



NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314

NSF 20-104

Dear Colleague Letter: Planning for GEO-themed Industry University Cooperative Research Centers (IUCRCs)

June 29, 2020

Dear Colleagues:

The National Science Foundation's (NSF) Directorate for Geosciences (GEO) encourages the submission of proposals for planning grants for Industry-University Cooperative Research Centers (IUCRC) that transform the results of cutting-edge, use-inspired/purpose-driven, fundamental research on the dynamics of Earth processes into concepts and research products of collective interest to entities in the private sector, utilities, state and local governments, federal agencies and national labs, regulators, nonprofits, and other interested parties. The NSF IUCRC Program is a nationally recognized vehicle that increases funding to institutions of higher education, their faculty, and students.

With the recent release of the new IUCRC solicitation ([NSF 20-570](#)), GEO has committed to building a portfolio of GEO-centered IUCRCs. As GEO builds its portfolio, periodic Dear Colleague Letters (DCLs) will be released, identifying one or more areas of interest in which GEO will entertain IUCRC submissions. Through this DCL, GEO encourages proposals for planning grants for IUCRCs that address challenges in the atmospheric, ocean, coastal, geospace, or polar sciences.

IUCRC PROGRAM OVERVIEW

IUCRCs are public-private partnerships that catalyze breakthrough, cutting-edge, pre-competitive research by enabling close and sustained engagement between industry, academic teams, and government agencies. These Centers have three primary goals: (1) conducting high-impact research to meet the critical and shared needs of commercial and governmental entities that require better fundamental understandings of processes, mechanisms, and problems that they are unable to carry out internally; (2) moving fundamental research results to society and/or the marketplace via innovation and technology development; and (3) mentoring and developing a diverse, highly skilled, science and engineering workforce that understands how to work with industry and translate research

results into understandings, products, and technologies that benefit society and the economy.

The IUCRC program provides a structure for academic researchers to constructively interact with industry and government organizations who pay membership fees to the Center. These program funds are used to support faculty consortia who propose cutting-edge fundamental research projects designed to address their collective member's needs. Dues paying Center members consider proposals initiated by faculty and students and provide resources to target those they feel are most critical to addressing their collective needs.

Successful IUCRCs require:

- A capable, dedicated, research/management team with an entrepreneurial mindset.
- Universities, faculty, and students interested in engaging in research of interest to industry.
- A community of industry partners seeking pre-competitive, use-inspired, research projects.

Each IUCRC is expected to expand their respective research activities and become independently sustainable by the end of the NSF support period (i.e., up to 10 years).

STARTING AN IUCRC

To start an IUCRC, a group of faculty from one or more institutions who want to conduct cutting edge research publishable in the peer-reviewed literature; have knowledge of the fundamental needs of a commercial sector; and have an interest in addressing those needs, convene along with their university administrators to organize an IUCRC. The first formal step consists of submitting an IUCRC Planning Grant proposal which, if awarded, provides up to one year for Center planning. This period includes training on member discovery, interaction with NSF, and time for Center faculty to identify and engage potential members from the private sector and other areas with the potential to become dues paying members of their Center. After a successful planning phase, a Phase I Center proposal is submitted. If awarded, this is the official start of an IUCRC whose first phase runs for five years. Upon successful completion of Phase I, the Center can compete for Phase II, which runs another five years. During the possible 10 year run, IUCRC leadership and faculty work to bring in additional members so, at the end of NSF support, the Center will be self-supporting and sustainably operating with private sector and other non-NSF funding.

Planning Grant proposals require the submission of a preliminary proposal. For the purposes of this DCL, the deadlines for Planning Grant preliminary proposals are September 16, 2020 and March 10, 2021 (see [NSF 20-570](#) for more details on the IUCRC Program, its structure, and requirements).

Interested parties are encouraged to contact Barbara Ransom (bransom@nsf.gov; 703-292-

7792) in the Directorate for Geosciences.

Sincerely,

William E. Easterling
Assistant Director for Geosciences