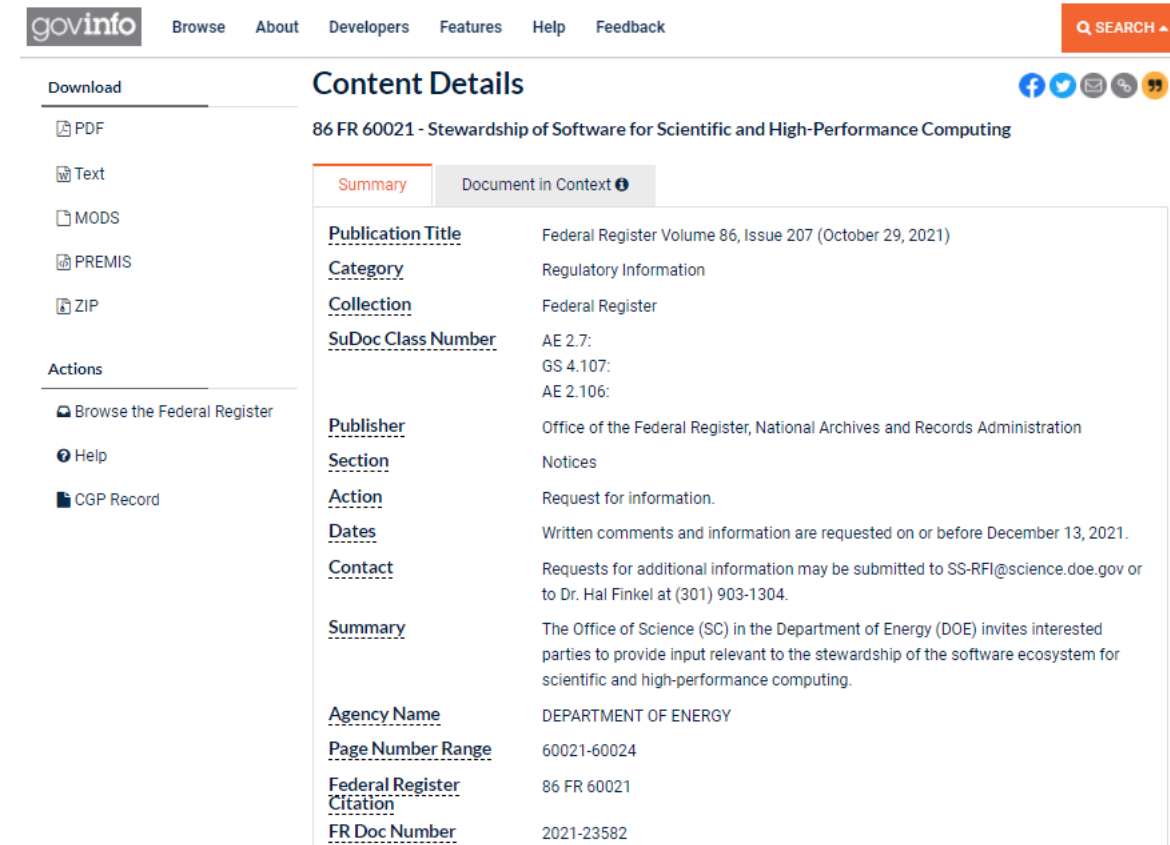# ASCR Software-Stewardship Request for Information (RFI)

- On October 29th, 2021, ASCR released an RFI on the stewardship of software for scientific and high-performance computing.
- Responses are due by December 13th, 2021.
- Requests for clarification or additional information may be submitted to SS-RFI@science.doe.gov.

- The RFI details the potential scope of stewardship activities, including but not limited to:
  - Training on software development and use
  - Workforce support
  - Infrastructure for common development needs
  - Curation and governance processes
  - Maintaining situational awareness
  - Shared engineering resources
  - Project support

https://www.govinfo.gov/app/details/FR-2021-10-29/2021-23582

Responses are due by December 13th, 2021.

RFI has nine classes of questions:

1. Software dependencies and requirements for scientific application development and/or research in computer science and applied mathematics relevant to DOE's mission priorities.
2. Practices related to the security and integrity of software and data.
3. Infrastructure requirements for software development for scientific and high-performance computing.
4. Developing and maintaining community software.
5. Challenges in building a diverse workforce and maintaining an inclusive professional environment.
6. Requirements, barriers, and challenges to technology transfer, and building communities around software projects, including forming consortia and other non-profit organizations.
7. Overall scope of the stewardship effort.
8. Management and oversight structure of the stewardship effort.
9. Assessment and criteria for success for the stewardship effort.

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Responses are due by December 13th, 2021.

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RFI respondents of interest:
- Researchers, innovators, and entrepreneurs, including individuals from groups historically underrepresented in Science, Technology, Engineering, and Mathematics (STEM) or from underserved communities;
- Incubators and accelerators;
- Investors and funders;
- Businesses of all sizes;
- Institutions of higher education;
- DOE National Laboratories and other agencies' federally-funded research and development centers (FFRDCs);
- Other federal agencies;
- Non-profit organizations, professional societies, and R&D consortia; and
- State, local, and tribal governments.

Other respondents with relevant insights are welcome to respond.

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- Nearly all computational science, including computer science and applied mathematics research, depends on building on previous work – *largely gone are the days of starting from a blank slate*.

- The software ecosystem will continue to evolve past ECP, foreseeably growing to encompass additional capabilities for data analytics, AI/ML, and complex workflows.

- Stewardship done well will promote thriving careers in scientific software.

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ASCR Software-Stewardship

- The charge of the task force has been substantially shaped by the recommendations in the October 2020 ASCAC report on *Transitioning ASCR after ECP*, including:
  - *Recommendation A.1: Create a shared-software stewardship program within ASCR*
  - *Recommendation A.2: Engage current, and anticipate future, software needs*
  - *Recommendation A.3: Collaboratively support applications*
  - *Recommendation A.4: Broaden industry and academic engagement*
  - *Recommendation B.3: Distribute research software*
  - *Recommendation C.2: Retain the current workforce*
  - *Recommendation C.3: Strengthen ties to universities and the ecosystem*
  - *Recommendation C.4: Create career paths for scientific software professionals*
  - *Recommendation C.5: Support diversity, equity & inclusion (DEI)*

Transitioning ASCR after ECP

Report to the DOE Office of Science, Advanced Scientific Computing Research Program

October 2020