The following Frequently Asked Questions (FAQs) were developed to help applicants and research administrators with commonly asked questions for the Fusion Innovation Research Engine (FIRE) Collaboratives Funding Opportunity Announcement (FOA).

NOTE: There is a lot of information on the Applicant and Awardee Resources page, including general Applicant FAQs, information on the Statement on Digital Data Management, Promoting Inclusive and Equitable Research (PIER) Plans, and more. This information is not repeated here.

Administrative

1. Where can I find recorded presentations and slides?
    a. All slides and recordings can be found here: https://science.osti.gov/fes/Funding-Opportunities

2. Are pre-applications required?
    a. Yes. A Pre-Application is required and must be submitted by an authorized institutional representative before July 9, 2024, at 5 pm ET.

3. How can first time applicants make strong applications?
    a. Although there is a wealth of resources on this topic, we'd particularly suggest the following:
        i. Watch recent DOE webinars for early career scientists such as:
            1. https://www.energy.gov/doe-stem/events/bes-early-career-network-grant-writing-tips-and-insights-workshop
            2. https://www.energy.gov/science/join-us-office-science-informational-webinar-initiatives-and-programs
        ii. Read the FOA thoroughly and work with your institution's grants office early and often.
        iii. Ask colleagues who are familiar with the grant-writing process to help guide you.

Award Information

1. What is the type of award?
    a. DOE anticipates awarding cooperative agreements and National Laboratory authorizations under this FOA.

2. What is the prime and subaward model?
    a. FES expects the FIRE Collaboratives to adopt a modern interpretation of the prime-sub model, integrating scrum or agile management philosophies to support multi-institutional collaborations. In this approach, the prime serves as a facilitator, coordinating efforts among various stakeholders, including FES, other FIRE Collaboratives, industry partners, advisory members, and sub-institutional partners. An element of a FIRE Collaborative is to foster multi-institutional, multidisciplinary collaboration able to leverage existing expertise, capabilities, facilities, and resources. The management team will include key or senior personnel from each partner institution, ensuring collective oversight and direction. By working together, the team will steer the project in a collaborative manner, rather than

following a top-down approach. In this agile framework, the facilitator would enable coordination and integration of contributions from all partners. This model ensures that every participating institution plays a vital role, promoting shared ownership and joint success of the project.

3. What is the relationship between FIRE Collaborative and the basic research program?
    a. FES envisions the FIRE Collaboratives as a bridge for collaboration and coordination between the basic science research program (including, but not limited to, FES SciDAC Partnerships or IFE STAR hubs) and other stakeholders, creating a dynamic engine for innovation. A FIRE Collaborative must also clearly delineate how the use of existing activities, capabilities, and facilities is distinct from other ongoing funded awards. Since DOE cannot fund work that is already supported by other sources, applicants must carefully explain how their proposed work stands apart from existing funded projects.

4. What is meant by "specified timelines and metrics"?
    a. FES expects quarterly reporting with the FIRE Collaboratives that aligns with defined OKR metrics, or Objectives and Key Results. OKRs are quantifiable outcomes that measure progress toward a goal, involving the setting of ambitious objectives and defining measurable results. This approach, combined with a management framework, fosters a collaborative way of breaking down large projects into smaller, time-bound, and manageable parts which will be measurable.

Eligibility

1. Who is eligible to lead a FIRE Collaborative?
    a. All types of domestic applicants are eligible to apply, except nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995. The following are considered eligible to lead a FIRE Collaborative: DOE/NNSA National Laboratories, universities (R1s, Non-R1s, ERIs, MSIs), non-profits, and private companies.

2. Who is eligible to be a sub awardee in a FIRE Collaborative?
    a. All types of applicants are eligible to apply, except nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995. The following are considered eligible to lead a FIRE Collaborative: DOE/NNSA, Non-DOE/NNSA FFRDs, Other Federal Agencies, universities (R1s, Non-R1s, ERIs, MSIs), non-profits, private companies, and non-domestic entities.

3. Can non-U.S. parties be part of a FIRE collaborative?
    a. Non-domestic partners cannot lead a collaborative but can be proposed as subaward. Applications with non-domestic partners must include a detailed demonstration of how the non-domestic partner possesses skills, resources, and abilities that do not exist among potential domestic partners.

4. Are FIRE collaboratives limited to specific fusion concepts?
    a. The call is concept agnostic (e.g. MFE, non-magnetic, and IFE are example eligible concepts). Please keep in mind that a FIRE Collaborative must be associated with FS&T drivers outlined in the LRP. Outcomes should be directly relevant and impactful to end-users.

5. Does the 80% of FTE max limit apply to proposed hires such as postdocs?
    a. The 80% of an FTE limit does not apply to post-doctoral professionals, graduate students, or undergraduate students.

Intellectual Property and Data

1. What is meant by, "This FOA does not support an applicant's commercial activity…"?
    a. A FIRE Collaborative is encouraged to support research and development (R&D) for future technologies, not for immediate commercial activities. Specifically, it aims to fund R&D required to accelerate technology maturity. These projects should focus on innovations that will be needed to close FM&T gaps, which may have a longer maturation, rather than on later-stage technologies that require minimal R&D and target near-term commercial opportunities. Applications proposing research tied to current commercial activities or immediate customer needs may be declined without review.

2. Can private fusion companies protect confidential data and protect IP developed through FIRE Collab?
    a. Please see more information here: https://science.osti.gov/Funding-Opportunities/Digital-Data-Management#agddm2

3. What is the FIRE Data Repository, why is it needed, and will private company participants be allowed to identify some data as proprietary and withhold it from the data repository?
    a. The FIRE Data Repository's purpose is to assist and support all collaboratives in data preservation and ensure the public use of data. FES envisions this repository as a separate entity that is integrated into each collaborative due to the significant effort required to support all collaboratives. The repository should leverage the existing foundational research program to support an FS&T data repository, demonstrating how the use of existing activities, capabilities, and facilities is distinct from other ongoing funded awards. Data generated from a FIRE Collaborative is considered pre-competitive data. This data is end-use-inspired and is not intended to address near-term commercial opportunities. The goal is to maximize transparency and facilitate knowledge sharing to promote further research and innovation. Private company participants will not be allowed to identify data as proprietary and withhold it from the data repository. The FIRE Collaboratives are not intended to develop proprietary data. All data produced within the collaboratives must be made available in the FIRE Data Repository to

ensure it serves the broader research community and supports the shared mission of advancing fusion energy research.

Submission Pre-application and application

1. Between pre-application and full application, are changes to budget and personnel allowed?
    a. Yes. As long as the estimated budget tables and management structure are updated accordingly. Applicants are strongly encouraged to inform their DOE Program Manager if teaming arrangements, proposed personnel, topics, or the anticipated title change between submitting the pre-application and when an application is submitted, to ensure that their application is properly linked to their pre-application and that reviewers are properly assigned to the application

2. What is the limit on applications by a single institution?
    a. Yes. Applicant institutions are limited to four (4) pre-applications and four (4) applications as the lead of a multi-institutional team. no more than one pre-application or application for any individual PI.

3. Are there any limitations on the Prime?
    a. Yes. The Prime must demonstrate the capabilities and experience to lead such a team, including a management strategy designed to ensure coordination across the team and, if appropriate, with groups pursuing complementary research.
    The lead PI is expected to participate fully in the management or facilitation of the proposed Collaborative. The lead PI pre-application or application of a multi-institutional team may not be listed as a senior or key personnel on any other application's proposed subaward.

4. Are there any limitations on the subawards
    a. Yes. Senior or key personnel listed on a pre-application or application of a multi-institutional team may also be listed as a senior or key personnel, including in any role on a proposed subaward on any number of separate submissions if their total time commitment does not exceed eighty percent (80%) of a full-time equivalent (FTE) appointment as demonstrated on their current and pending support documents.

Other

1. Who do I contact if I'm having problems with submissions?
    a. If you are having problems with submissions of a preapplication, please contact the PAMS helpdesk at 855-818-1846 or sc.pams-helpdesk@science.doe.gov. If you are having problems with submission of an application, please contact the Sponsored Projects Office at your institution or the grants.gov helpdesk at 800-518-4726 or support@grants.gov.

2. Who should I contact for questions about budgets, eligibility, or similar topics?

a. Questions about budgets, eligibility, and similar topics should be directed to fes.fire@science.doe.gov.

3. What is PAMS?
    a. The DOE Office of Science Portfolio Analysis and Management System (PAMS) is a software system that accepts submissions from outside DOE and helps applicants and DOE program managers organize their application and award portfolios. PAMS is integrated with Grants.gov such that grant applications submitted into Grants.gov are imported into and stored by PAMS. Pre-applications must be submitted directly into PAMS.

4. How do I register in PAMS?
    a. To register, click "Create New PAMS Account" on the website https://pamspublic.science.energy.gov/ and follow the instructions for creating an account. You will be prompted to create a username and password and to enter your contact information. Registering to PAMS is a two-step process. Once you create an individual account, you must associate yourself with ("register to") your institution. Follow the onscreen instructions to do this.

5. Is there a list of updated resources and reports?
    a. FES is updating its workshop reports webpage: https://science.osti.gov/fes/Community-Resources/Workshop-Reports. In the meantime, below are links to the updated reports.
        i. Fusion Energy | Department of Energy
        ii. Fusion Energy Strategy 2024
        iii. FES Building Bridges Vision
        iv. *Fusion Fuel Cycles Research Objectives: Results from the 2023 Fusion Fuel Cycles Workshop*. EPRI, Palo Alto, CA: 2024. 3002029371. https://www.epri.com/research/sectors/technology/results/3002029371
        v. *Fusion Blankets Research Objectives: Results from the 2023 Fusion Blankets Workshop.* EPRI, Palo Alto, CA: 2024. 3002029373. https://www.epri.com/research/sectors/technology/results/3002029373