Center for Open-Source Research Software Advancement

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CORSA Vision

To become a community of practice that creates pathways for open-source scientific software projects to avail themselves of resources for long-term growth, stewardship, advancement, and innovation.

CORSA Goals

Create pathways to open source software foundations

Empower communities with software sustainability metrics

Facilitate cross-cutting activities to address the needs of unique and diverse communities

Provide objective guidance to software communities
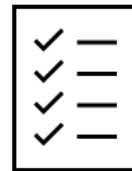
Foundation Pathways: Adoption

- **Communicate the benefits** of joining a foundation to projects.
- **Streamline the process of joining a foundation** in collaboration with foundations.
- **Work with projects to understand foundations' lifecycle processes** and with foundations to understand project lifecycles.
- **Act as liaisons with foundations**, representing the voices of OSS and their communities.
- **Facilitate funding arrangements** between foundations and national laboratories.

Foundation Pathways: Facilitation

- Communicate key factors that enable successful transition to foundations
- Share trends and evolving needs in ecosystems, communities, and industries.
- Identify various support models for software projects within foundations.
- Tailor support models (pathways) to different contexts and project types.

CORSA will set up a public **open source foundations forum** to support the growth of the ecosystem toward foundation policy stewardship and resource and information exchange.
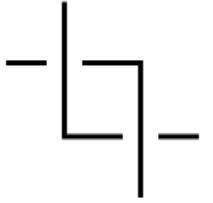
Sustainability Scorecards: Motivation

- Projects need to know what to improve and how well they are doing
- Funders need to know what they could invest in
  - Investing in projects may depend on the status of a project's sustainability
  - Investing in projects may be directed toward sustainability concerns
- Software community has developed various approaches to this
  - Metrics collected and described by CHAOSS (part of Linux Foundation)
  - Software Sustainability Matrix from Kitware
  - OpenSSF Scorecard and Criticality Score
- Interest from NumFOCUS, Research Software Alliance (ReSA), and other orgs

Sustainability Scorecards: Activities

1. Work with the community to develop software sustainability metrics
2. Develop and/or coordinate infrastructure to collect and present metrics
3. Provide training sessions or workshops to help use and interpret metrics
4. Facilitate the integrating of software sustainability metrics into project management processes
5. Assist projects in effectively communicating their sustainability efforts and achievements
6. Refine and improve sustainability scorecards based on feedback and real-world experiences.

Cross Cutting Activities

- Developing case studies, surveys, and content analyses to identify successful strategies and communication channels.
- Analyzing the impact of community-building efforts on the long-term sustainability of software projects
- Using foundation case studies, policy analyses, and stakeholder interviews to uncover the impact of foundation policies on the growth and success of research software projects
- Developing and evaluating different approaches for software projects and communities considering a transition toward becoming part of an open-source foundation.
- Benchmarking the strategies and communication channels used to aid software projects in building their communities, attracting investment, and commercializing opportunities.

Empowering Communities with Best Practices

- Gather successful project and community experiences to create a repository of best practices.
- Create comprehensive guidance documents and training materials to share these strategies.
- Host workshops to share best practices with community members.

Current Activities

- Foundations Forum Kick Off (virtual) in preparation for 2024
- Engaging with CHAOSS to develop a clear scope for sustainability metrics
- Developing an initial set of sustainability metrics, begin collecting metrics on subset of projects
- Curation of foundation resources
- Events (planned):
  - Sustainable Scientific Software Conference (S3C) workshop and talk
    - **Effective Metrics for Measuring and Enhancing Sustainability in Scientific Software**
  - PASC24 mini-symposiums:
    - Open-Source Scientific Software Ecosystem Stewardship: Pathways to Foundations
    - Improving the Sustainability of Research and Scientific Software
  - SC24 BOF proposal

Open Questions and Discussion
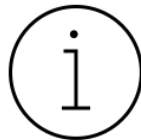
Foundation Pathways

- Are you or your project(s) currently in a software foundation?
  - If yes, which one(s)?
- If not, have you thought about joining one?
  - If yes, which one(s) and why?
- What questions do you have about foundations?

Sustainability Metrics

- What factors would you consider to be indicators of a successful project?
- What factors would indicate a project is end-of-life?
- How would you measure these?

Please join!

Please consider joining CORSA and subscribing to our mailing list to become a part of a community striving to create a sustainable scientific software ecosystem.

https://corsa.center

Thank you!