



Data and Information Management in Drilling Projects

Capture of Primary Data in Scientific Drilling Projects

**Scientific Drilling
Ronald Conze**

**German Research
Centre for Geosciences
GFZ**



**Where does
this core come
from ?**

A Rule of Thumb

Without Ideas and Targets no Project

Without Project no Drilling

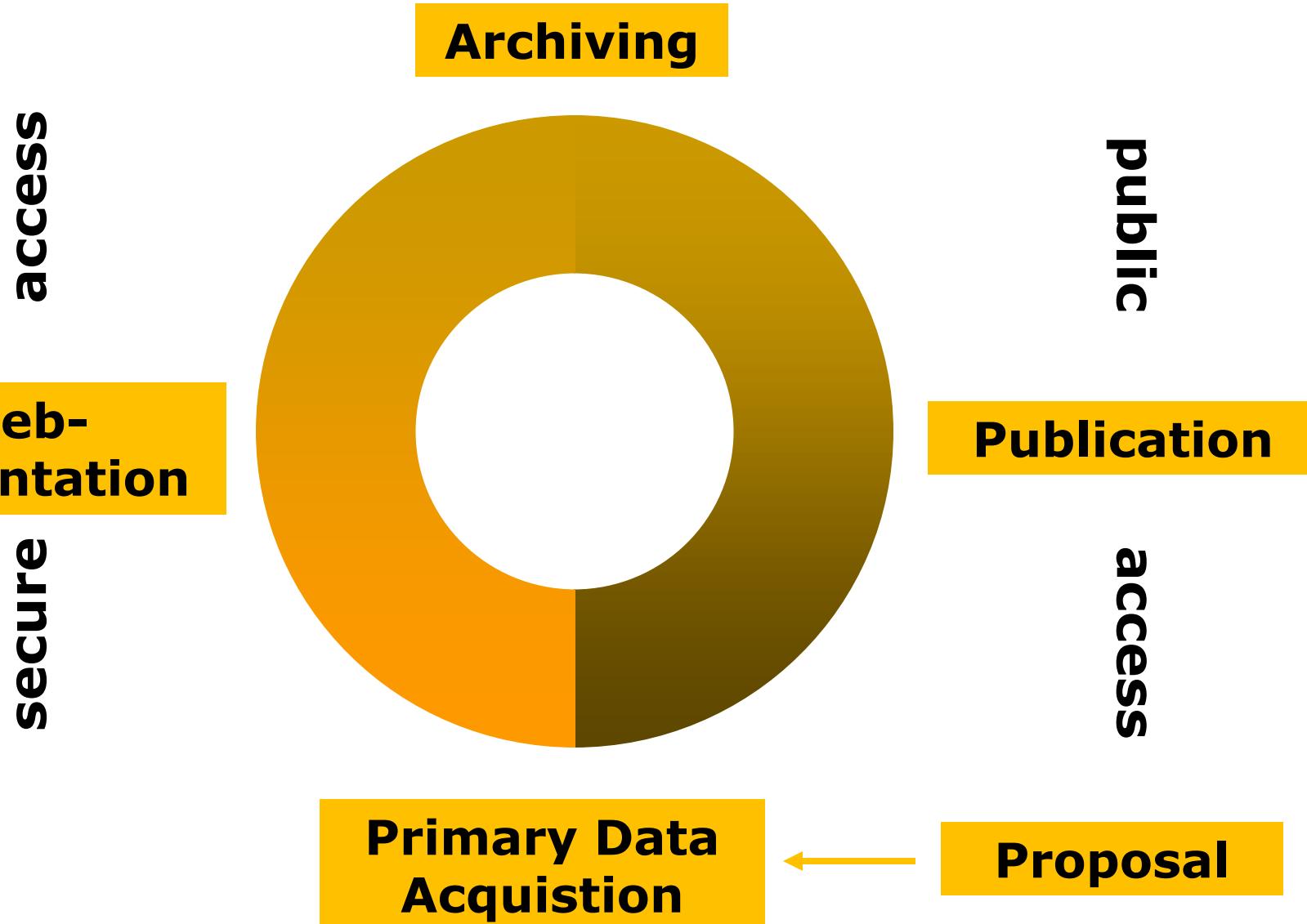
Without Drilling no Hole

Without Hole no Core

Without Core no Data

Without Data no Scientific Output

General Lifecycle of a Scientific Drilling Project



Information System for ICDP Projects

Drilling Information System (DIS)

= data acquisition



Web Site within the ICDP Information Network

= data dissemination



Datasets in Scientific Drilling Data Centers

= data publication



Drilling Information System

Targets:

- **operational support in on-site data management**
- **toolbox to build and maintain individually designed DIS for a distinct drilling project**
- **main focus on Data Acquisition**

Targets (cont.):

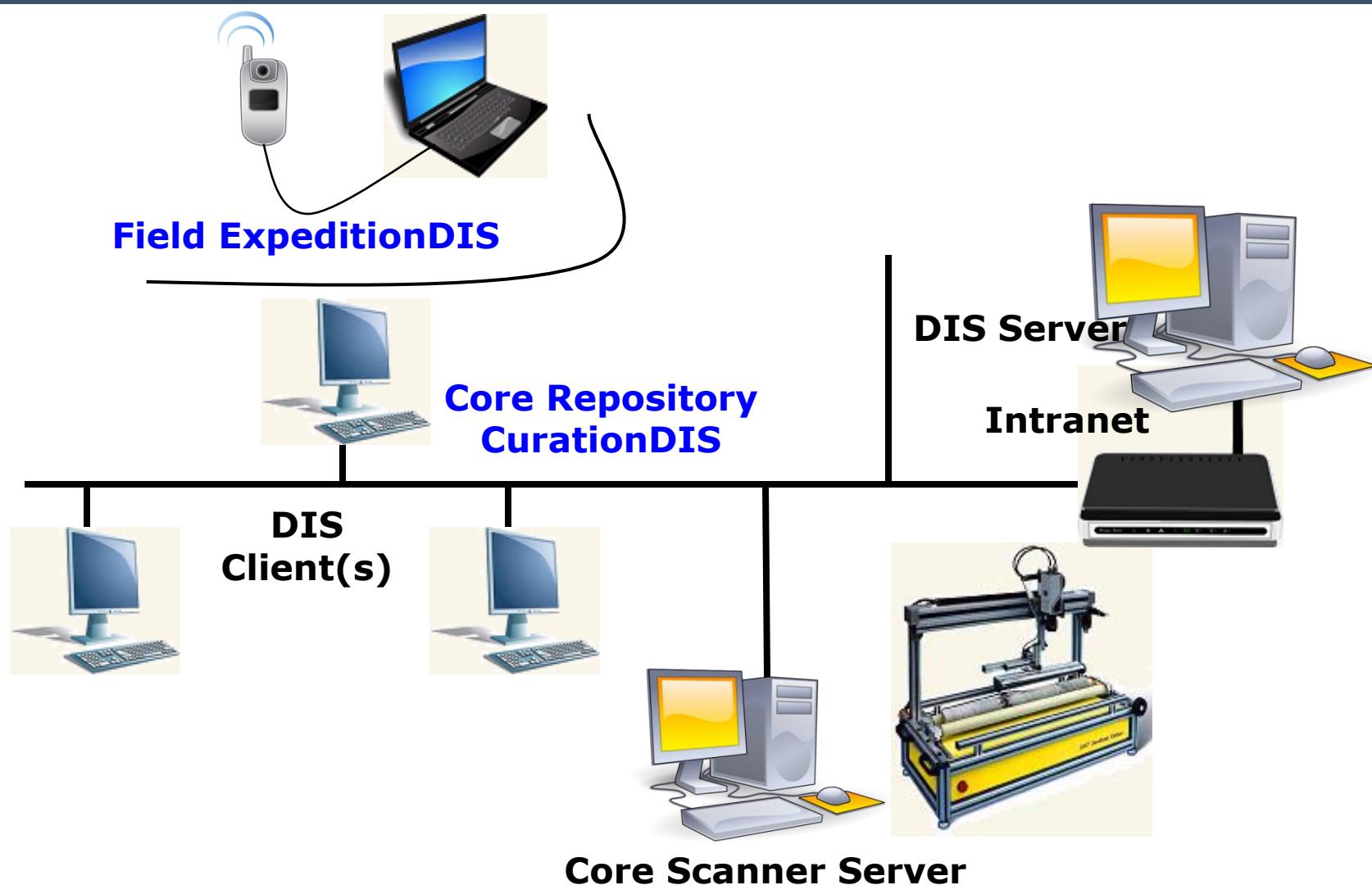
Data Acquisition

- documentation and administration of
 - **basic – initial - primary data**
 - **initial measurements and reports**
 - **sample requests and sample distribution**
- to provide
 - **common reference for all Science Team Members including depth matching**
- as early as possible
- to avoid non-synchronized and non-authorized data files

Realization

Requirements ?
Personnel and Responsibilities ?
Policies ?

DIS – Standard Local Infrastructure



Scalability – Arctic Coring Expedition (ACEX)

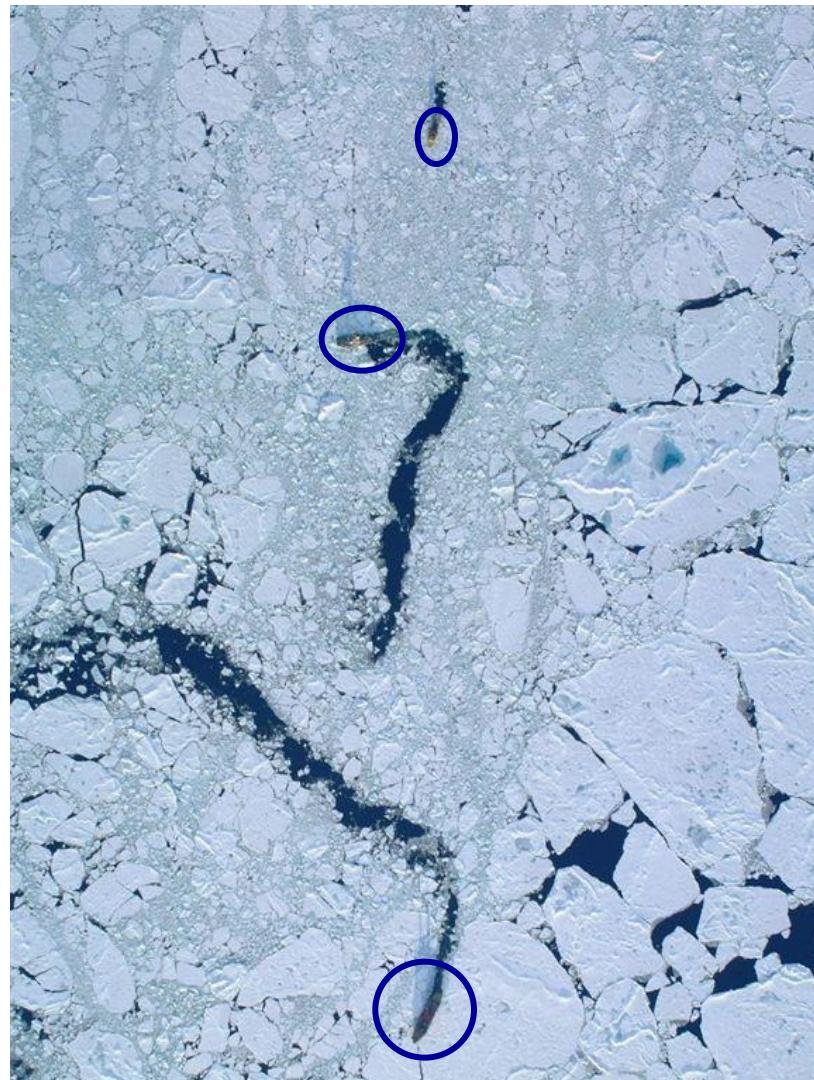
drill ship



science & lab ship



icebreaker



DIS server I

wireless LAN
DB-
replication

DIS server II

WLAN 11Mb –
7.5 km 10 kb –
20 km

up to 10 DIS
clients ship
based Intranet

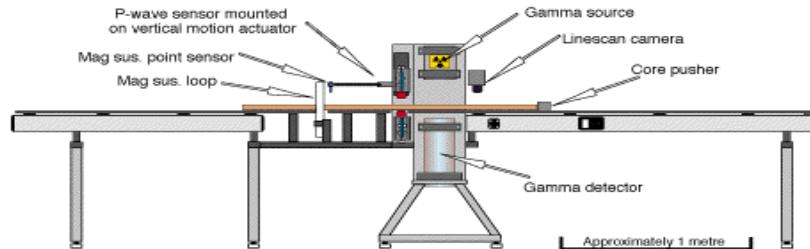
satellite uplink
to the Internet

Scalability – Fennoscandia Arctic Russia – Drilling Early Earth Project (FAR-DEEP)



GeoTek Multi Sensor Core Logger (MSCL)

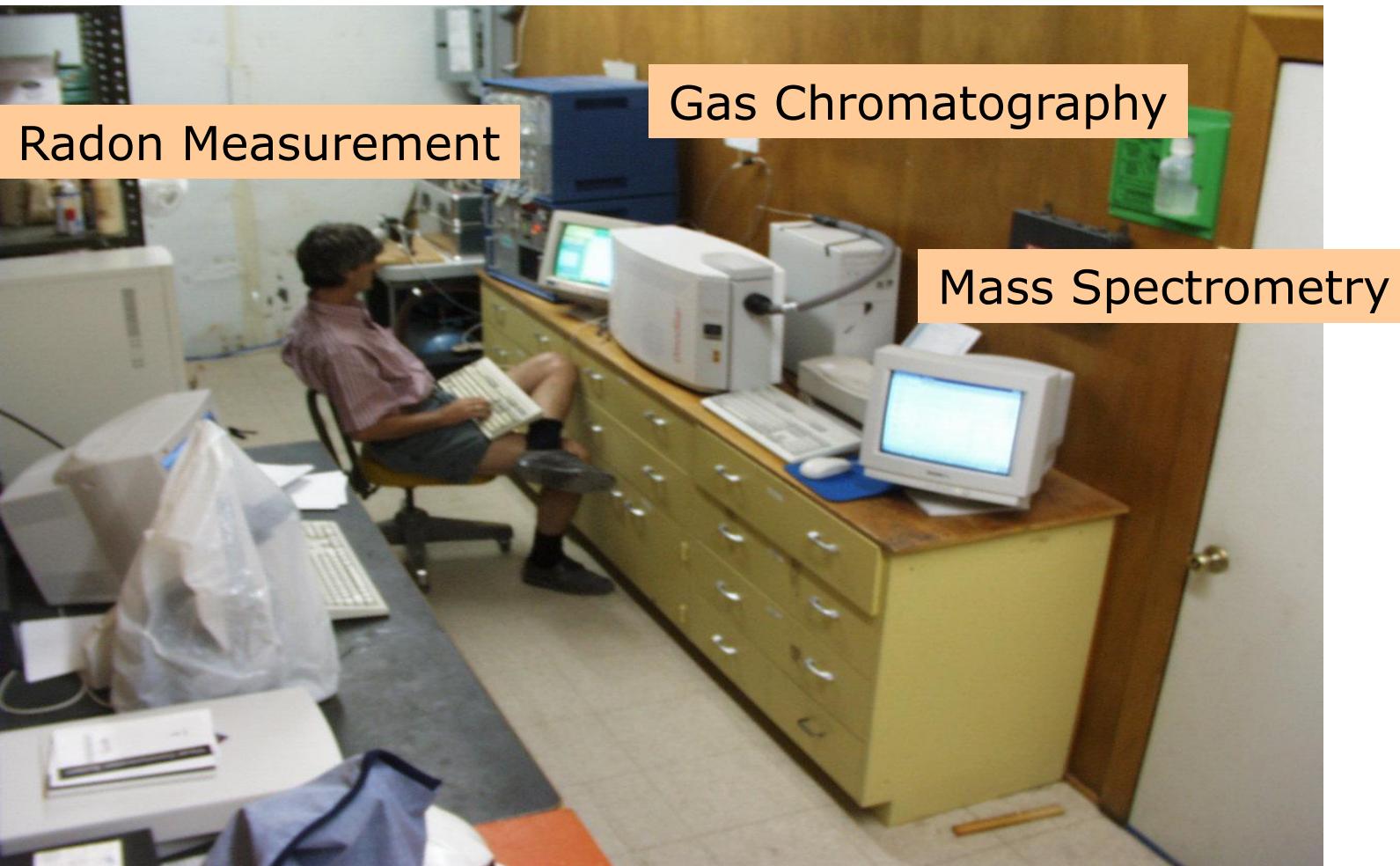
A typical MSCL Split/Whole-Core configuration for soft sediments



- Core diameter measurements
- P-wave measurements
- Gamma Ray Attenuation (bulk density)
- Magnetic susceptibility
- Core imaging
- Natural Gamma
- Electrical Resistivity

Optional Measuring Devices with DIS-Interface

Online Gas Monitoring

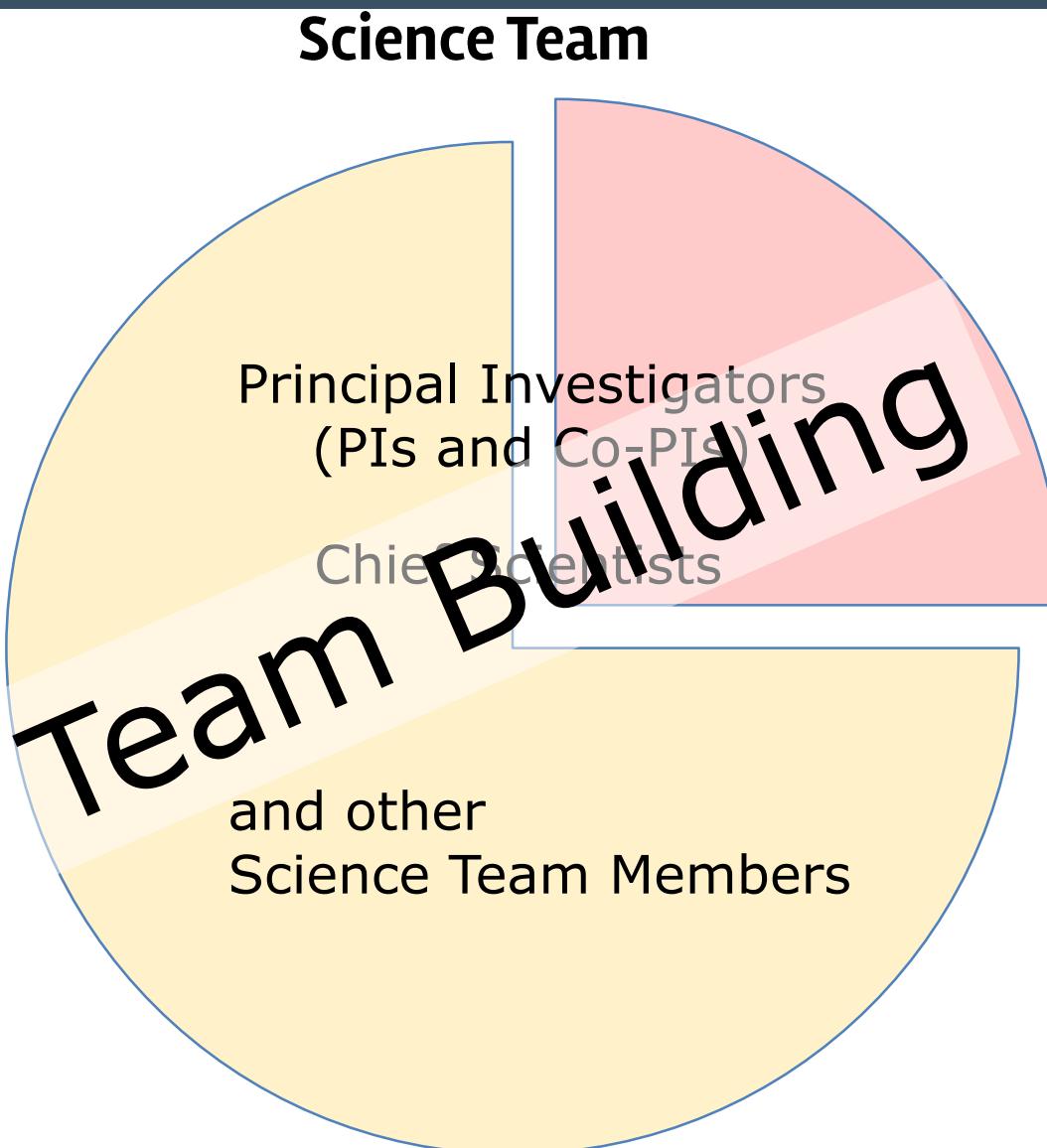


Computer Tomography (CT) Scanning

- on whole round cores
- achieving 3D models
- and 2D slices in all directions



Science Team and Personnel



Data Management

- two different user groups: **Public** and the **Science Team**.
- the Science Team members are defined by the PIs.
- each Science Team member will get a personal login (username and password).
- each Science Team member is allowed to access the internal project pages of the Web-site.
- each Science Team member is allowed to use the internal project data for their own investigations within the context of the project.

Data Management

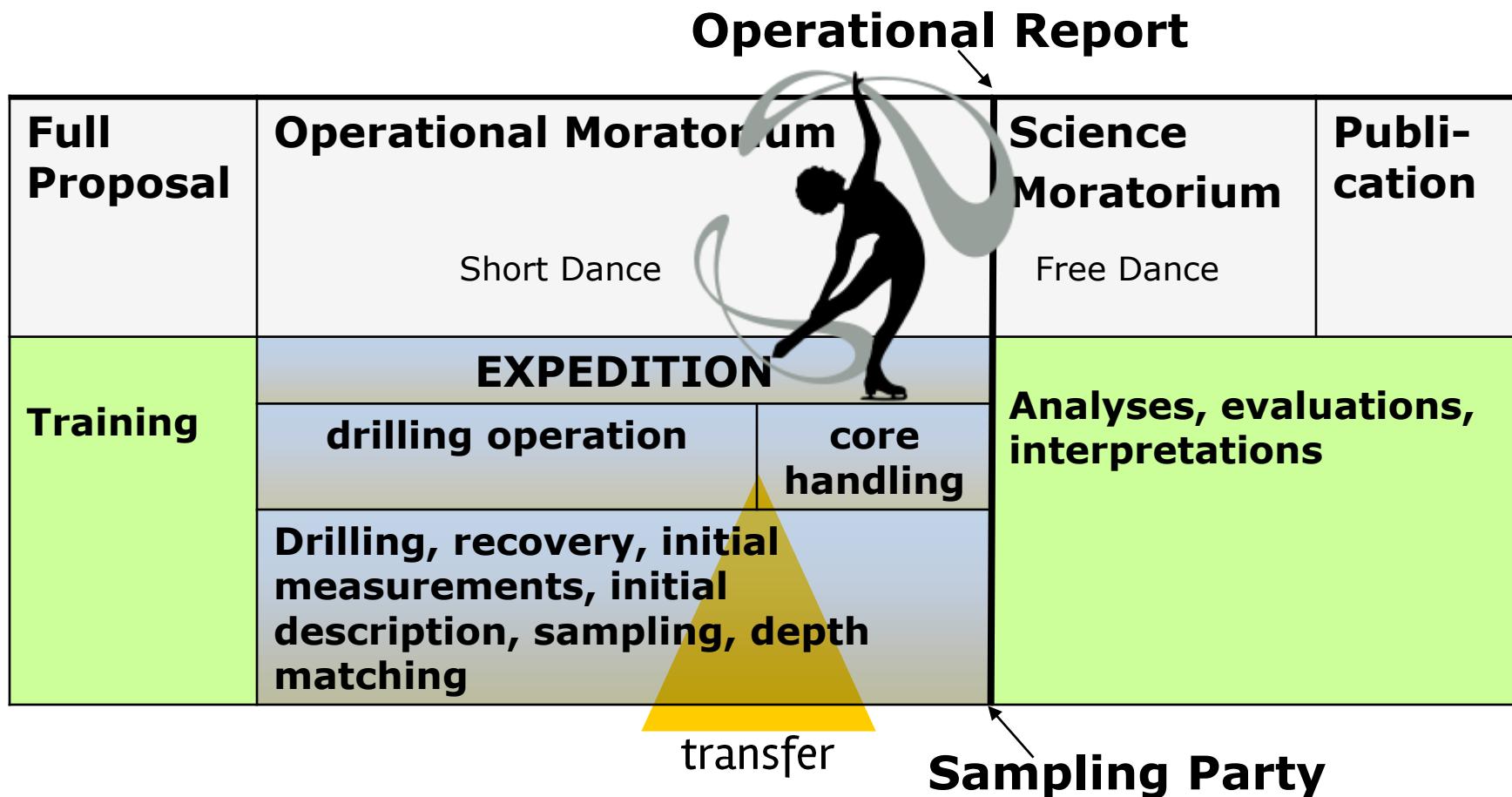
- each Science Team member is not allowed to use the internal project data for other projects.
- each Science Team member agrees to share own project data, results, and papers with the Science Team.
- each Science Team member is obliged to cite the information he/she uses.
- the composition of the Science Team and the time period of confidentiality have to be defined by the PIs.

Work Flow

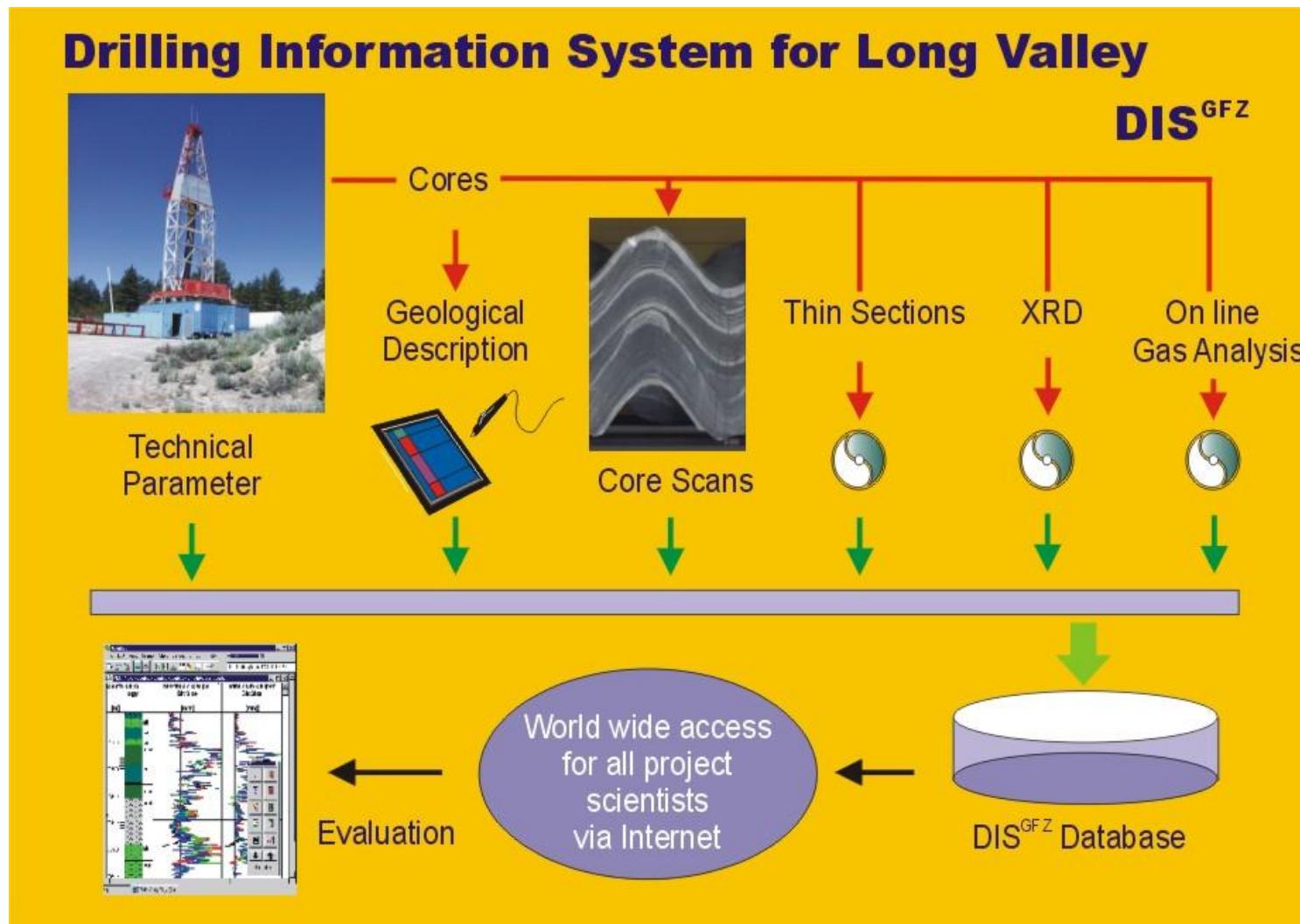
What comes next ?
Which are the dependencies ?



General Lifecycle of a Scientific Drilling Project



Common Architecture



General On-Site Core Logging Workflow

Core Recovery



- **Core Run #**
- **Driller Depth**
- **Drilled Length**
- **Time of Core On Deck**



General On-Site Core Logging Workflow



- **Core Run #**
- **Driller Depth**
- **Drilled Length**
- **Time of**
Core On Deck

Songliao Basin Drilling

Core Recovery



General On-Site Core Logging Workflow



Cleaning



Fitting



Marking



- Core Recovery
- Section #
- Section Length
- Location in Box

General On-Site Core Logging Workflow



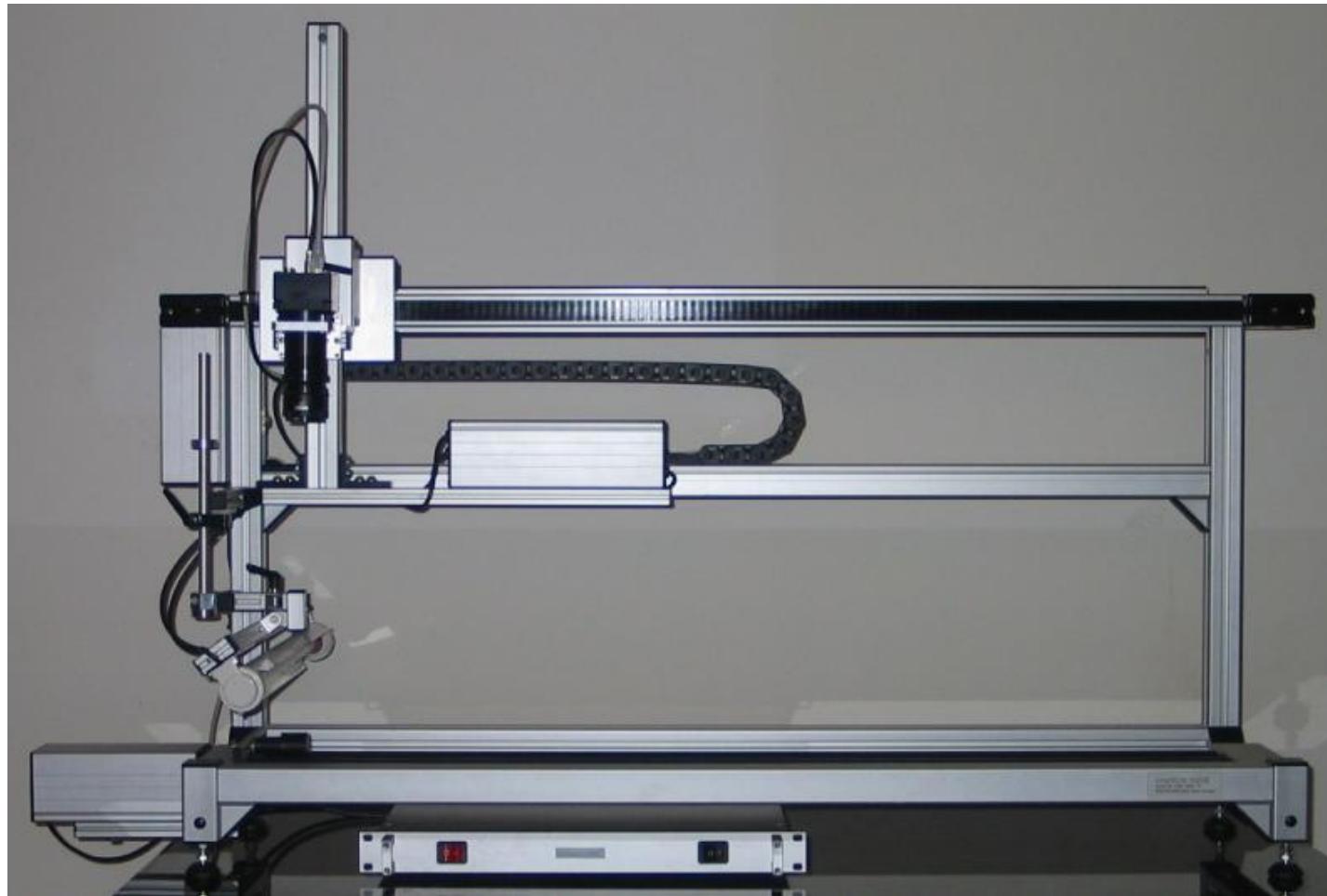
**Unrolled
Core
Scans**

Optional Measuring Devices with DIS-Interface



DMT CoreScan³

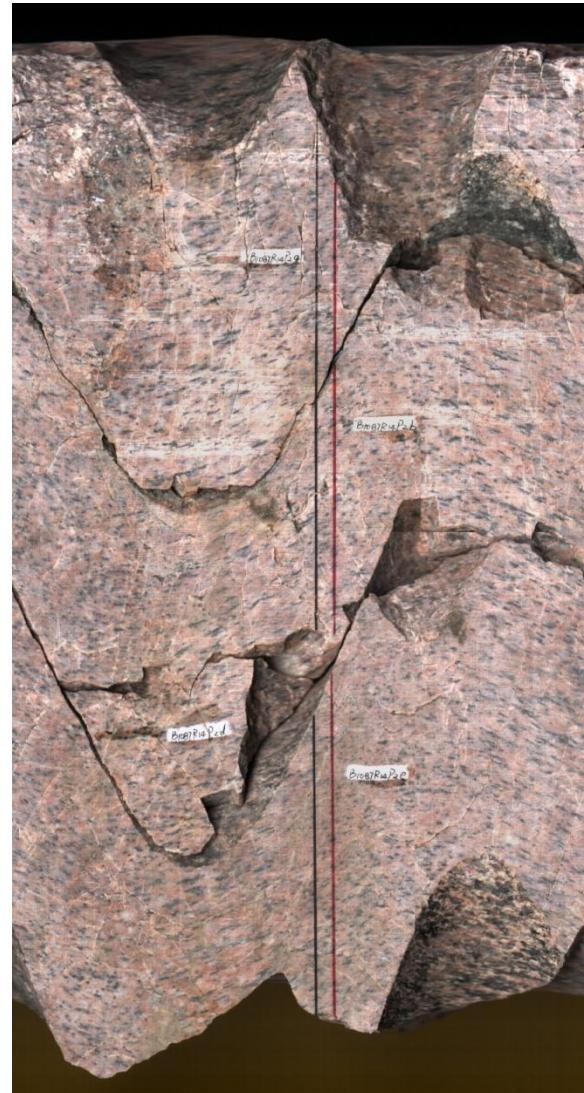
Optional Measuring Devices with DIS-Interface



smartcube®
Information Management Systems

Smart Camera Image Scanner smartCIS

General On-Site Core Logging Workflow



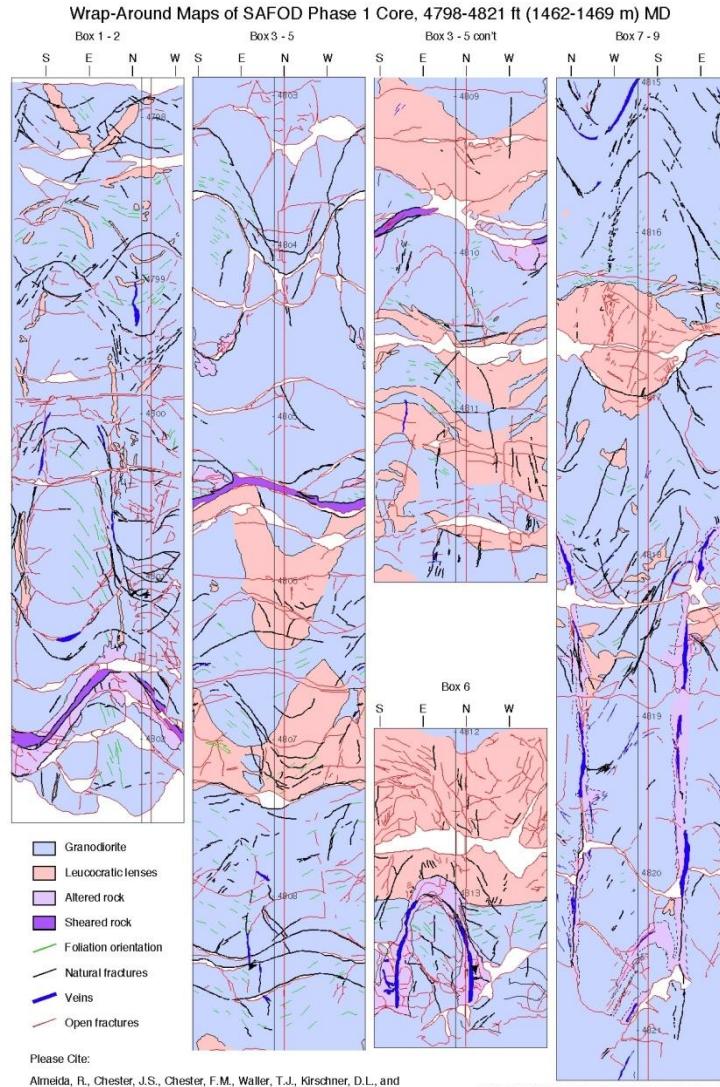
**Unrolled
Core Scans**

Wrap-Around Core Mapping



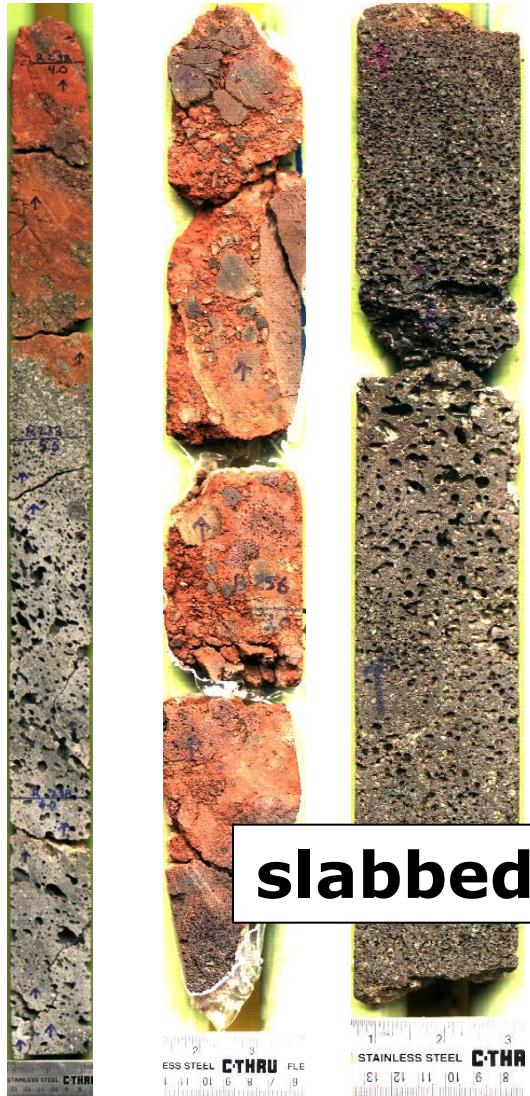
San Andreas Fault Zone, California, U.S.A.

Wrap-Around Core Mapping

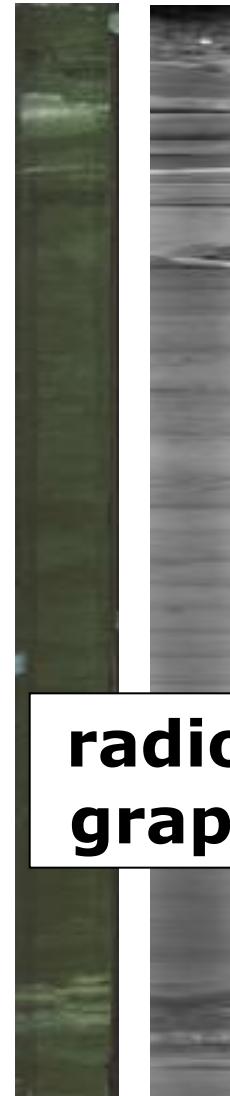


San Andreas Fault
 Zone, California,
 U.S.A.

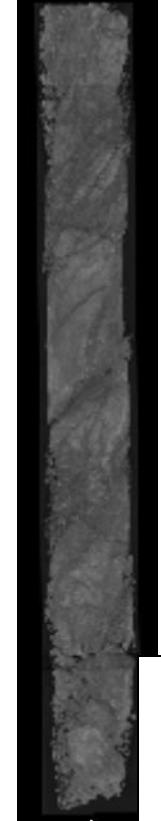
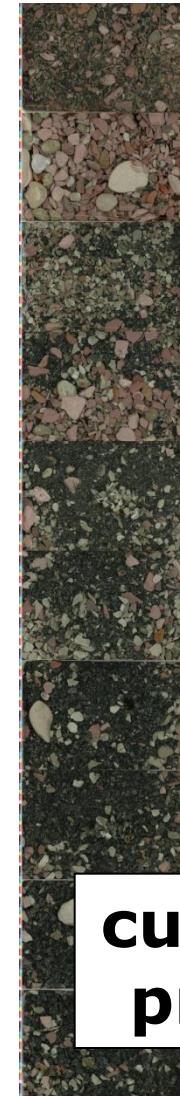
General On-Site Core Logging Workflow



radio-
graph

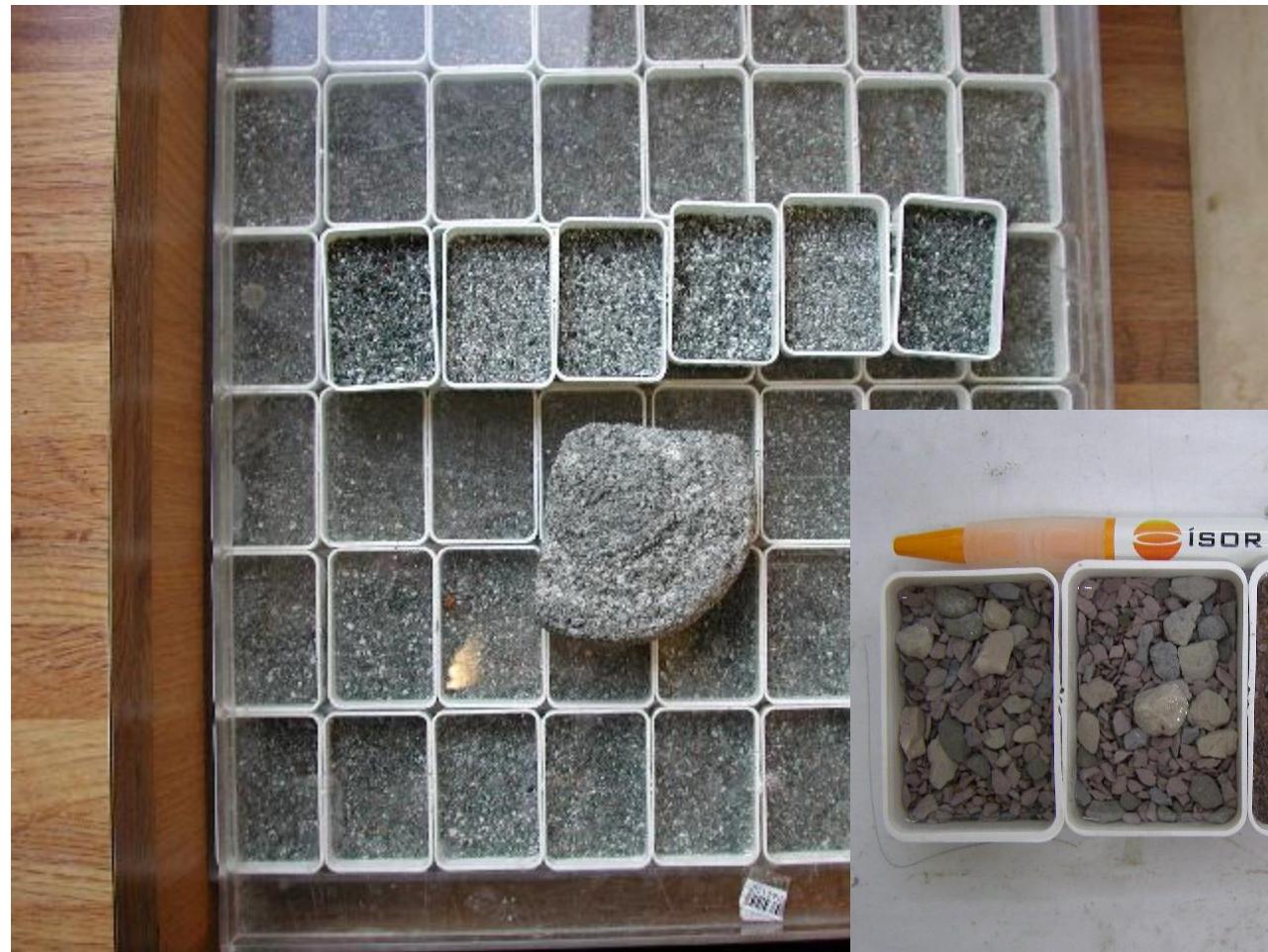


cuttings
profile



CT
scan

General On-Site Core Logging Workflow



Cuttings in
Match Boxes



IDDP-1, Iceland Deep Drilling Project

General On-Site Core Logging Workflow



Splitting

- Working Half
- Archive Half



General On-Site Core Logging Workflow

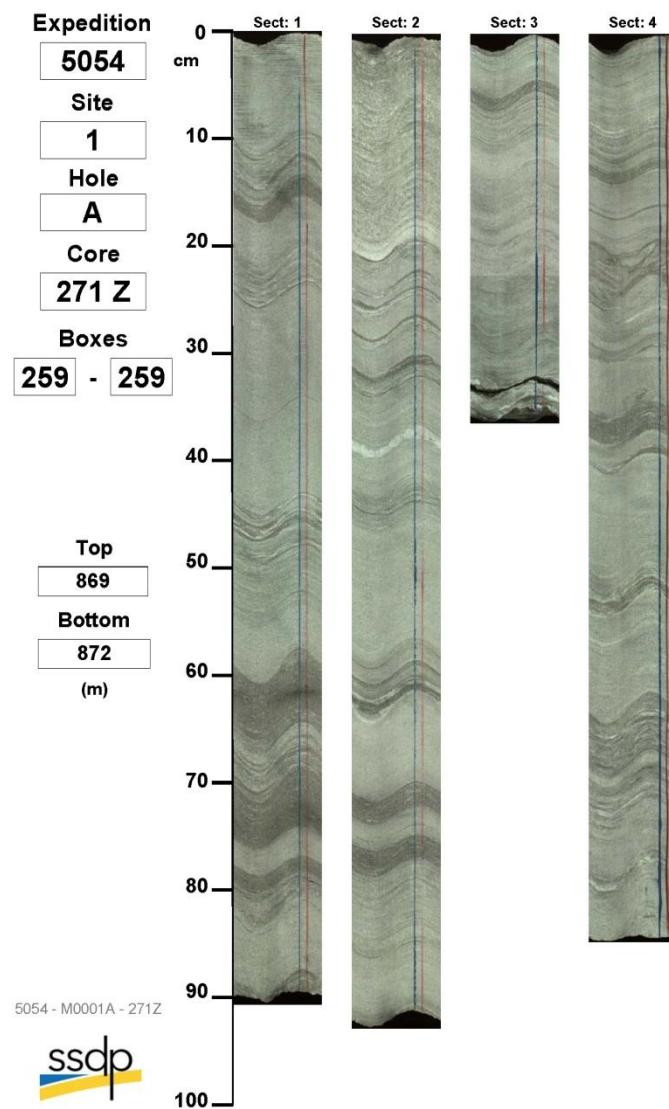


Core Box Images

Slabbed Core Scans



General On-Site Core Logging Workflow





General On-Site Core Logging Workflow



General On-Site Core Logging Workflow

Initial Lithological Description

optional

- Paperforms
- digital Input-forms
- Datapumps for spread sheets
- Image Annotationen
- graphical initial description using
 - PSICAT
 - Corelyzer



General On-Site Core Logging Workflow

PSICAT

File Edit View Help

5011_1_A

	4_2	5_1	7_1	15_1	18_3	21_2	21_3	50_2	46_1	44_3	35_1
30_2											
30_3											
30_4											
31_1											
31_2											
32_1											
32_2											
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41_5											
42_1											
42_2											
42_3											
42_4											

cm Images Type Grain Size Structures Textures Components Color Description

72 layered

74 silt homogen... 2.5Y-4/1 75.30 cm-77.10 cm left top at 75.3cm, right top at 78.0cm; left bottom at 77.1cm, right bottom at 79.3cm

76 fine sand homogen... 2.5Y-5/2 77.10 cm-78.20 cm Tephra T5; left top at 77.1cm, right top at 79.3cm; left bottom at 78.2cm, right bottom at 80.6cm

78 silt homogen... 5Y-5/1 78.20 cm-101.20 cm bended, left top at 48.2cm, right top at 80.6cm; Tephra T5 at 79.6 to 85.8cm (volcaniclastic, fine sand, homogeneous, 2.5Y-5/2)

80

82

84

86

77.10 cm-78.20 cm

Depth: 77.100000 cm - 78.200000 cm

Unit Type: tephra

Lithology: siliciclastic % 100

Grain Size: fine sand None None

Structures: homogeneous None None

Textures: None None None

Components: None None None

Color: 2.5Y-5/2

Description: Tephra T5; left top at 77.1cm, right top at 79.3cm; left bottom at 78.2cm, right bottom at 80.6cm

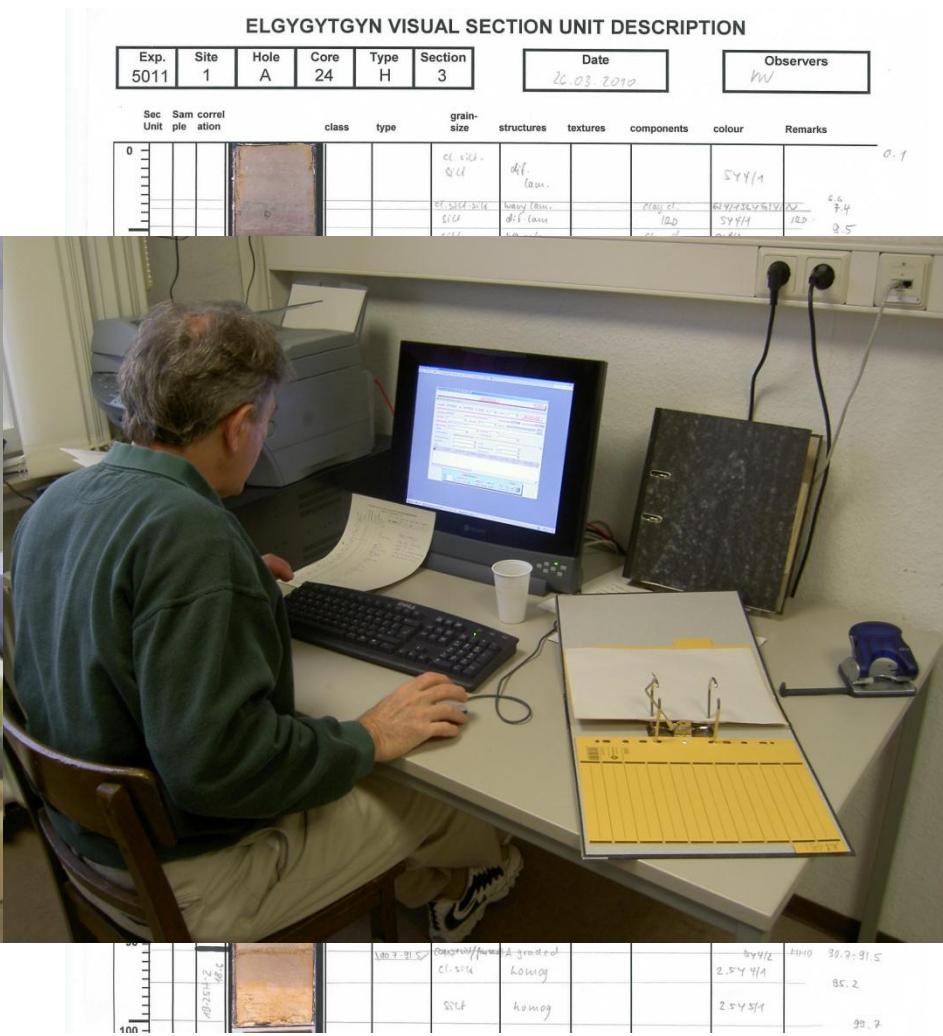
Opened section '35_1'

PSICAT

Visual Core Description

Google-Ergebnis... conze@gfz-pot... dis_basics_1 - ... TeamViewer

General On-Site Core Logging Workflow



Visual Core Description

General On-Site Core Logging Workflow

Cross Checking



General On-Site Core Logging Workflow

**Sampling
prohibited**



General On-Site Core Logging Workflow

Packing

Shipping

Archiving

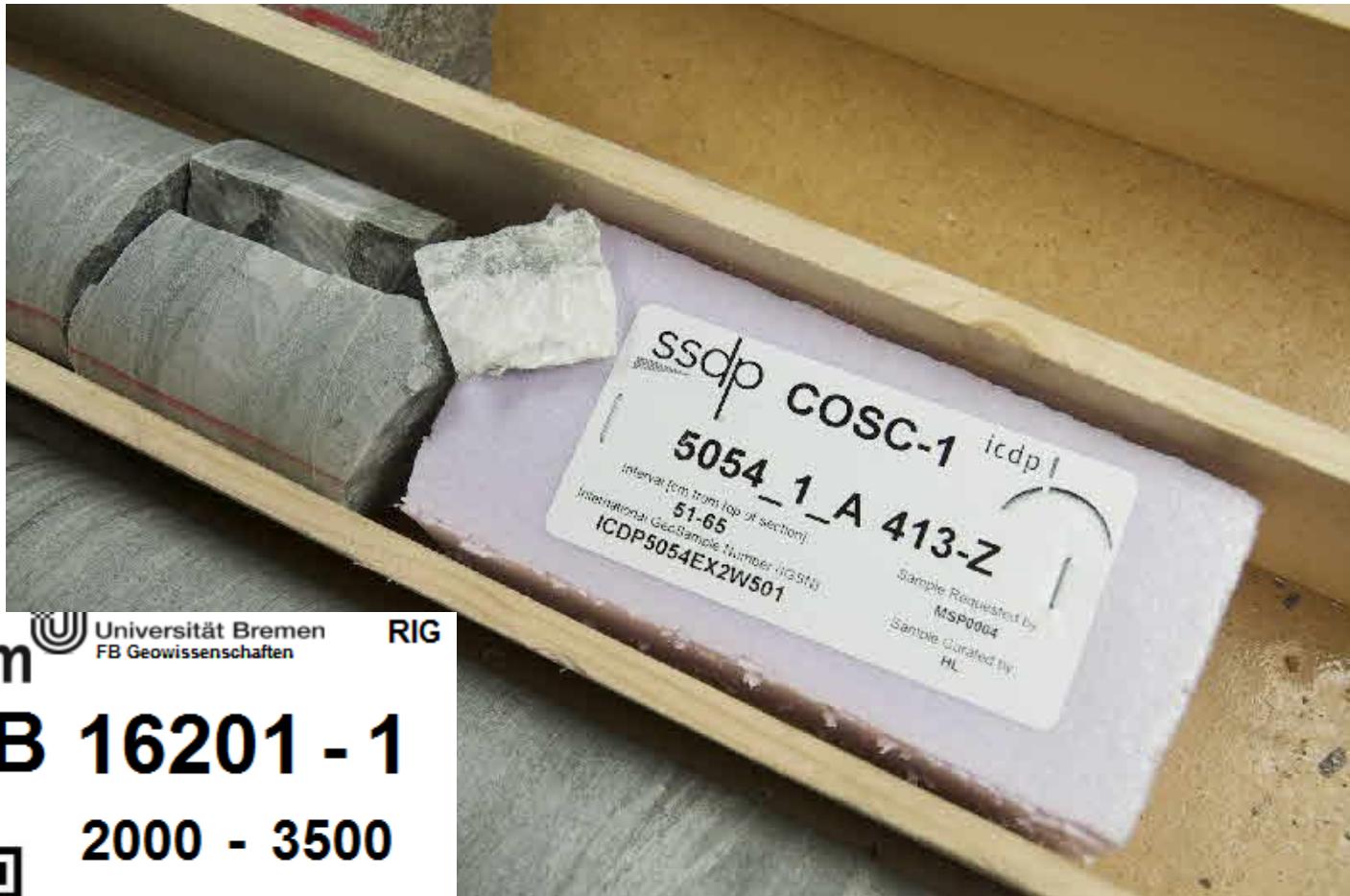


General On-Shore Core Logging Workflow

Sampling



General On-Shore Core Logging Workflow



marum



Universität Bremen
FB Geowissenschaften

RIG

GeoB 16201 - 1

2000 - 3500



W

General On-Shore Core Logging Workflow

Sampling

DIS: data Input form for samples of expedition v.: 5.06

SAMPLE SUB SAMPLES

Expedition: COSC Site: 1 Hole: A Report SAMPLE - Input 

Repository:	Request:	Part:	Series:	Code:	Observer:	Core:	Section:	Half:	Top (cm):	Bot (cm):	Vol (%):
BGR	COSC0035	A	Undefined	—	TK	79	3	WR	48	55	50

Remarks: Top MBSF(m): Top MCD (m): IGSN:
325.31 324.33 ICDP5054EXJG601

Sample	Repos.	Request	Part	Series	Code	Obs.	Exp.	Site	Hole	Core	Sec.	Half	Top	Bot.	Vol	Remarks
8360	BGR	COSC0035	A	Undefined	—	TK	5054	1	A	671	1	WR	0	33	100	
8361	BGR	COSC0035	A	Undefined	—	TK	5054	1	A	674	3	WR	63	81	50	
8362	BGR	COSC0035	A	Undefined	—	TK	5054	1	A	683	3	WR	68	93	50	
8363	BGR	COSC0035	A	Undefined	—	TK	5054	1	A	683	4	WR	30	45	50	
8364	BGR	COSC0035	A	Undefined	—	TK	5054	1	A	684	6	WR	25	39	50	
8365	BGR	COSC0035	A	Undefined	—	TK	5054	1	A	691	2	WR	0	21	50	
8366	BGR	COSC0035	A	Undefined	—	TK	5054	1	A	690	6	WR	0	20	50	
8367	BGR	COSC0035	A	Undefined	—	TK	5054	1	A	691	5	WR	33	41	50	
8368	BGR	COSC0035	A	Undefined	—	TK	5054	1	A	694	6	WR	50	75	50	
8369	BGR	COSC0035	A	Undefined	—	TK	5054	1	A	696	1	WR	27	54	50	
8370	BGR	COSC0035	A	Undefined	—	TK	5054	1	A	696	4	WR	35	55	50	
8371	BGR	COSC0035	A	Undefined	—	TK	5054	1	A	79	3	WR	48	55	50	

Data Record (F6) (F9) (F11) (F12) (Del) Sample Series Form

No. <input type="text" value="679"/>	Co. <input type="text" value="679"/>								Interval: <input type="text" value="0 cm"/>	Count: <input type="text" value="1"/>													
<input type="button" value="Show All"/>				<input type="button" value="Save"/>				<input type="button" value="New"/>				<input type="button" value="Edit"/>				<input type="button" value="Cancel"/>				<input type="button" value="Delete"/>			



General On-Shore Core Logging Workflow



**Corelyzer
(CoreWall)**

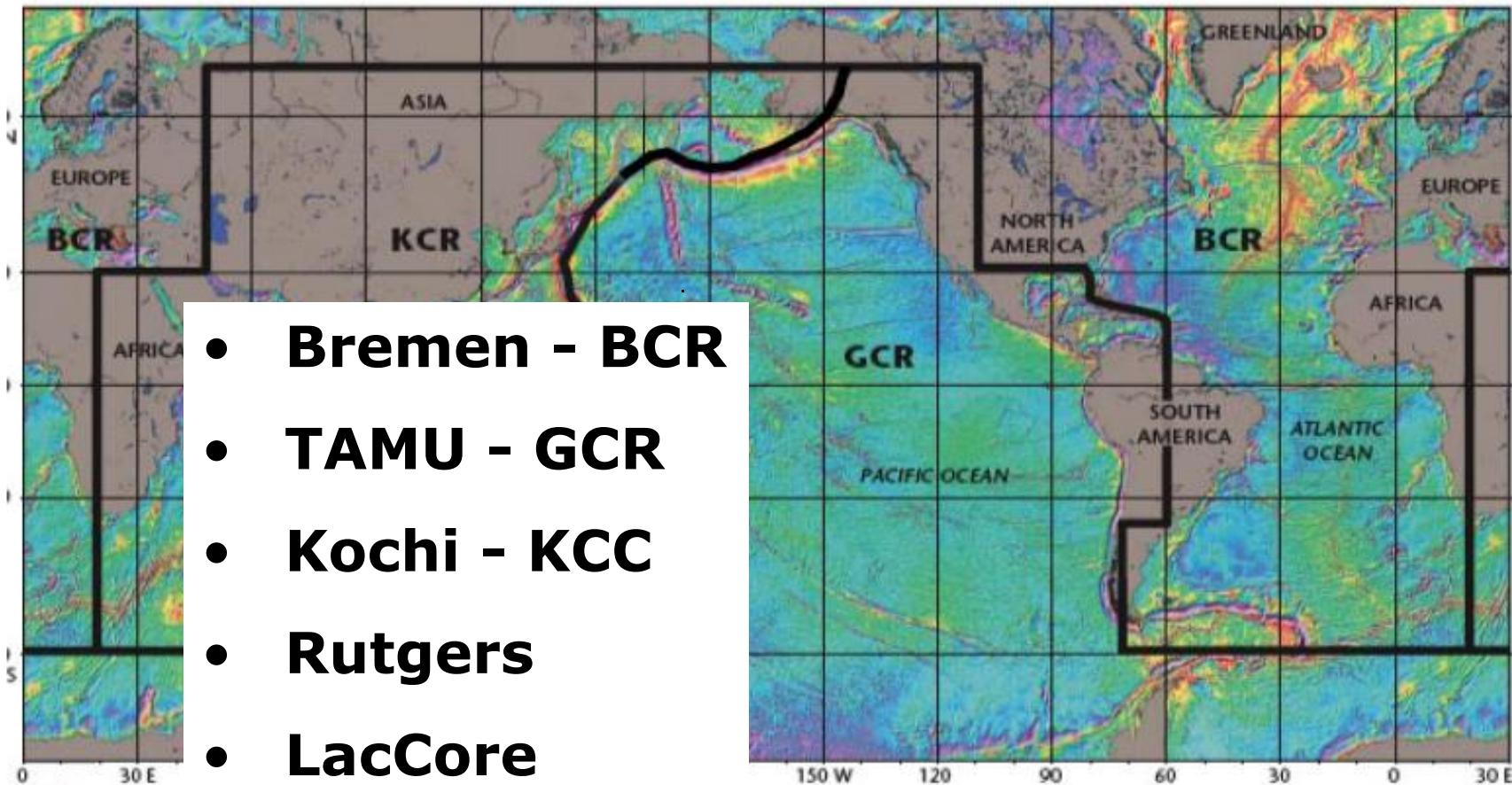
**Stratigraphic
Interpretation**



General On-Shore Core Logging Workflow

Core Repositories

- **Bremen - BCR**
- **TAMU - GCR**
- **Kochi - KCC**
- **Rutgers**
- **LacCore**
- **Berlin**



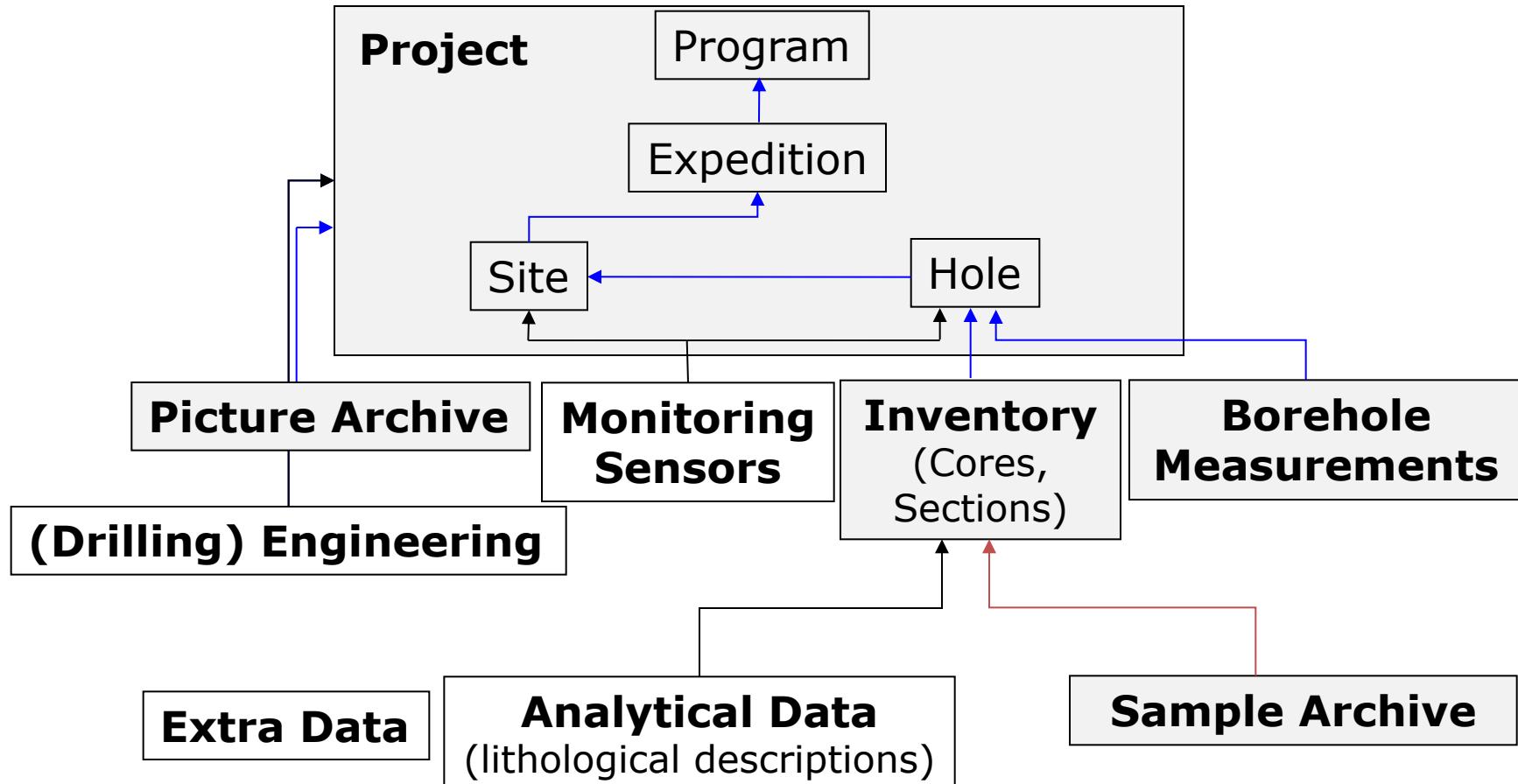
Data Model

Which entities and relationships exist ?

Naming Conventions ?

Which additional information are
useful ?

DIS Kernel

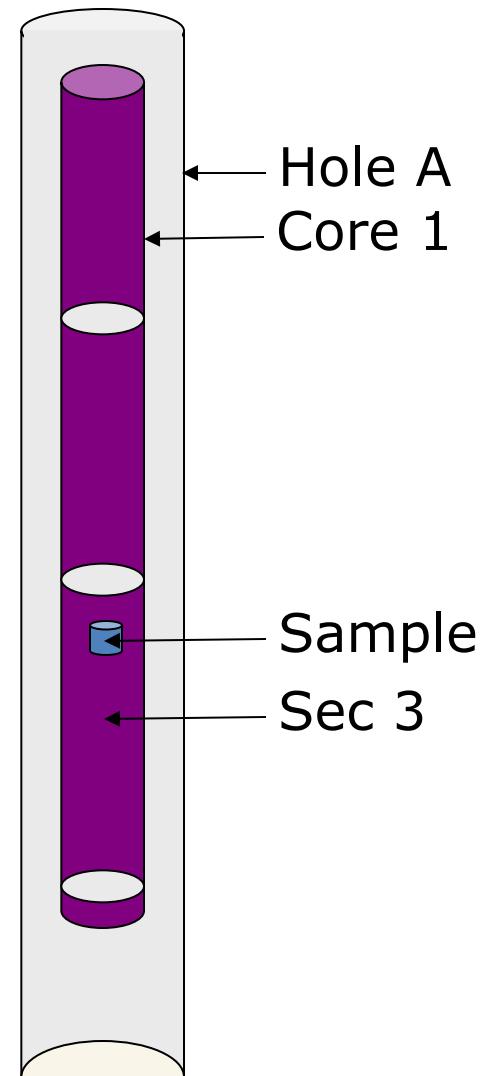


Naming Conventions

Expedition and Site followed by Hole, Core, Section,
Interval ...

5052-2-A-1 H-3 A ,10-12

- Hole A (A-Z)
- Core 1 (1-n)
- H-hydraulic, X-extended, R-rotary
- Section 3 (1-n) plus Core Catcher Section
- WR-whole round, A-archive half, W-working half
- interval (cm, relative to top of section)



Naming Conventions

Expedition and Site followed by Hole, Core, Section, Interval

...

5052-2-B-45H-3



ICDP Information Network

How to get access to ICDP
Information and Data ?
What are the services ?



Information System for ICDP Projects

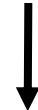
Drilling Information System (DIS)

= data acquisition



Web Site within the ICDP Information Network

= data dissemination



Datasets in Scientific Drilling Database (PANGAEA / SDDDB)

= data publication



[PROFILE](#) [SUPPORT](#) [PROJECTS](#)

SOCIETAL CHALLENGES

CLIMATE & ECOSYSTEMS

PALEOCLIMATE

DEEP LIFE

IMPACT STRUCTURES

VOLCANOES

SUSTAINABLE GEORESOURCES

DEEP LIFE

VOLCANOES

ELEMENT CYCLES

PLATE MARGINS

NATURAL HAZARDS

FAULTS

VOLCANOES

IMPACT STRUCTURES

PLATE MARGINS



NOW: CHECK OUT THE
CONFERENCE 2013 ➤

MEDIA | OUTREACH

[SEARCH](#)  [LOGIN](#) 

HIGHLIGHTS

HEAT AND MASS TRANSPORT

Volcanism, Tectonics, and Heat Flow in the Wake of the Yellowstone Mantle Plume



The Yellowstone-Snake River Plain (YSRP) volcanic province is the world's best modern example of a time-transgressive hotspot track beneath continental crust.

➤ [READ MORE](#)

GLOBAL CYCLES AND CATASTROPHIC EVENTS

Drilling the subsurface of lakes as archives of global cycles and catastrophic events



In the last decade, a series of drilling projects investigated the subsurface of lakes in order to reconstruct past environmental and climatic changes stored in the sediments, but also the genesis and evolution of the lake basins often tied to catastrophic processes.

➤ [READ MORE](#)

UPDATES

COLORADO DRILLING IN NATURE NEWS

➤ by Alexandra Witze Oct 1, 2013

SCIENTIFIC DRILLING VOLUME 16 NOW ONLINE AVAILABLE

➤ hosted by COPERNICUS Publications

HSPDP IN SCIENCE

➤ HSPDP is featured in two articles in a special issue of the August 2nd edition of Science

EVENTS

ICDP SCIENCE CONFERENCE 2013

➤ November 11 to 14, 2013 in Potsdam, Germany

AGU 2013 FALL MEETING

➤ December 9 to 13, 2013 in San Francisco, U.S.A.

IODP – ICDP COLLOQUIUM 2014

➤ March 17 to 19, 2014 in Erlangen, Germany

EGU GENERAL ASSEMBLY 2014

➤ 27 April–2 May, 2014 in Vienna, Austria

DRILLING THE BUSHVELD COMPLEX

➤ September 7–9, 2014 in Johannesburg, South Africa

QUICKLAKEH 2014

➤ in Turkey, September 15–19, 2014

- ~8000 users
- more than 4000 registered users
- in 60 user groups or projects

Web Site for Scientific Drilling Projects

PROFILE **SUPPORT** **PROJECTS** **PROPOSALS** **MEMBERSHIP**

MEDIA | OUTREACH

SEARCH

RONZE

EUROPE

[Map of Europe](#)

[Alpine](#)

[Are-Jarpen](#)

[Campi Flegrei](#)

[Central Apennines](#)

[Corinth](#)

[Crete](#)

[Dead Sea](#)

[Eger](#)

[Erzgebirge](#)

[Fennoscandia](#)

[Iceland](#)

[Imandra](#)

[Kola](#)

[Krafla](#)

Description	Location	Identifiers
Scientific Collaboration On Past Speciation Conditions in Lake Ohrid (SCOPSCO) (SCOPSCO)		
» SCOPSCO proposal abstract		
Geologic age:	quaternary	
Number of drillsites (drillholes):	4(14)	
Drilled length:	2708.5 m	
Cored length:	2720.1 m	
Core recovered, length:	2207.9 m	
Cored length / Total length ratio:	81.17%	
Core recovered / Total length ratio:	81.52%	

Principal Inv. (PIs)

CoPIs

Bernhard Wagner
University of Cologne, Institute of Geology and Mineralogy,
Quaternary Geology
Thomas Wilke
University of Giessen, Department of Animal Ecology and
Systematics
Andon Grashani
Universiteti i Politeknik, Fakulteti i Geologjise dhe Minirave
Goce Kostoski
Hydrobiological Institute Ohrid
Sebastian Krastel-Gudegast
University of Kiel, Institute of Geosciences, Department of
Geophysics, Marine Geophysics and Hydroacoustics

Ootokumpu

Sursey

Windischeschenbach

NATO
German Science Foundation (Deutsche
Forschungsgemeinschaft, DFG)



Project Link

Project Link - Lake Ohrid Drilling Project

» <http://ohrid.icdp-online.org>

Please use only this URL in any kind of publication (papers, posters, flyers, citations etc.). Only this URL can be guaranteed to be persistent over coming relaunches of the Web Site.

Daily News

Gallery

Internal Data

Internal Images

Data Description

Links

Operational Report

Publications

Scientists

Workshops

**Lake Ohrid Project
Web Site at
ohrid.icdp-online.org**

Timeline Status Repositories

Shallow holes have been done in summer 2011; the deep holes done in spring 2013

Keywords

Project Pages

albania, ancient lakes, climate, europe, ICDP-2009/03, lake drilling, lake ohrid, macedonia, OHRID, SCOPSCO, speciation, tectonic, volcanism,

Google Map

Coordinates



Benefits

Ready for Data Publishing



Information System for ICDP Projects

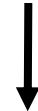
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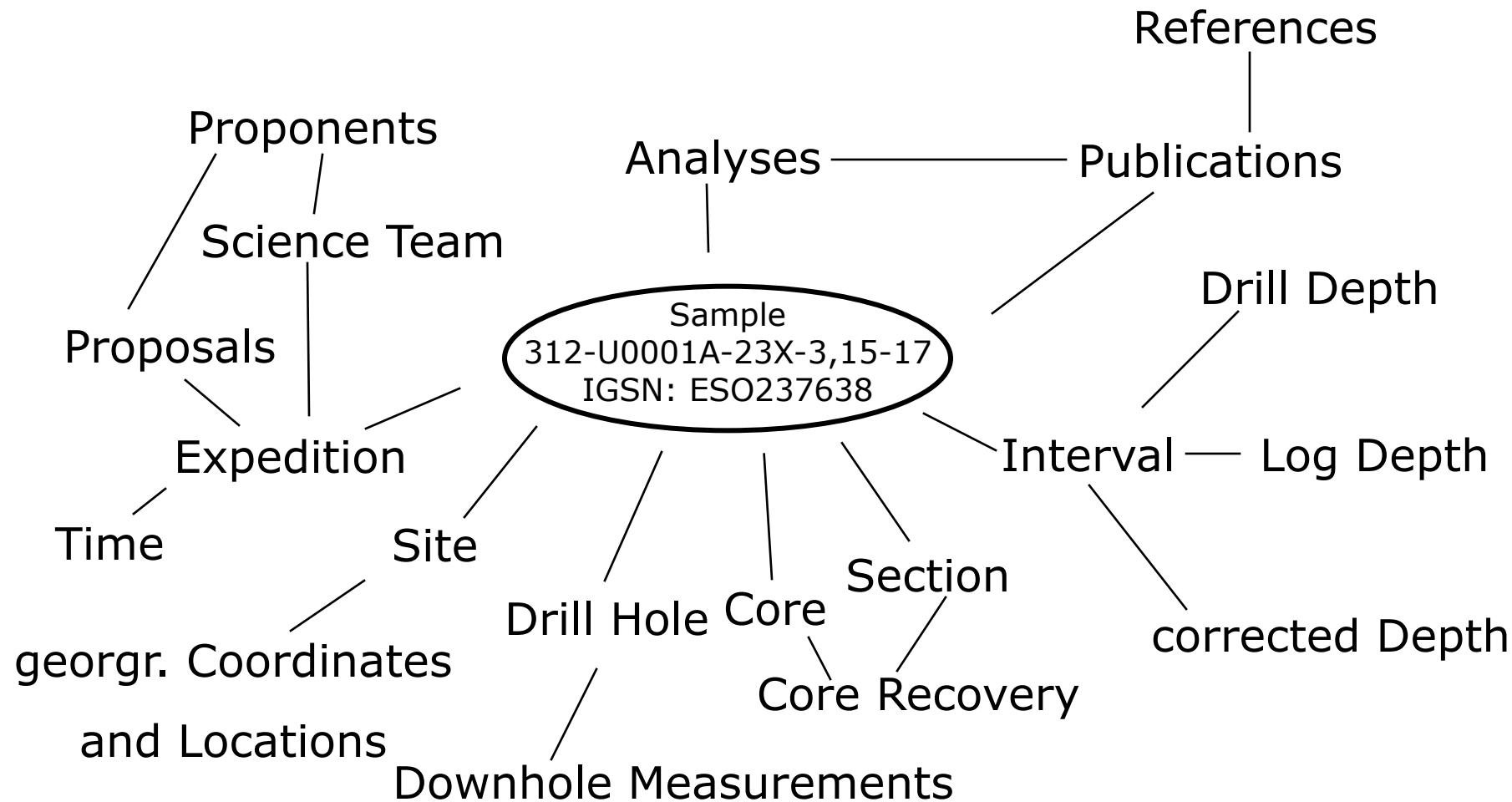


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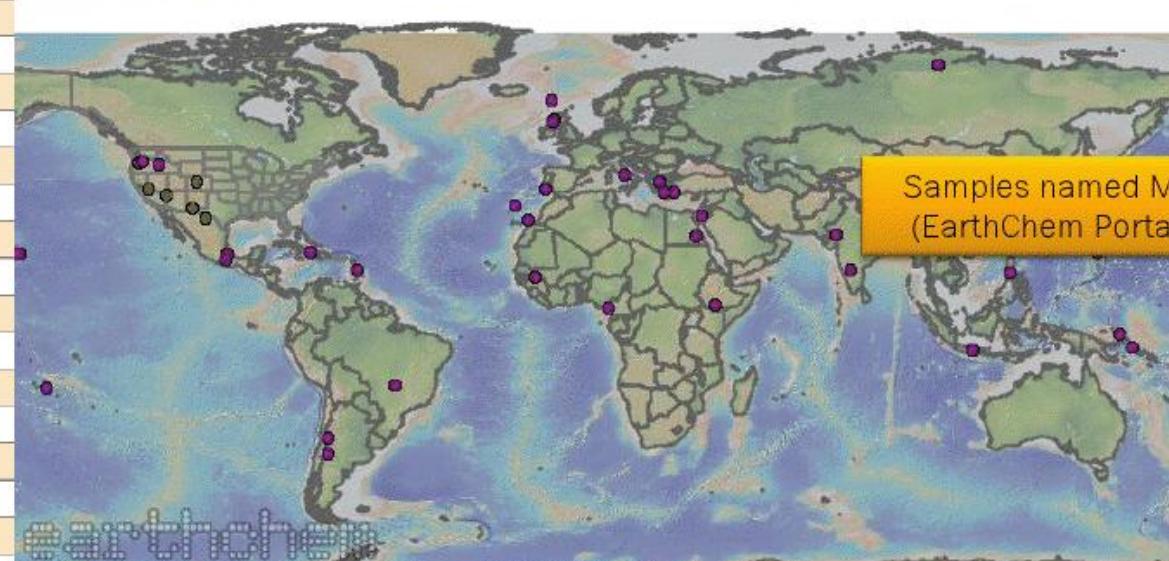


Benefits – Metadata Unlimited



Ambiguous Naming

M1	GEOROC	DETAILS	MAP	43.7	141.55	IGNEOUS : VOLCANIC : INTERMEDIATE : ANDESITE
M-1	GEOROC	DETAILS	MAP	44.2	145.1	IGNEOUS : VOLCANIC : MAFIC : BASALT
M1	GEOROC	DETAILS	MAP	38.5	140.5	IGNEOUS : VOLCANIC : NOT-GIVEN
M-1	GEOROC	DETAILS	MAP	44.4	-116.7	IGNEOUS : VOLCANIC : MAFIC : BASALT



Samples named M1
(EarthChem Portal)

M1	GEOROC	DETAILS	MAP	-46.53	108.23	IGNEOUS : PLUTONIC
M-1	GEOROC	DETAILS	MAP	26.5	101.7	IGNEOUS : PLUTONIC : ULTRAMAFIC : PERIDOTITE
M1	GEOROC	DETAILS	MAP	36.73	24.42	IGNEOUS : VOLCANIC : FELSIC : RHYOLITE
M-1 August	GEOROC	DETAILS	MAP	32.0222	130.682	IGNEOUS : VOLCANIC : INTERMEDIATE : ANDESITE

Benefits – Metadata Unlimited

Changing Names

Sample information

Identification:	PetDB Identifier: ARGAMPH-003
IGSN:	N/A
	AMPH D-3(SUN, 1980) D3(ENGEL, 1964) PD3(TATSUMOTO, 1985) PD3(TATSUMOTO, 1986) AMPH-D3(MACDOUGALL, 1986) AMPH D-3(SCHILLING, 1975) S-10(SUBBARAO, 1972)
Other Names:	PV D-3(ENGEL, 1965) AMPH-3D(PINEAU, 1983) AMPH 3-PD3(HART, 1971) PD-3(HEDGE, 1970) PD-3(MUEHLENBACH, 1972) AMPH3D(PINEAU, 1976) D-3(SCHILLING, 1971) D-3(SCHEIDECKER, 1981)
Sample Description:	Rock type: Igneous volcanic:mafic Classification: BASALT Description: Not Available Alteration: FRESH Age: PLEISTOCENE Archived at: Not Available
Sampling Information	Cruise: AMPHITRITE Date: Not Available Chief Scientist: Not Available Technique: Dredge Station: ARGAMPH-003
Location:	Latitude: 12.867°S Longitude: 110.95°W Elevation: -2952 Tectonic setting: SPREADING_CENTER Location: SPREADING_CENTER:EAST PACIFIC RISE Location Comment: Not Available



Different names for dredge sample 3 from the Amphitrite cruise

PetDB Identifier: ARGAMPH-003

IGSN: N/A

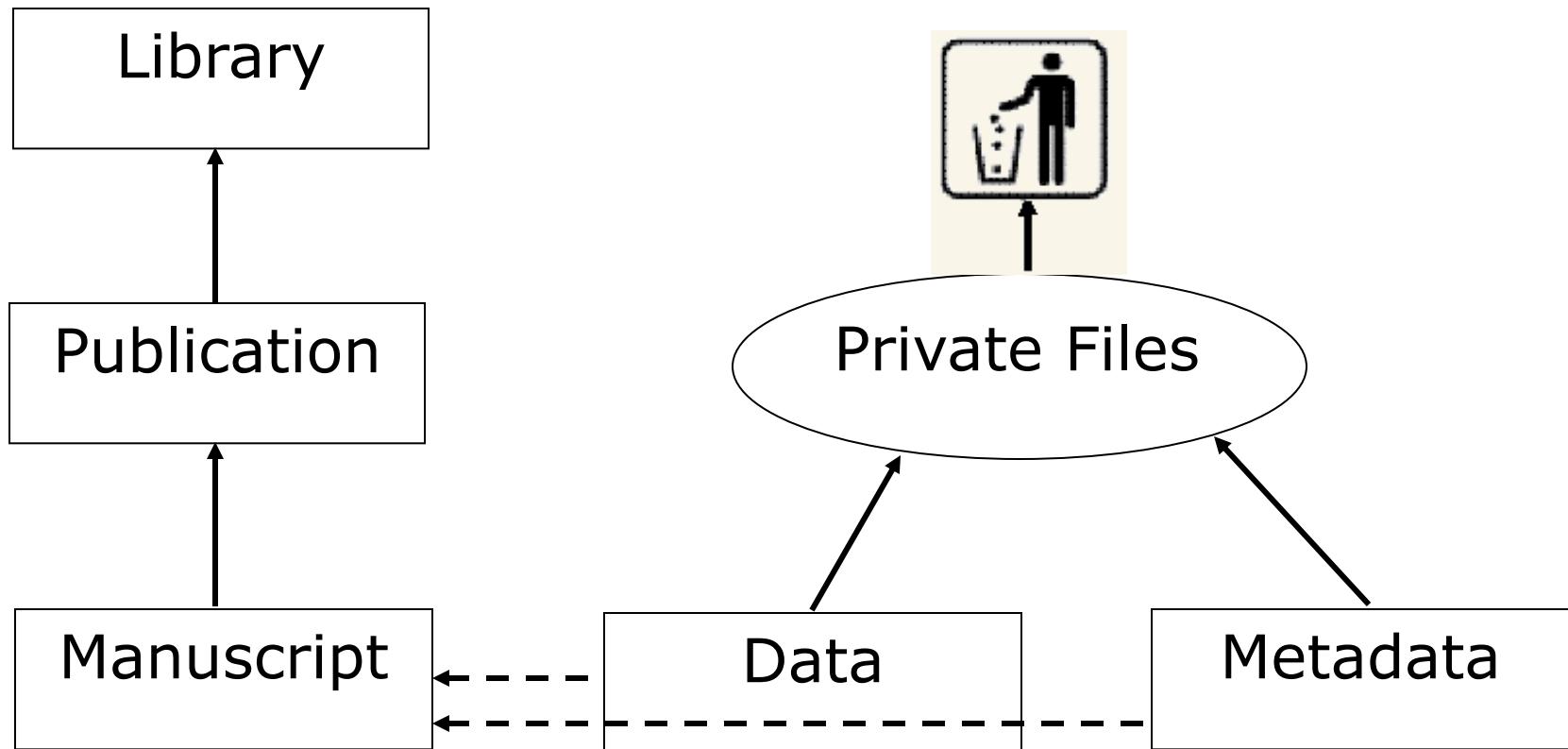
Other Names:

- AMPH D-3(SUN, 1980)
- D3(ENGEL, 1964)
- PD3(TATSUMOTO, 1985)
- PD3(TATSUMOTO, 1986)
- AMPH-D3(MACDOUGALL, 1986)
- AMPH D-3(SCHILLING, 1975)
- S-10(SUBBARAO, 1972)
- PV D-3(ENGEL, 1965)
- AMPH-3D(PINEAU, 1983)
- AMPH 3-PD3(HART, 1971)
- PD-3(HEDGE, 1970)
- PD-3(MUEHLENBACH, 1972)
- AMPH3D(PINEAU, 1976)
- D-3(SCHILLING, 1971)
- D-3(SCHEIDECKER, 1981)

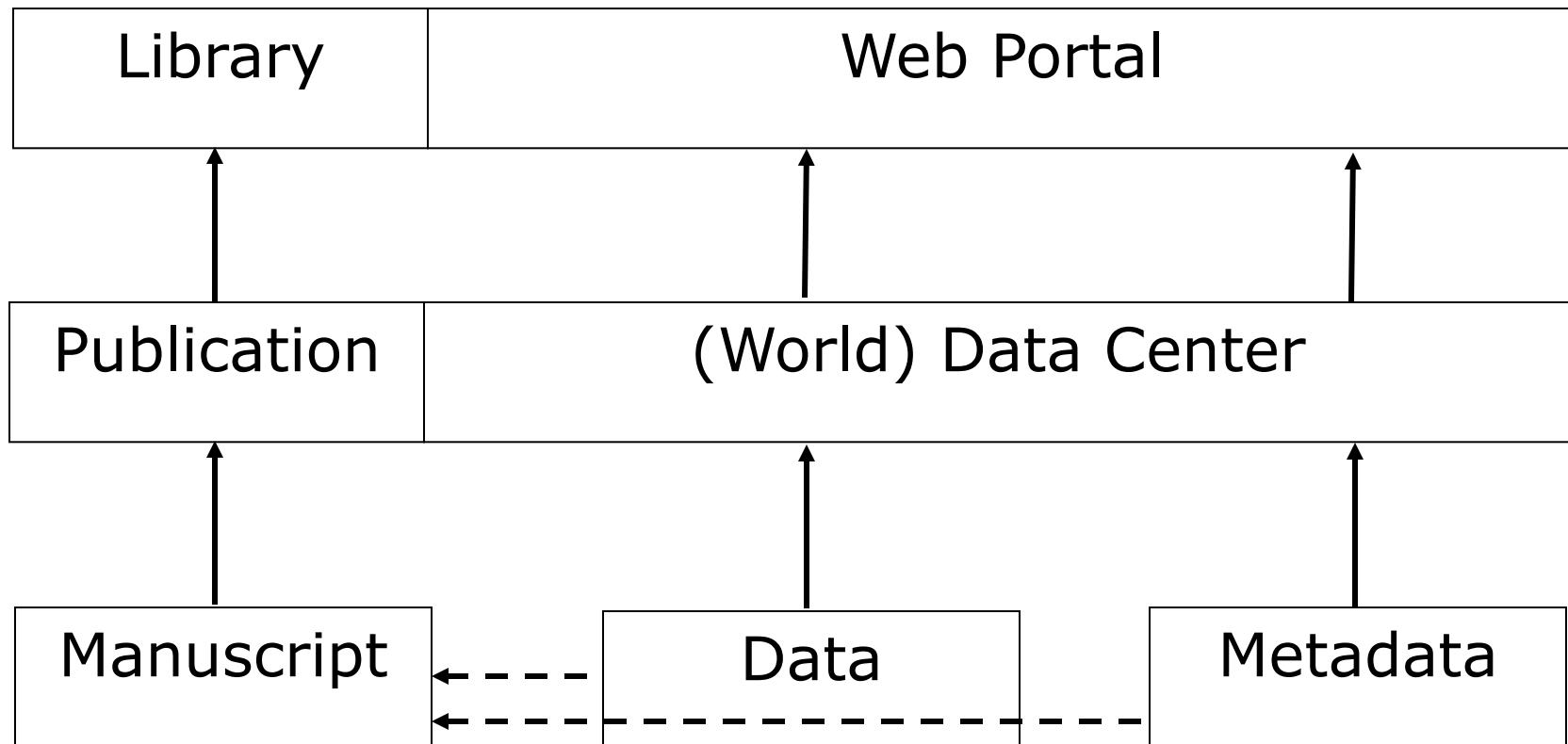
www.igsn.org

On courtesy of Kerstin Lehnert, LDEO

Benefits – Publication and Citation of Data



Benefits – Publication and Citation of Data



Unique Identifiers

- for published articles, journals, and monographs

DOI:

10.2204/iodp.sd.11.02.2011

- for published data sets

DOI: [10.1594/GFZ.SDDB.1071](https://doi.org/10.1594/GFZ.SDDB.1071)

- for published samples

IGSN: ICD237AG8

DOI: Digital Object Identifier

IGSN: International Geo Sample Number

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Science Reports

Scientific Drilling Into the San Andreas Fault Zone —An Overview of SAFOD's First Five Years

by Mark Zoback, Stephen Hickman, William Ellsworth,
and the SAFOD Science Team

doi:10.2204/fodp.sd.11.02.2011

Abstract

The San Andreas Fault Observatory at Depth (SAFOD) was drilled to study the physical and chemical processes controlling faulting and earthquake generation along an active, plate-bounding fault at depth. SAFOD is located near double-difference tomography, Zhang et al. (2009) determined a detailed Vp, Vs, and Vp/Vs model for the SAFOD

Detailed planning of a research experiment focused on drilling, sampling, and downhole measurements directly within the San Andreas Fault Zone began with an international workshop held in Asilomar, California in December 1992. This workshop highlighted the importance of deploying a permanent geophysical observatory within the crust, as indicated by the *in situ* stress and heat-flow measurements in the SAFOD Pilot Hole and Main Hole.

Figure 6. Photographs of the section of core 2 that crosses the SDZ (see Figs. 4 and 5) as they appear in the Photographic Atlas of the SAFOD Phase 3 (Table 1). The colored lettering indicates where samples were used for TS, XRD, and SEM presented in the Phase 3 Core Altas. Note that the center and bottom photos are of the core sections split in half. Measured depths in the sidebar are shown in feet (1 ft=30.48 cm).

The twenty-seven experimental deployments also guided the selection of sensors for the observatory and revealed mechanical and environmental issues that dictated the design of the observatory. The ambient temperature of up to 120°C at the planned depth of the observatory controlled the choice of downhole electronics and sensors. More seriously, the borehole fluid contains gases that penetrate past conventional O-rings and wireline insulation. Consequently, a design was

A photograph of a sunset over a calm sea. The sky is filled with wispy clouds colored in shades of orange, yellow, and blue. The horizon line is visible in the distance. Overlaid on the right side of the image is the word "End" in a large, bold, black sans-serif font.

End

References:

- Lorenz, Henning; Rosberg, Jan-Erik; Juhlin, Christopher; Bjelm, Leif; Almqvist, Bjarne; Berthet, Théo; Conze, Ronald; Gee, David G.; Klonowska, Iwona; Pascal, Christophe; Pedersen, Karsten; Roberts, Nick; Tsang, Chinfu (2015):
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- Lorenz, Henning; Rosberg, Jan-Erik; Juhlin, Christopher; Bjelm, Leif; Almqvist, Bjarne; Berthet, Théo; Conze, Ronald; Gee, David G.; Klonowska, Iwona; Pascal, Christophe; Pedersen, Karsten; Roberts, Nick; Tsang, Chinfu (2015):
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Operational Report about Phase 1 of the Collisional Orogeny in the Scandinavian Caledonides scientific drilling project (COSC-1).
GFZ German Research Centre for Geosciences, doi:[10.2312/ICDP.2015.002](https://doi.org/10.2312/ICDP.2015.002)

Useful Links:

1. Lab Procedures - LacCore Standard Operating Procedures:
<http://lrc.geo.umn.edu/laccore/analyses.html>
2. Core storage and sampling - BCR Practices and Procedures: <http://www.marum.de/Page3478.html>
3. Lake and Marine Drilling Planning and Operations Manual
http://www.dosecc.org/images/stories/DOSECC_pdbs/Lake_Marine_Manual-FINAL.pdf
4. International Ocean Discovery Program (IODP) – <http://www.iodp.org>
5. System for Earth Sample registration (SESAR) - <http://www.geosamples.org/>
6. Corelyzer, Correlator, CoreNavigator - <http://www.corewall.org/>
7. The Virtual Core Repository - <http://www.gesep.org/infrastruktur/kernlager/portal/>
8. PANGAEA - <http://www.pangaea.de/>
9. Scientific Earth Drilling Information Service (SEDIS) - <http://sedis.iodp.org/>
10. Scientific Drilling Journal - <http://www.scientific-drilling.net/>
11. ICDP Primer - <http://www.icdp-online.org/media/icdp-best-practice-brochure-primer/>



Previous Expeditions

ICDP

- Long Valley, California, USA
- Hilo, Hawaii, USA
- Koolau, Hawaii, USA
- Chicxulub, Mexico
- Donghai, PR China
- Unzen, Japan
- Mallik, NWT, Canada
- KTB-Hydraulic, Germany
- SAFOD, Parkfield, California, USA
- Chelungpu, Taiwan ROC
- Lake Malawi, Malawi
- Lake Bosumtwi, Ghana
- Lake Qinghai, China
- Chesapeake Bay, Virginia, USA
- Lake Peten Itza, Guatemala
- FAR-DEEP in Karelia, Russia
- Iceland
- Lake Potrok Aike, Argentina
- Lake El'gygytgyn, Russia
- Lake Van, Turkey

- Dead Sea, Israel
- Snake River (HOTSPOT), Idaho, USA
- Barberton I, South Africa
- Northern Anatolian Fault Zone, Turkey
- Campi Flegrei, Italy
- Lake Ohrid, Macedonia
- East African Rift, Kenya
- Colorado Plateau, Colorado, USA
- Fennoscandia (COSC), Scandinavia
- Alpine Fault Zone, New Zealand
- Lake Towuti, Indonesia
- Lake Junín, Peru

ECORD

- Arctic Coring Expedition (ACEX)
- Tahiti Sea Level Change
- New Jersey Shallow Shelf, USA
- Great Barrier Reef, Australia
- Bighorn Basin, Wyoming, USA
- Baltic Sea Expedition



Upcoming Expeditions

On Schedule

ECORD

- Chicxulub Offshore, Mexico

ICDP

- Koyna Dam, India
- Oman Ophiolites

In Preparation

ICDP

- Tanzania Neogene (TOPIC)
- Eger Rift, Czech Republic
- Mochras, Wales UK
- Surtsey, Iceland
- Krafla, Iceland
- Colonia, Brazil
- Trans Amazon, Brazil
- IDRAS, SE Asia
- Nam Co Lake, China
- Lake Challa, Tanzania/Kenya
- Overdeepened Valleys, European Alpes
- Lake Chalco, Mexico
- CoRef, Japan
- Sevier Basin, USA
- Bushveld, South Africa