Software Sustainability: ASCR's Perspective

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10/13/2022

Recommendations for ASCR's Software Stewardship

ECP Transition Report, 2020

"We recommend that ASCR build a **shared software stewardship program** to leverage and build on the ECP developed ecosystem **to develop, curate, harden, and distribute software** essential for effective use of HPC systems."

CHIPS and Science Act, 2022

"**It is the sense of Congress that** the Exascale Computing Project has successfully created a broad ecosystem that provides shared software packages, novel evaluation systems, and applications relevant to the science and engineering requirements of the Department, and that **such products must be maintained and improved in order that the full potential of the deployed systems can be continuously realized.**"

Future of Advanced Computing Ecosystem Strategic Plan, 2022

Strategic objective involves considering advanced computing ecosystem as **a strategic national asset**, spanning Government, academia, nonprofits, and industry.

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ASCR Activity, FY 22

RFI on software stewardship

- On October 29th, 2021, ASCR released an RFI. The RFI details the potential scope of stewardship activities.

- 37 independent responses were received.

- Stakeholders include ECP, US Research Software Association, national laboratories, nonprofit organizations, small businesses, and large companies.

- Independent responses to the RFI can be found at https://doi.org/10.2172/1843576

- The RFI detailed the scope of software stewardship activities across areas such as governance model, technological barriers, software dependency, leveraging workforce diversity, and infrastructure requirements.

- See Hal Finkel's ASCAC presentation for a summary of the RFI responses.

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ASCR Activity, FY 23

ASCR has announced an open call on maintenance of software ecosystem
https://science.osti.gov/ascr/Funding-Opportunities

FY 2023 Continuation of Solicitation for the Office of Science Financial Assistance Program

Announcement Number: DE-FOA-0002844
Post Date: Friday, September 30, 2022
Close Date: Saturday, September 30, 2023

- Submission Deadline for Pre-Applications:
  - A Pre-Application is optional/encouraged

- Submission Deadline for Applications: Not Applicable

This FOA will remain open until September 30, 2023 or until replaced by a successor FOA. Applications may be submitted any time during that period.

Open Call, FY 23

- Research topics currently of interest for Advanced Computer Technology (ACT) include:
  - The **maintenance and improvement of the software ecosystem**, including that developed through the Exascale Computing Project (ECP), **which provides shared software packages, novel evaluation systems, and applications relevant to the science and engineering requirements of DOE**, in order that the full potential of the current and future computing systems deployed by DOE can be continuously realized.

Information on the open call
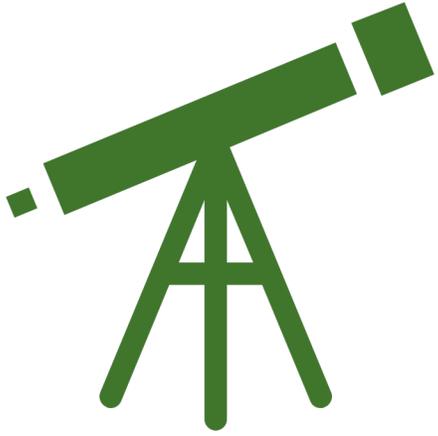
Long-term vision

Applications for sustainability collaborations should **articulate a long-term vision for sustaining a substantial part of the ecosystem** of software for scientific and high-performance computing, and should describe **how their efforts might be rapidly scaled up in the future**.

Collaborations

Applicants should think creatively about how to meet the long-term needs of the software ecosystem, including stakeholders who may need paid commercial support, and about **potential partners**, including national laboratories, academic institutions, nonprofit organizations, and businesses of all sizes.

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Information on the open call*

11/23/2022
Preapplications due

12/19/2022
Full applications due

01/2023
Panel reviews full applications
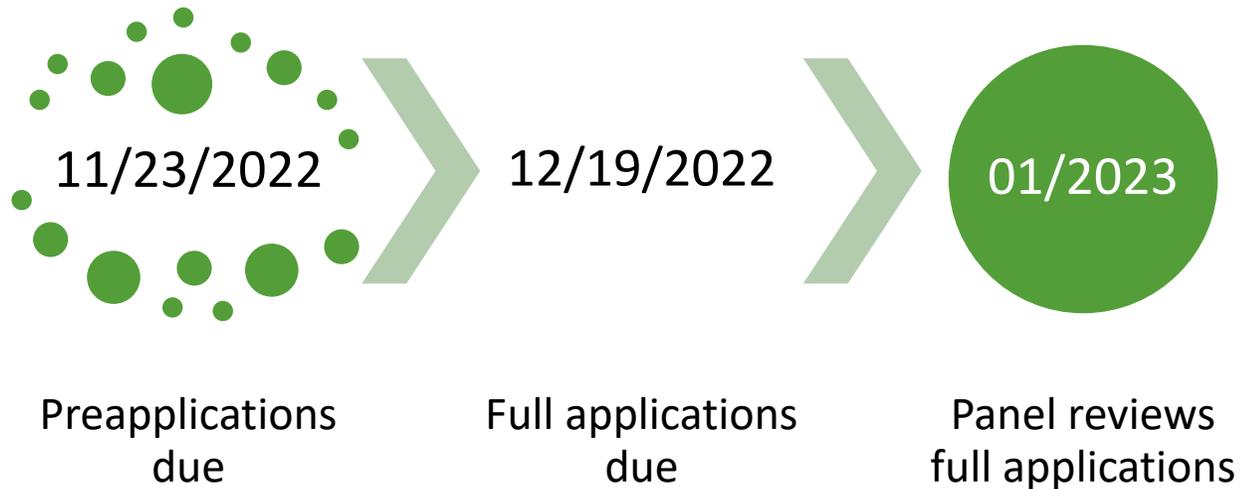
ASCR anticipates selecting 3-5 awards
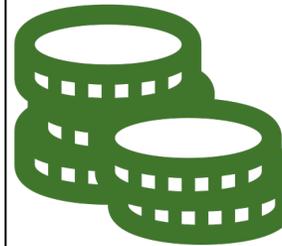
Applicants should request for **no more than $125,000** for a **one-year** award

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* Check the FOA announcement for these updates