



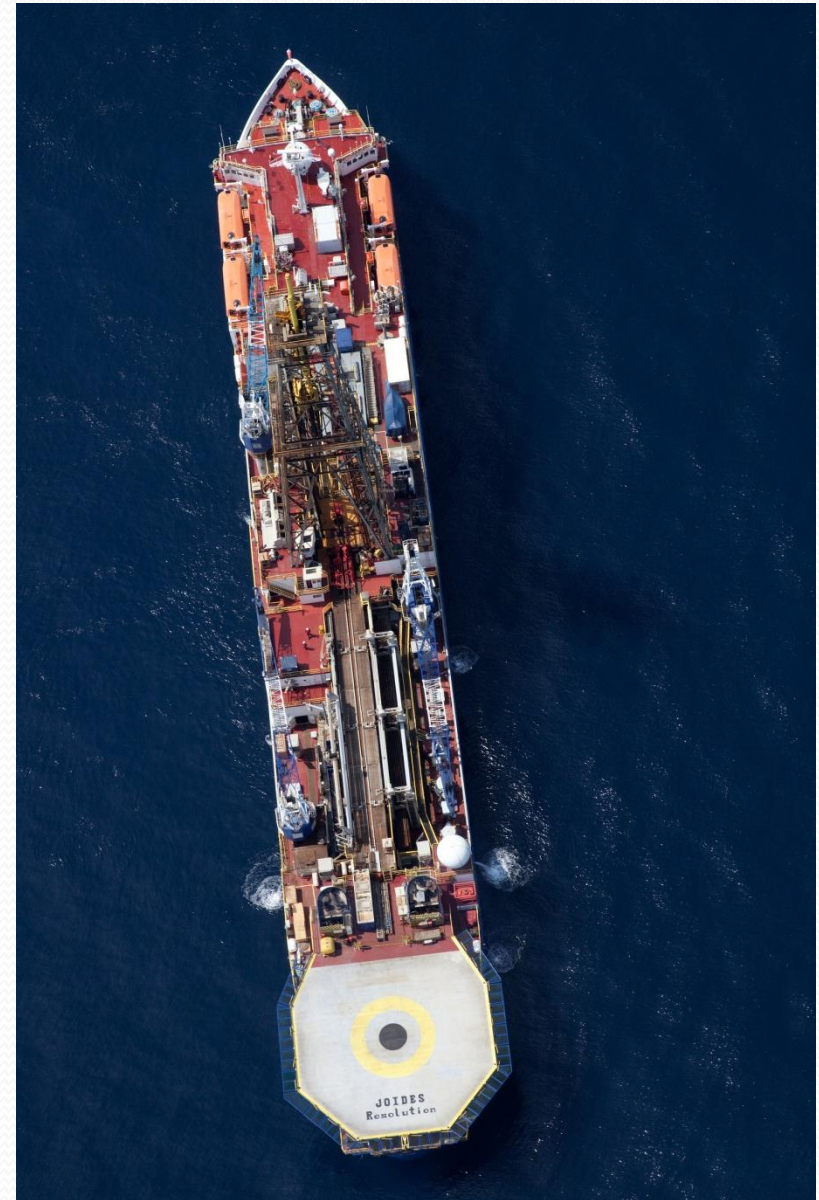
IODP GULF COAST REPOSITORY



16 May, 2011

History of ocean drilling

- Deep Sea Drilling Project (DSDP)
- Ocean Drilling Program (ODP)
- Integrated Ocean Drilling Program (IODP)



Funding

- IODP is funded by six entities acting as international partners:
- **The U.S. National Science Foundation (NSF) and Japan's Ministry of Education, Culture, Sports, Science and Technology (MEXT) are *Lead Agencies*.**
- **The European Consortium for Ocean Research Drilling (ECORD) is a *Contributing Member*.**
- **The People's Republic of China Ministry of Science and Technology (MOST) is an *Associate Member*.**
- **Interim Asian Consortium, represented by the Korea Institute of Geoscience and Mineral Resources (KIGRAM), is an *Associate Member*.**
- **Australian-New Zealand IODP Consortium (ANZIC)**
- **India Ministry of Earth Science (MoES)**

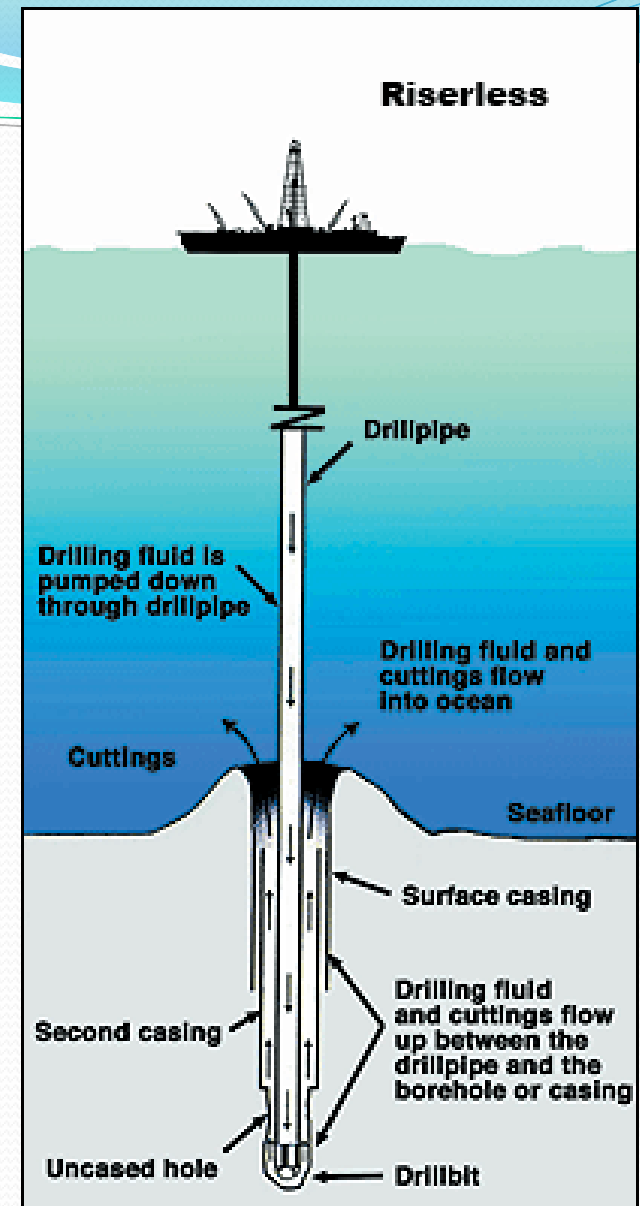
Drilling platforms for Program

- IODP is a multi-platform marine research program involving a riserless drilling vessel, a riser drilling vessel, and mission-specific platforms. Three Implementing Organizations (IOs), in Japan, the USA, and Europe, serve as science operators of the various ships and platforms.



Riserless drilling

Riserless drilling technology uses seawater as the primary drilling fluid, which is pumped down through the drillpipe. The seawater cleans and cools the drill bit and lifts cuttings out of the hole, piling them in a cone around the hole.



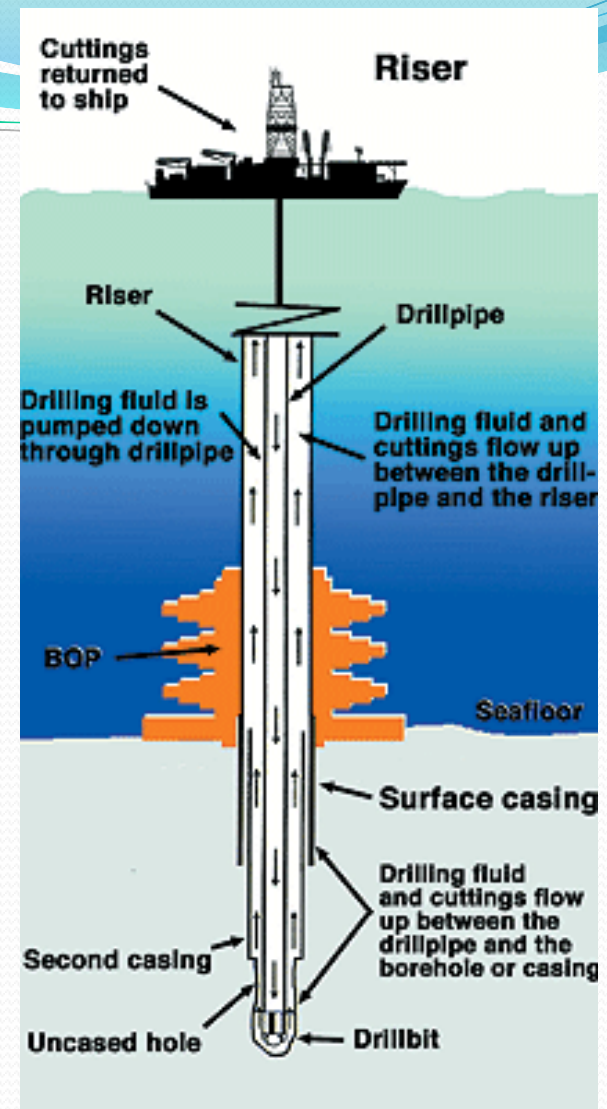
Mission-specific platform

- **European Consortium for Ocean Research Drilling),** represents scientific institutions in 17 nations
- The British Geological Survey: acts as consortium coordinator
- University of Bremen: oversee curation duties and core repository facilities as well as data management tasks
- European Petrophysics Consortium: logging and petrophysical activities



Riser vessel

- **The Chikyu** - means "Planet Earth" in Japanese. Its unique features expand IODP's capability to access new regions beneath the Earth's crust.



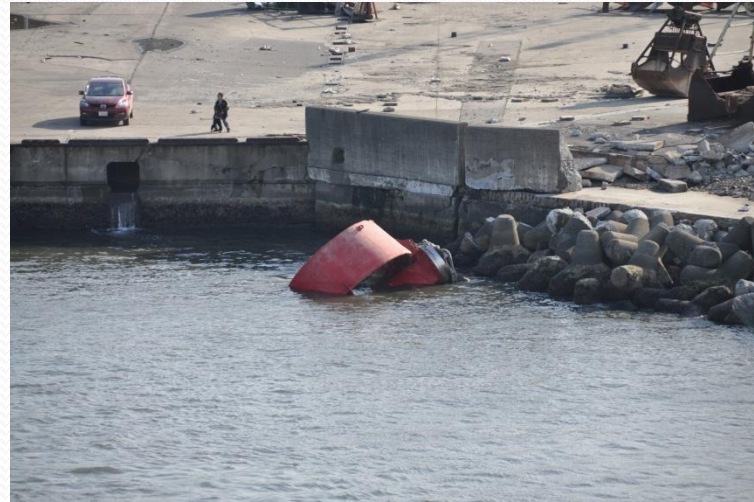
Chikyū and M9.0 Earthquake and Tsunami



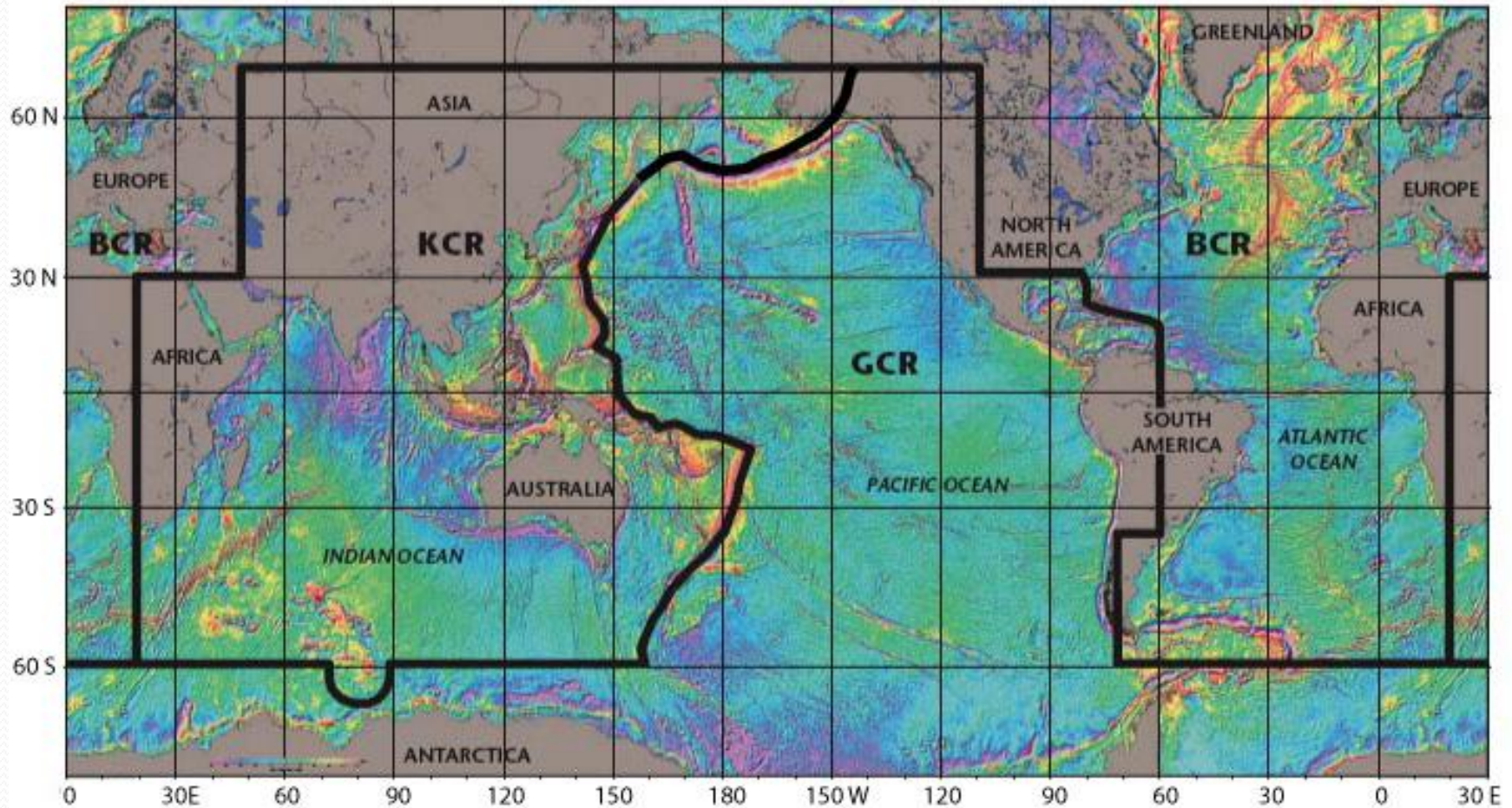
Around Hachinohe port



Thruster damage



Distribution of core



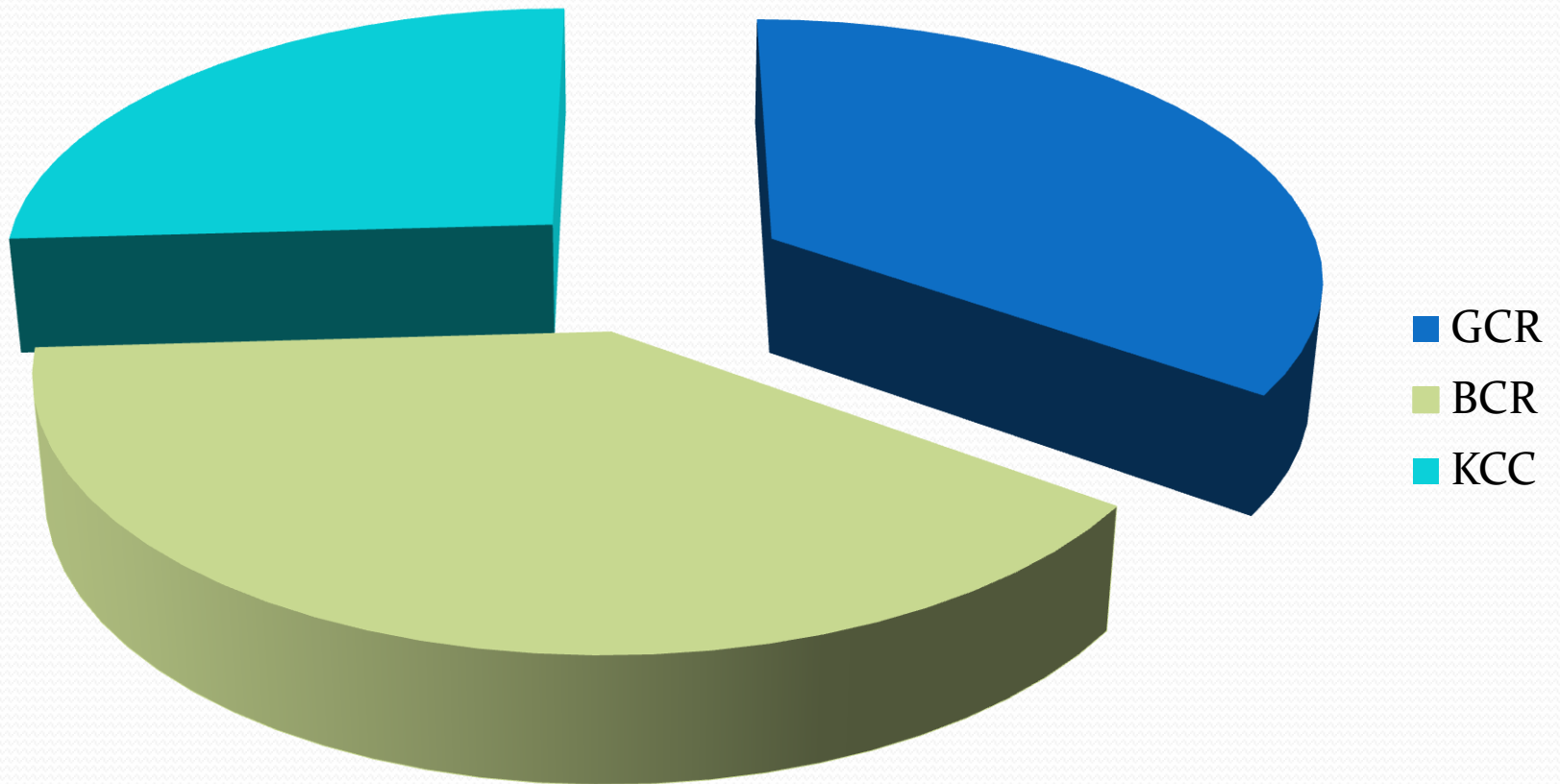
GCR responsibilities

- Cruise sampling
- Post-cruise sampling
- Tours
- Classroom teaching



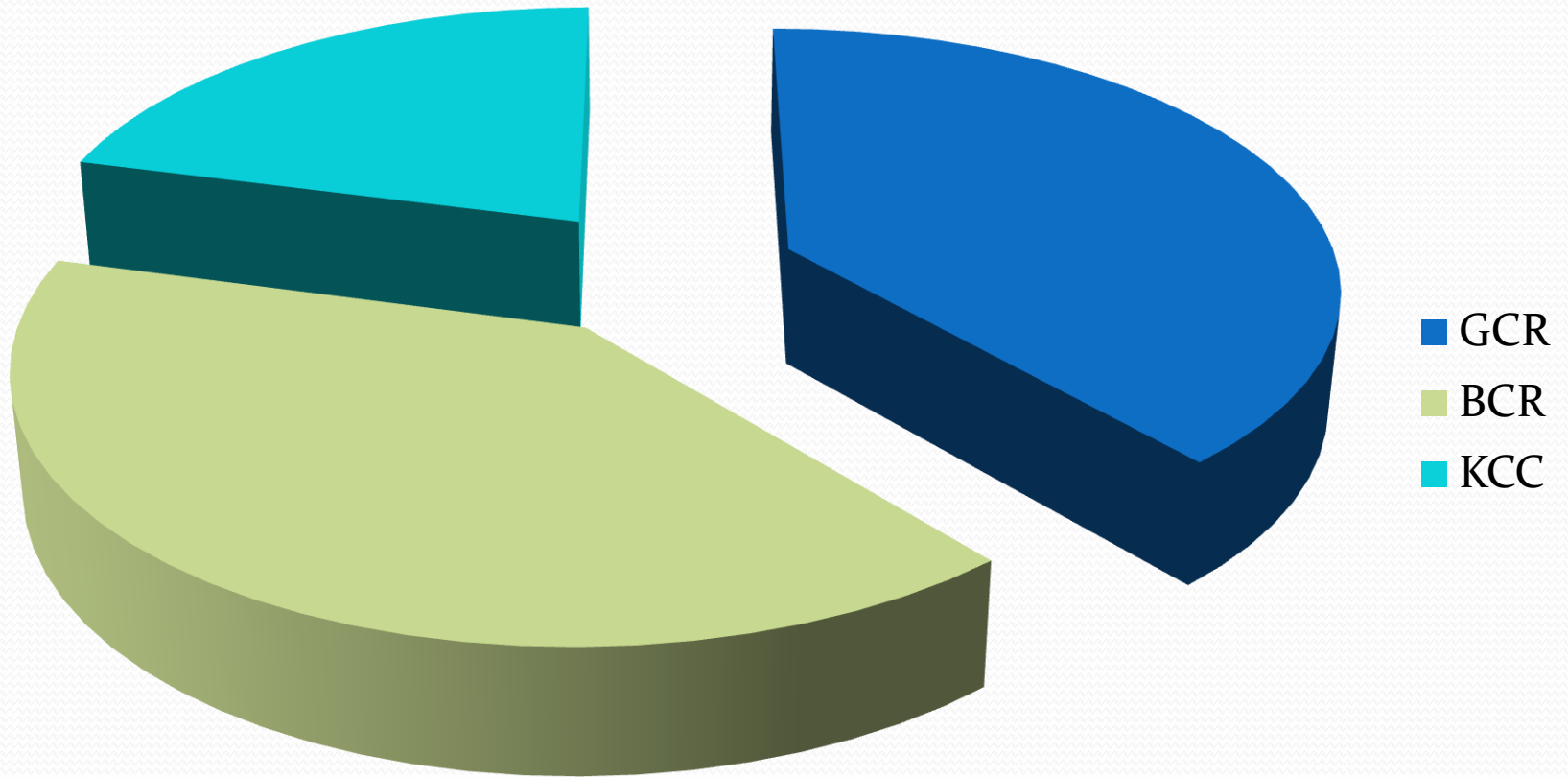
Core in repositories

Total amount of core



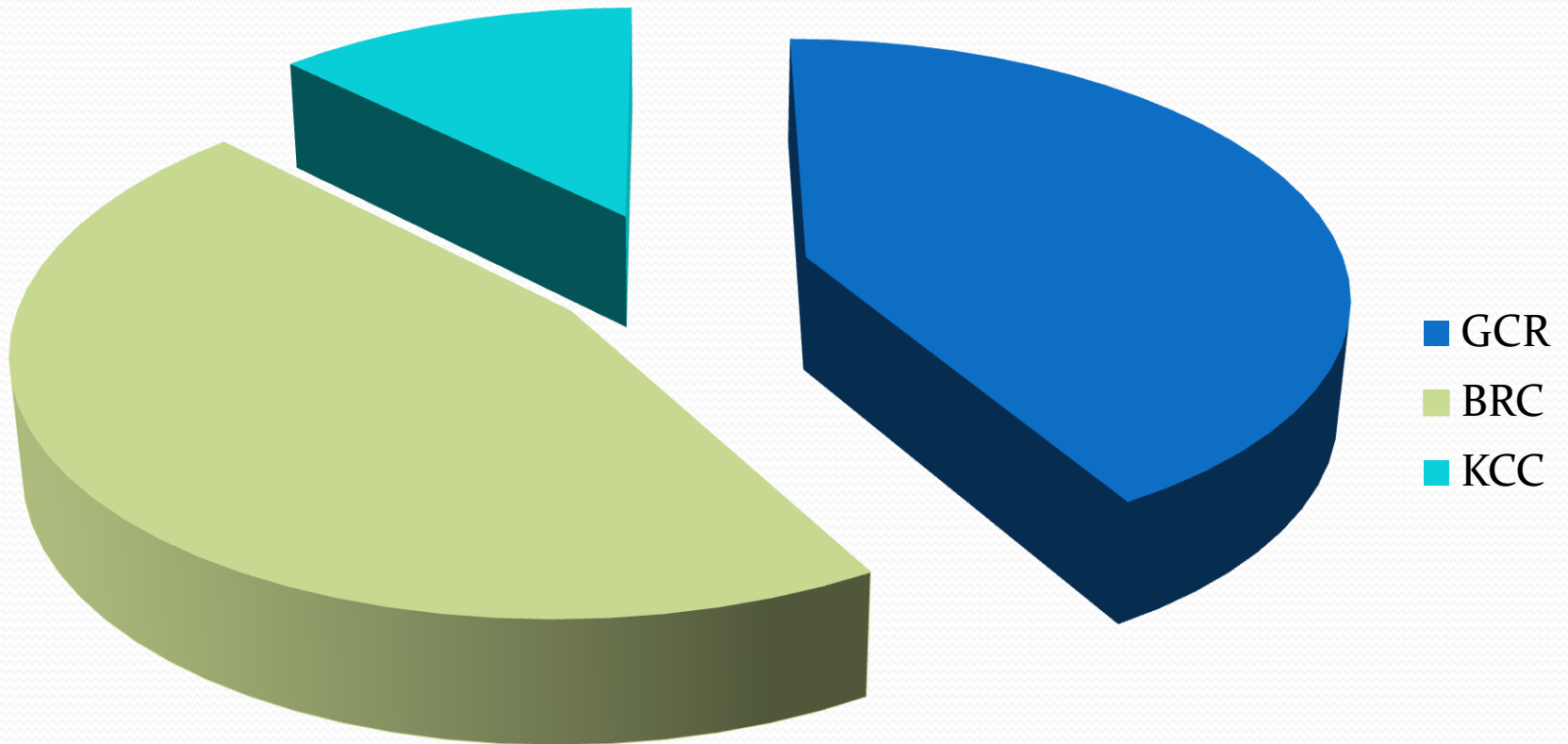
Requests per repository

Total number of requests



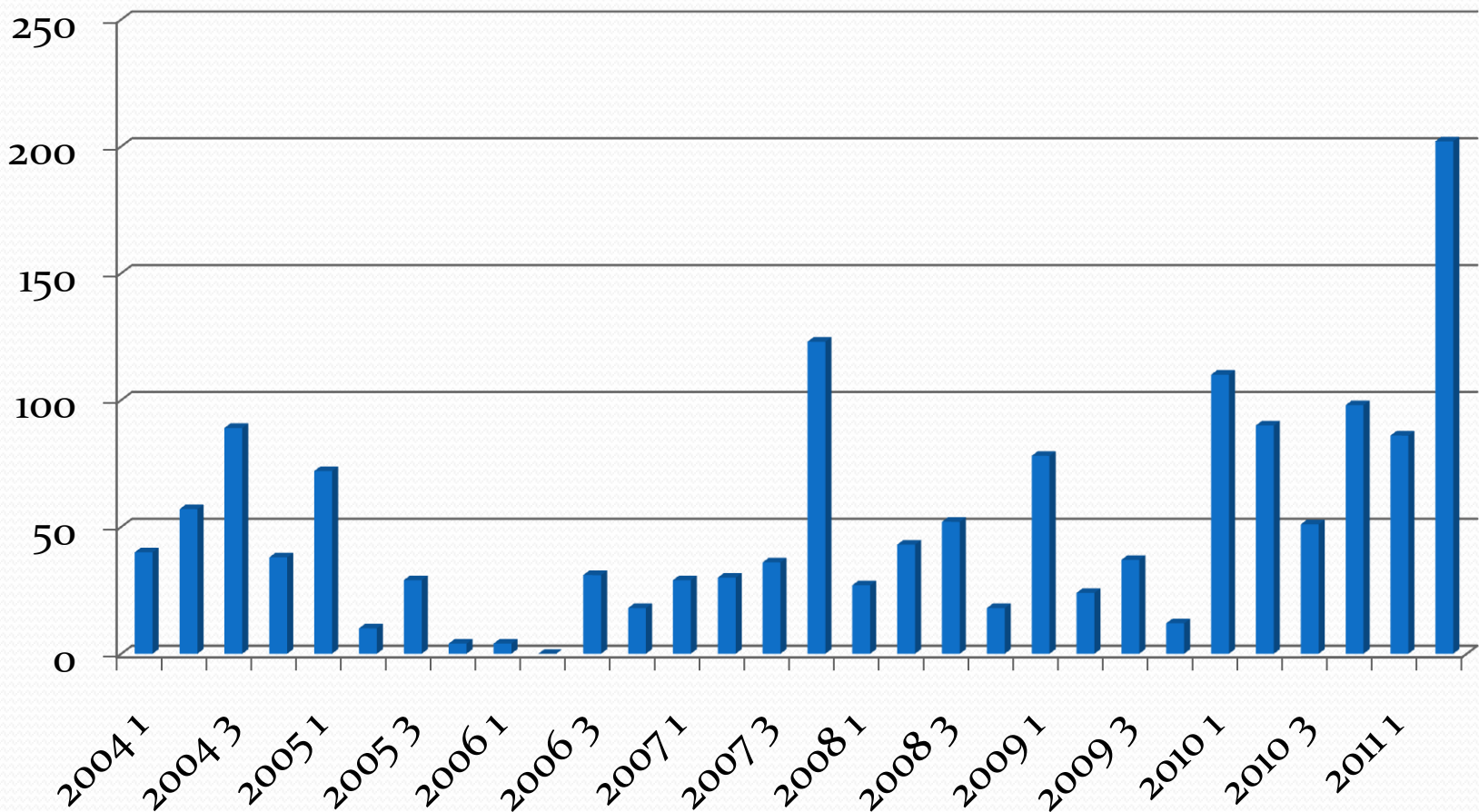
Samples per repository

Total number of samples



Number of visitors quarterly

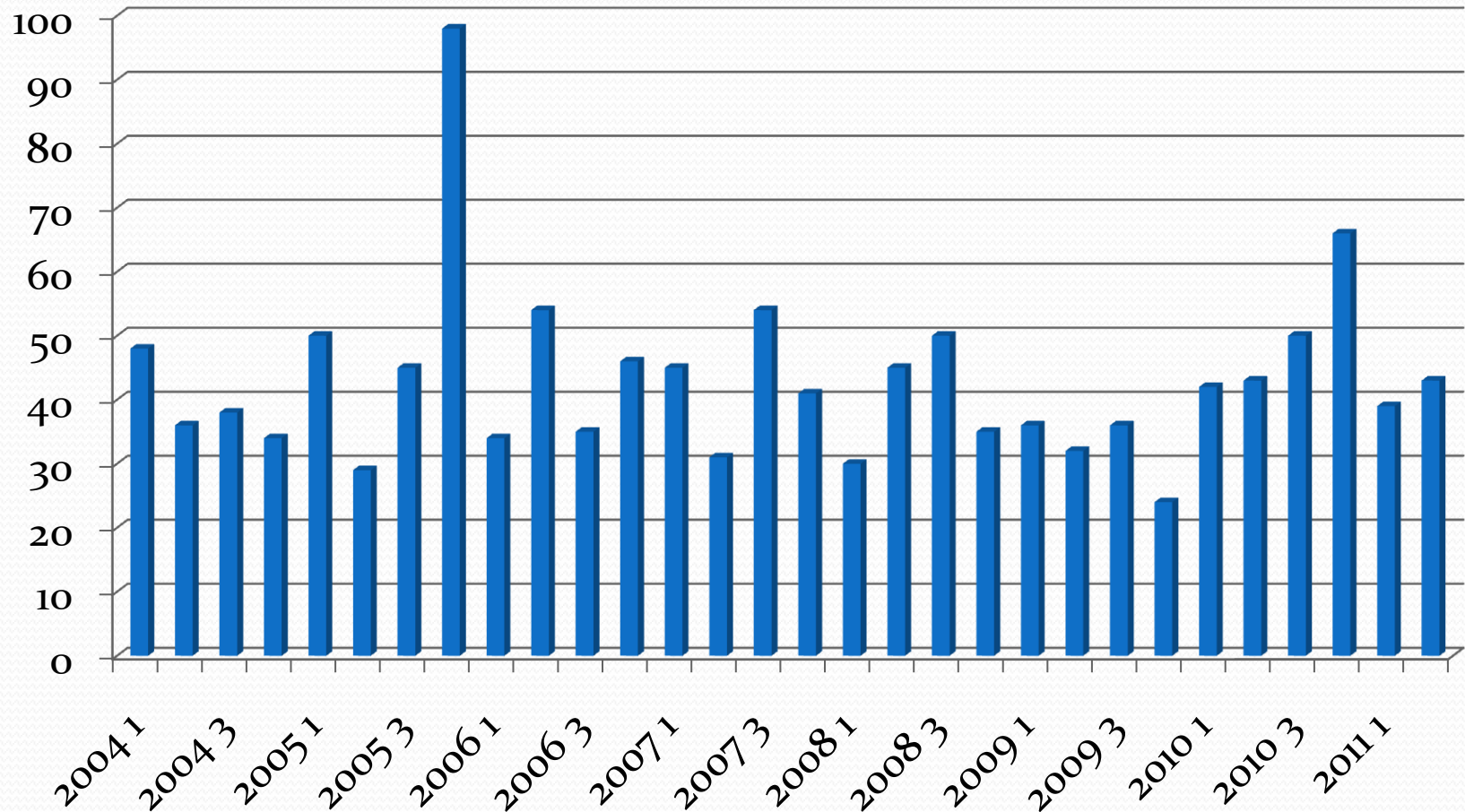
GCR visitors



NOTE: Does not include numbers from sampling parties.

Number of requests quarterly

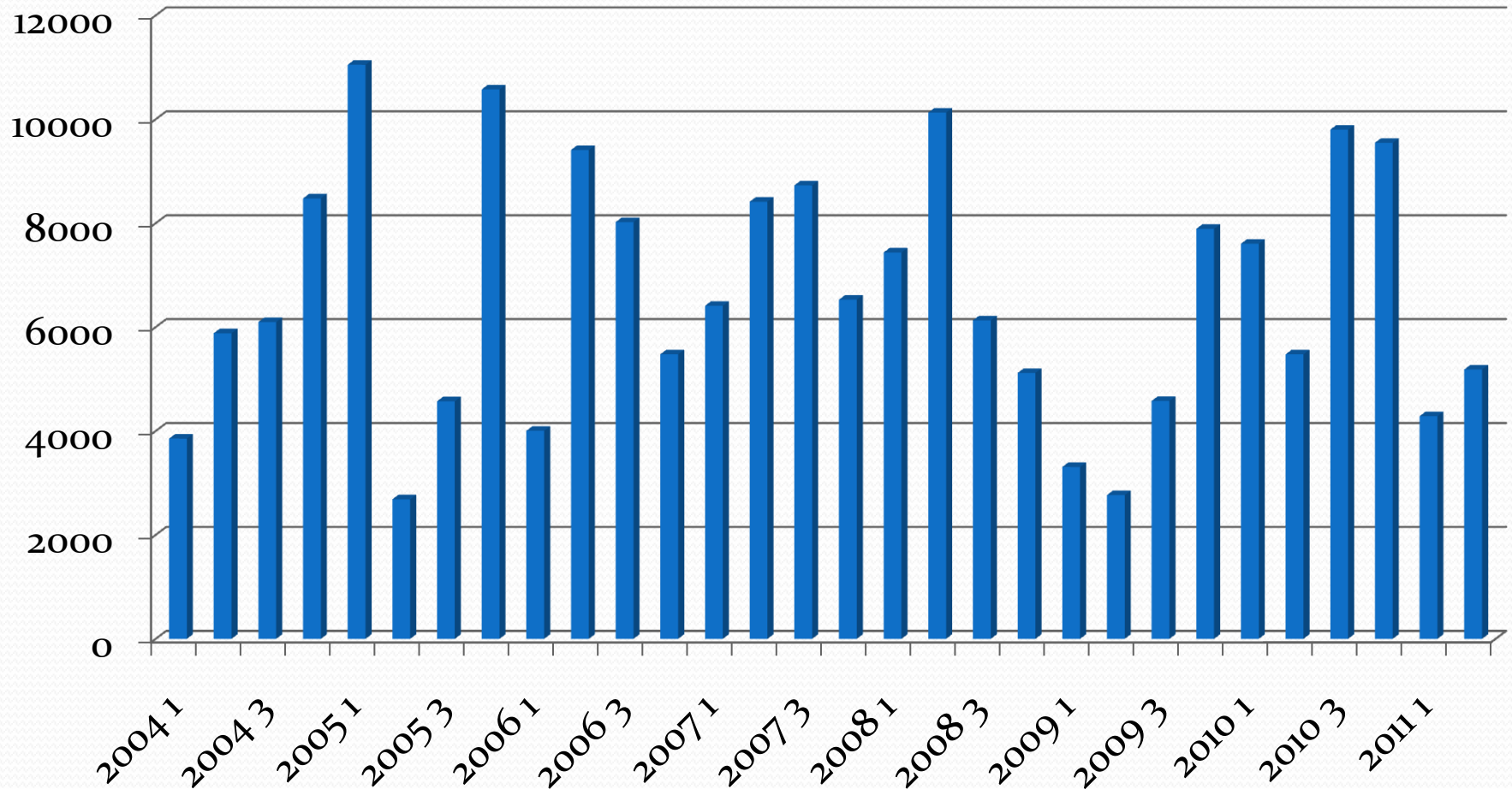
GCR sample requests



NOTE: Does not include numbers from sampling parties.

Number of samples quarterly

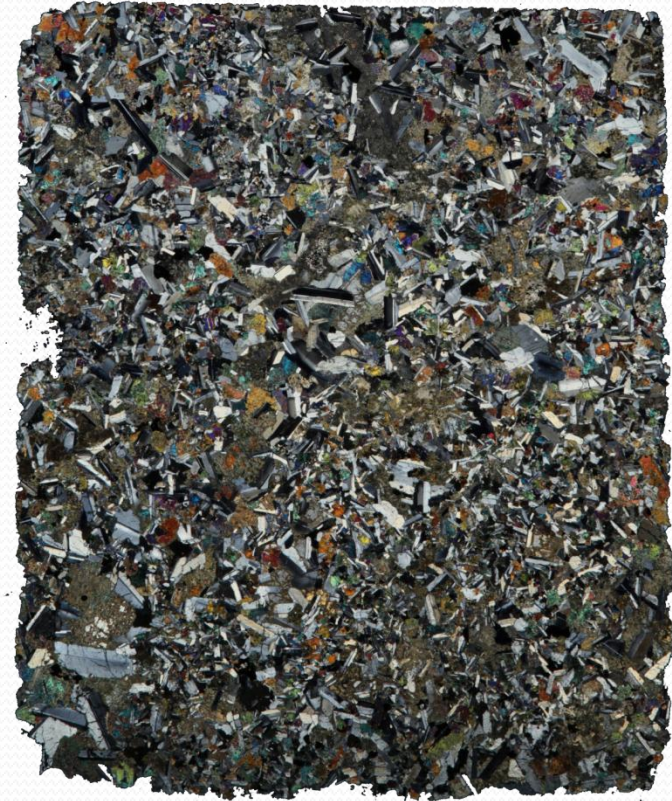
Samples taken at the GCR



NOTE: Does not include numbers from sampling parties.

Technological Advances

- Thin section scanning machine
iodp.tamu.edu/curation/imagerrep/thin_section_scans
- Built new display cases
- Created new foam product
- Produced tubular shrink-wrap
- Worked with developer on Sample Request Submission database
data.oceandrilling.org/sdrm
- Continued working on SampleMaster updates



Outreach

- School of Rock is a teacher workshop organized by the Deep Earth Academy and the Integrated Ocean Drilling Program United States Implementing Organization
- 20+ educators from around the world find out what it's like to engage in scientific ocean drilling research, and share this information with their shore-based students (sometimes live from sea!)
- Use of authentic data, inquiry-centered activities, and interdisciplinary explorations

