Software Sustainability: ASCR’s Perspective

Saswata Hier-Majumder, ASCR
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# 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.
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](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.
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.
Information on the open call*

Preapplications due: 11/23/2022
Full applications due: 12/19/2022
Panel reviews full applications: 01/2023

ASCR anticipates selecting 3-5 awards
Applicants should request for no more than $125,000 for a one-year award

* Check the FOA announcement for these updates