



NATIONAL SCIENCE FOUNDATION  
2415 EISENHOWER AVENUE  
ALEXANDRIA, VIRGINIA 22314

**NSF 21-043**

## Dear Colleague Letter: Request for Expression of Interest Regarding Provision of a Drilling Vessel to Support Future International Scientific Ocean Discovery

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February 1, 2021

Dear Colleagues:

### **SYNOPSIS OF PROGRAM:**

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Expressions of Interest are requested from [eligible U.S. institutions](#) to provide a multi-decadal drilling vessel, possibly through the National Science Foundation (NSF) Major Multi-User Research Facilities process as described in the [NSF Major Facilities Guide](#), to support the science needs and enable new science discovery as defined in the recently completed [Exploring Earth by Scientific Ocean Drilling 2050 Science Framework](#). The 2050 Science Framework is based on workshop-derived input from the [American scientific community](#) and international workshops held in Europe, Japan, China, Australia, South Korea, and India. All totaled, over 800 participants defined the need for a multi-decade program with a globally ranging scientific drillship to address critical global geoscience problems in the oceans and explore areas of the Earth otherwise inaccessible for sampling or observation.

NSF currently supports International Scientific Ocean Drilling with the [JOIDES Resolution \(JR\)](#). This leased facility has served three successive international scientific drilling programs over a nearly four-decade span and is nearing its end of service life. The JR is a modified commercial drilling vessel with extensive onboard laboratories that conducts non-riser scientific drilling and coring. NSF seeks innovative solutions to future scientific ocean drilling and is ready to consider a wide array of possible strategies, including newbuild, provision of major vessel systems (such as a drilling system) installed on a new hull, or modification to an existing vessel. NSF will consider either federal ownership or a leasing arrangement, which would help inform the funding process.

The recent National Science Board publication [Vision 2030](#) provides informative guidance for

the next decade. Provision of a state-of-the-art, globally ranging scientific drillship for future international scientific ocean drilling programs will allow the United States to keep its lead in fundamental geoscience research while welcoming and capitalizing on the globalization of science and engineering, one of the leadership elements identified in the Vision 2030 report.

A future scientific drillship and ocean drilling program would also address three key elements in the Vision 2030: Infrastructure, Partnerships, and Talent. It would provide essential infrastructure to the geosciences that supports international and academic-industry partnerships to conduct multi-disciplinary seafloor research into the Earth system, including earth and climate history, extent of life, and geological hazards. A new drillship would also provide the facility needed to build on the highly successful past progress made in workforce development to ensure a just, equitable, diverse, and inclusive national and international STEM talent pool in the ocean drilling community.

It is currently envisioned that the drilling vessel's acquisition would be supported through a cooperative agreement, a form of financial assistance, governed by [2 CFR, Part 200 \(Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards\)](#) awarded through a competitive process. Additional cooperative agreement(s) may be awarded to support vessel science operations. Depending on the proposed acquisition method, NSF understands that provision of a newly-constructed drilling vessel or a hull that would be outfitted with a drilling system may require an operational commitment of up to 10 years to avoid a high vessel operational day rate.

Expressions of Interest should be provided by May 1, 2021, to the Cognizant Program Officer listed below. Expressions of Interest should not exceed fifteen (15) pages and should include: (1) the title of project as given in this DCL; (2) contact details of your organization; and (3) relevant qualifications and experience including staff capabilities and details of relevant recent work. Future Requests for Information (RFI) and possible proposals will be expected to detail acquisition and operational strategies, including a range of vessel characteristics, projected acquisition cost and estimated yearly operational costs. Potential vessel providers from interested non-eligible entities are encouraged to partner with eligible institutions.

Cognizant Program Officer:

*Please note that the following information is current at the time of publishing. See program website for any updates to the points of contact.*

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Sincerely,

William E. Easterling  
Assistant Director for Geosciences