDP. Under said agreements, the GFZ is the ICDP-project coordinator providing the administrative leadership and direction of the ICDP, which is acting as a funding agency for scientific drilling projects and the related actions.

ARTICLE 1 – Subject of the agreement

This agreement sets out the rights and obligations and the terms and conditions applicable to the grant awarded to the grantee for implementing the action set out in Article 2.

ARTICLE 2 – Description of the action

The grant is awarded for the action entitled **Your Project Title** as described in detail in the full proposal to ICDP, see <u>Attachment 1</u>. A budget plan and a provisional time schedule for the execution of the action under the direction of the grantee are given in <u>Attachment 2</u>.

ARTICLE 3 – Estimated budget and budget transfer

With the granted budget of up to **Your Approved Grant Amount** US Dollars the agency will support reasonable efforts of the grantee to fulfil the following responsibilities:

- 1) funding of drilling, logging or experiments or related operations via transfer of money to the grantee's institutions;
- 2) direct payment of on-site operations through the agency, with on-site supervision through and by order of the grantee.

Invoices and billing for the agency share of the action will be coordinated by the agencies Operational Support Group (OSG) from an account administered by the GFZ.

Upon approval of the grantee OSG will arrange for balancing of invoices of drilling and other operational contractors.

ICDP does not allow any overheads to be charged by the PIs or their universities from payments by ICDP. Shares of the ICDP grant will be requested by Lausanne University according to operational milestones in several increments and will be paid from an account administered by ICDP.

Grantee and the Technical Manager and his administrative officer will provide oversight and approve all calls for transfers to be paid by ICDP. ICDP will release payments for calls for transfer within four weeks after billing and approval.

The agency will retain a minimum of 5% of approved funding until all reports as described in Article 5 and in Attachments have been delivered.

All payments by the agency are depending on the timely project contributions (annual membership fees) of the ICDP project partners. Therefore, all funding duties by the agency are subject to availability of funds.

The agency will neither accept participation of science team members nor grant transfers to persons, groups, and entities under European Union Sanctions to an asset freeze and the prohibition to make funds and economic resources available to them. The list of sanctioned persons and organizations published by the EU (https://www.sanctionsmap.eu/#/main).

ARTICLE 4 - Responsibilities of the agency

The service and consultation such as time of personnel, tools, and instruments provided through the Operational Support Group (OSG) of the agency is generally free of charge.

Nevertheless, requested OSG support causing external costs for the agency such as travel and transport must be borne by the related ICDP grant. Accordingly for this share of the granted budget, the OSG is considered a grantee.

OSG's support includes

1) Data and information management:

OSG will provide an integrated ICDP Information Infrastructure which consists of the On-site Drilling Information System DIS GFZ and which is an integral part of the ICDP Clearinghouse and the ICDP Data Warehouse.

Prior to drilling operations OSG and GFZ Data Center personnel will:

- in co-operation with the actions data manager (designated in time by grantee) configure an individual DIS for this action,
- perform a test installation of the individual DIS and will provide a training for the actions data manager at GFZ,
- support usually via phone or email the action data manager on installation and administration of the DIS at the site of this action.

During the implementation of the action OSG and GFZ Data Center personnel will support the action data manager on administration of the DIS.

- 2) OSG will provide engineering support and consultation for:
 - oversight and support during drilling operations and in cases of emergency during operations in co-operation with grantee and the action's drill engineer or operations manager.
 - Consultation for: Consultation in cases of emergency
 - Support and consultation for: planning of on-site science operations, set up and operations of on-site field lab, training of action's on-site personnel, consultation in cases of emergency.
- 3) Conduction of an action oriented ICDP training course for geoscientists, logging specialists, and drilling engineers and data manager.
- 4) Conduction of geophysical downhole logging measurements using OSG instruments and staff of the OSG if available for the necessary time slot
- 5) Other support
- 6) Instrument provision

ARTICLE 5 - Responsibilities of the grantee

The grantee has full responsibility for the direction of the action or activity supported under ICDP funds and for adherence to the conditions stipulated by the funding. Although the grantee is encouraged to seek the advice and the opinion of the ICDP-OSG on special problems that may arise, such advice does not diminish the grantee's responsibility for making sound scientific and administrative judgments and does not imply that the responsibility for operating decisions has shifted to the agency.

The grantee uses reasonable efforts to fulfil the following responsibilities:

1) Participation of Scientists

Scientists and technicians from all ICDP partner countries and corporate affiliates, included in the Scientific Team (see appendix A of the proposal), shall have the opportunity to participate in this action. Additionally, the grantee advertises the action for participation of other interested scientists through timely announcements, as `hole of opportunity´. All scientists are expected to provide their own support. The activities from the interested scientists will be coordinated through the grantee.

Authorization and Availability of Data and Samples, Rights and Commencement of Disposal.

With OSG-support the grantee will enable the access to all drilling related data, including technical data, engineering plans, samples, cores and well logs. The grantee will therefore make these data available through the Drilling Information System (DIS) in co-operation with OSG (see Attachment 3). The timing within this schedule, authorization and appearance of presentations within electronic or other media will be managed through OSG in co-operation with the grantee and the data manager.

Data associated to surveys collected during the course of the action or to monitoring shall also become available, but availability may depend on the moratorium policy depending on the specific partners and teams which were collecting these data (see appendix D in the proposal).

Reports and Substantiation of Expenditures

The grantee and the site-teams have to describe the status of the action in scientific and financial reports. Details of the reports are described in Attachment 3.

If reports are not submitted, processing of a planned funding instalment will not be initiated by the agency.

All drilling operations and down-hole measurements or experiments will be reported on a daily basis in the mDIS (report forms with minimum requirements provided by OSG). In the event that the mDIS is temporarily not available or working, the grantee will provide reports to OSG on a weekly basis via electronic messages (e.g. email). In the case of events that endanger the budget plan or schedule of the action, the grantee will inform the agency as soon as possible.

Publication

The grantee and members of the scientific group are expected to publish or otherwise make publicly available the results of the work conducted with ICDP support. It is expected to publish a Science Report in e.g., the journal Scientific Drilling shortly after the drilling operations including an Operational Report and the corresponding data sets as electronic supplements. The grantee shall require that all cooperating scientists inform them with citation information and copies in advance of all presentations and publications related to this action. The timing, authorization, and appearance of presentations within electronic or other media will be managed through the grantee.

All kinds of publications by the grantee and the Scientific Team related to the action should be reported to the OSG; two copies should be sent to OSG in order to allow recording and long-term availability of the publications.

On-site measurements (e.g., downhole and whole core physical properties) and initial core data shall be openly accessible to all cooperating scientists. Nevertheless,

the results are owned by the responsible scientists and will only by published in accordance with the responsible scientists.

Results of scientific work, which were directly achieved with OSG service or consultation, should not be published without notice to and if possible, in cooperation with OSG.

Acknowledgement of Support

The grantee and all cooperating scientists are obligated to acknowledge the ICDP support on any publication of any material, whether copyrighted or not, based on or developed under this international action.

In addition, upon request grantee shall consult with the next generation of grantees to communicate experiences in managing ICDP actions (projects and workshops). They should also be available for ICDP training courses, for distinguished lecture programs and report to the ICDP panels upon request.

Long-term Curation and Sample Storage

Long-term curation and sample service will be handled by the site teams of specific boreholes. This includes proper protection, storage, organization, oversight and provisions for easy access and use for valid research purposes.

A **two-year moratorium** period following generation of samples or initial data will limit access and use exclusively to the action's scientific team. At the conclusion of the moratorium, access to the samples or data will be unrestricted.

If at any time in the future this core storage facility is to be closed or if the facility does not allow free access to the cores by the scientific community, ICDP will immediately be informed and seek for an alternative repository.

ARTICLE 6 - Intellectual Property Rights

With respect to copyrightable data produced under this grant agreement, each Party shall be entitled to at least a non-exclusive, irrevocable, royalty-free license in all countries to reproduce, publicly distribute and translate scientific and technical reports and information prepared under this agreement, provided that the Parties will not make public distribution of data to which the right of access has been delayed until such time as that period of delayed access has expired.

ARTICLE 7 - Confidence

The Parties will provide each other with any information which they can dispose of and which is useful for them to carry out their obligations under this agreement. The Parties take care that any confidential information or any information restricted to authorized persons will not be distributed to unauthorized persons or the public.

ARTICLE 8 - Liability

The agency cannot assume any liability for activities, data, results, computer programs or late performance of duties defined in this agreement.

The agency cannot assume any liability for accidents, illness, or claims arising out of any work performed under this agreement.

Each Party will attempt efforts to take such steps as may be deemed necessary to insure or protect itself, its employees and its property.

ARTICLE 9 - Entry into Force, Duration and Termination

This agreement will enter into force upon signature and remain in force while the action is in progress and all defined duties have been fulfilled or by written declaration of termination.

The agency's support may be suspended or terminated in whole or in part, when the agency has reason to assume that the grantee has failed to comply with the terms and conditions of this agreement or when the agency has other reasonable cause. The same is true for a mutual agreement between the agency and the grantee upon the request of either Party (if the parties cannot reach an agreement, agency reserves the right to unilaterally terminate the support). Normally, action by the agency to suspend or terminate a support will be taken only 6 months after the grantee has been informed by the agency, or informed of any deficiency on its part and given an opportunity to correct it.

No costs incurred during a suspension period or after the effective date of a termination will be allowable, except those costs for operations or material which were already ordered and cannot be suspended, and those costs which, in the opinion of ICDP, the grantee could not reasonably avoid or eliminate, or which were otherwise authorized by the suspension or termination notice, provided such costs would otherwise be allowable under the terms of the grant.

ARTICLE 10 - Amendment

This agreement may be amended and extended by written agreement of the Parties. Neither the phenomenon nor the phenomena under study nor the objectives of the action stated in the proposal nor the budget figured in the proposal can be modified without any prior approval of the agency. Such changes should be proposed to the agency by the grantee in writing or in text form.

ARTICLE 11 - Applicable law and resolution of conflicts

This agreement shall be subject to the laws of the Federal Republic of Germany. The place of jurisdiction is Potsdam.

The Parties will attempt, in good faith to resolve any controversy or claim arising out of, or relating to, this agreement. In the case of non-resolved controversy, the chairperson of the agency's Science Advisory Group (SAG) will be asked for arbitration.

ARTICLE 12 - Representatives

For the purpose of this agreement, the representatives of the Parties are:

Helmholtz-Centre Potsdam GFZ - German Research Centre for Geosciences:

OSG representative or a person duly authorized by him.

Grantee: Lead PI and representatives

Lead PI 1: Project Manager responsible for technical operations

- Lead PI2: scientific lead Principal Investigator responsible for the geoscientific program or a person duly authorized by him
- Lead PI 3:

•

Signatures and Date

Helmholtz Centre Potsdam GFZ German Research Centre for Geosciences					
Prof. Dr. M. Bohnhoff	date				
Executive Director ICDP					
Prof. Dr. S. Buiter	Dr. S. Schwartze	date			
GFZ Executive	Board				
University of Lead PI					
XXXXXXXXX YYYYYYYYY		date			
XYXYXYXYXY Lead PI		date			
University of Lead PI 2					
XYXYXYXYXY Lead PI 2		date			

Summary of the approved proposal "NAME OF YOUR PROPOSAL" **Attachment 1:**

TEXT OF ABSTRACT OF YOUR APPROVED FULL PROPOSAL TO ICDP.

Attachment 2: Budget plan

PROJECT ACRONYM budget (as of Day.Month.Year)

Item Position 1		Cost/Curr. Cost 1
Position 2		Cost 2
Position 3		Cost 3
Position 4		Cost 4
Position x		Cost x
	Total costs	Total \$ €

Funding Plan

XYXYXY US\$

ICDP contribution:

Other funding organisation 1: XYXYXYX CHF

Other funding organisation 2: XYXYXYX €

Other funding organisation 3:

Total funding XYXYXYXY US \$

Attachment 3: Specific Reports to ICDP

1. While Drilling

a) Daily Drilling Reports of Operator

(for internal use, partly sharing among the Science Team and archiving) (per shift and/or day)

b) Data Updates

(for sharing among the Science Team and archiving) (incremental Updates of the basic data sets per day)

- **c) Message of the Day** a short simple message per for action specific webpage in the ICDP portal that may include but is not limited to
 - An "Image of the Day"

Plus, a number of selected images (optional)

Both including short captions with creator and copyright

Message of the Day: informative text describing the progress and highlights of the day including creator and copyright

After Drilling

A peer reviewed open access Science Report in the journal "Scientific Drilling" shortly after the completion of the drilling operations, but not later than the first sampling party six months after the completion of the drilling operations. This Science Report includes a detailed Operational Report, and the Basic Data Sets as digital DOI-referenced published supplements.

a) Scientific Report (to be published in the journal "Scientific Drilling")

The Scientific Reports shall include:

A summary of overall progress, including major results obtained to date,

A comparison of actual accomplishments with proposed goals for the period,

An indication of any current problems or favourable or unusual developments, A summary of work to be performed during the succeeding period,

Other information pertinent to the action and

A list of Publications resulting from the action.

b) Operational Report (to be published as digital supplement to the Science Report in the Scientific Drilling Journal)

Personnel

The action targets

Scientific objectives

Preparations / Mobilizations/ Demobilizations

Technical Operations description including e.g.

- Infrastructure at the location and drill site set up,
Rig type and specifications of installed components (e.g. hook load capacity,
drawworks, pumps, rotary table, power swivel, handling equipment),

A summary of drilling and coring operations (incl. BHA's, bits, core bits, core recovery, used mud systems, mud pressure, mud density and mud flow, ROP, WOB, RPM etc),

A casing scheme and description of cementing operations,

Description of problems encountered e.g. fishing operations, mud loss, breakouts and a

Summary of progress and costs including a drill-time log and a depth vs. cost breakdown.

Scientific Operations

Inventory of Sample Material

The Basic Data Sets

Storage of Sample Material / Sampling Party

Preliminary Scientific Assessment

Conclusions

Acknowledgements

Glossary

See example:

The COSC-1 Operational Report (DOI.org/10.1594/GFZ.SDDB.ICDP.5054.-2015)

c) The Basic Data Sets

Example: The COSC-1 Operational Data Sets (doi.org/10.5880/ICDP.5054.002) and Explanatory remarks on the operational data sets

Financial reports

The grantee or the action manager in charge of finances and budget have to provide at least monthly oversight of income (ICDP and other funding sources covering operational costs) and payments in oversight form to ICDP-OSG; these reports shall show differences to Budget and Cost plans as planned and detailed in Attachment 2 and 3.

A full financial report is due three months after the action's operational phase (drilling and completion) ended.

Attachment 4: Drilling Plan, Schedule, and Responsibilities.

The drilling plan is presented in **Appendix XY** in the Full proposal.

Time Schedule for the Drilling Operation

Drill site is planned to be constructed in: day month year

Mobilization will start in day month year

The planned spud date will be day month year

Drilling and testing operations are planned for S day month year

Demobilization will be performed in day month year

Project Management Plan

YOUR MANAGEMENT PLAN WITH RULES, RIGHTS, AND RESPONSIBILITIES

Attachment 5: Daily Drilling Report requirements

Compiled by:

Daily drilling report

"YOUR PROJECT ACRONYM"

DDR nr:		
Date:	Time:	Depth (m):
m drilled last 2	4 h:	
Type of drill bit	:	
Operational par	rameters:	
Core recovery:		
Mud:		
Current activity	/:	
24 h summary:		
Lithological sur	nmary:	
Environmental	notifications:	
Spill:		
Others:		
Disposed from sit	te:	
Safety (Carried o	out inspection roun	ds of equipment and working safety)
Incidents/Accid	dents:	
Weather:		