

Research software community
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COMMUNITY OVERVIEW

Since 2010, the Software Sustainability Institute (SSI) has facilitated the advancement of software in research by cultivating better, more sustainable, research software to enable world-class research (“Better software, better research”). To achieve this, the SSI has engaged a community of researchers; Research Software Engineers and developers; instructors and trainers that deliver research software training; research policymakers; and groups that provide services that support research software development. Community members participate via online platforms and virtual events. SSI Fellows champion the Institute’s mission through organising events and growing their own communities of practice. SSI, a grant-funded organization, is based at the Universities of Edinburgh, Manchester, Oxford, and Southampton.

► Website: <https://www.software.ac.uk/>

KEYWORDS

- **Disciplines / skills**
- INTERDISCIPLINARY
- SOFTWARE AND CODE
- **Programming and goals**
- STANDARD SETTING
- KNOWLEDGE GENERATION
- SKILLS DEVELOPMENT
- MENTORING
- OUTREACH AND EXTERNAL COMMUNICATIONS
- DIVERSITY, EQUITY, AND INCLUSION
- SOFTWARE SUSTAINABILITY
- OPEN SCIENCE
- **Stakeholder relationships**
- MULTI-STAKEHOLDER

COMMUNITY BASICS



275 core members

10 000 person broader reach



Mostly in-person with a lesser online component*



70% National,
30% International



Open
(anyone can join)

*all activities were online during the COVID-19 pandemic

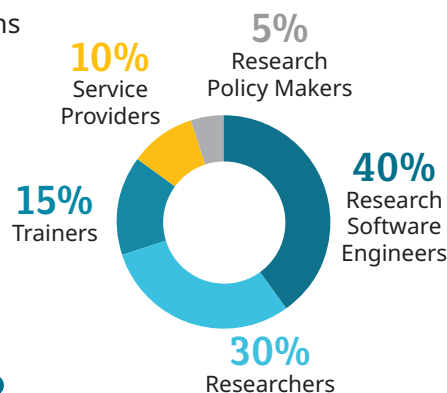
COMMUNITY STRUCTURE

Community Management

Community management is provided via 2.1 to 2.9 FTEs distributed across 4 positions (**Community Lead**, **Research Software Community Manager**, **Community Officer**, and **Community Manager for UK Research Software Engineering**). Additional support is provided by other **SSI staff**. Participants in the **Fellowship Programme** organize events and grow their own communities of practice.



Members



Community Configuration

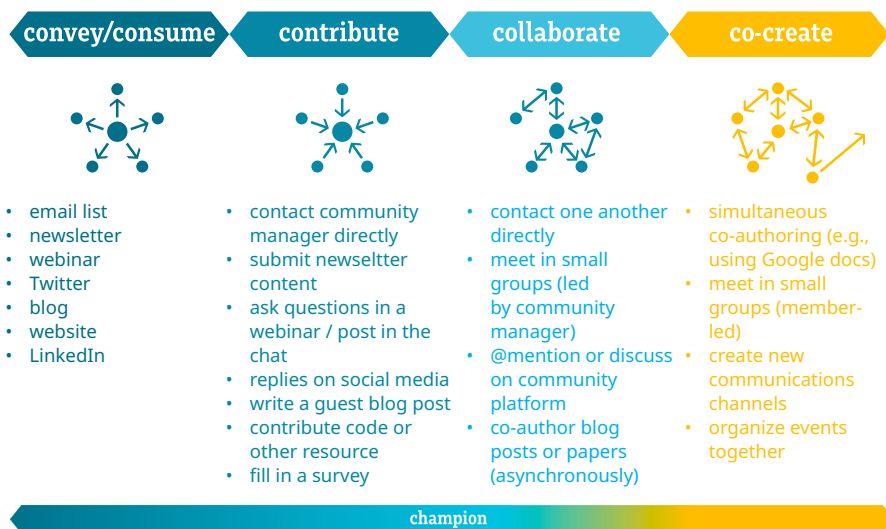


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PROGRAMMING

Programming includes blog posts, news items and best practice guides on the SSI website, newsletters, mailing lists, social media (Twitter, LinkedIn, YouTube), workshops and events (such as the annual Collaborations Workshop, Research Software Camps, Carpentries workshops, Community Calls), the Open Call and Research Software Healthcheck, and the Fellowship Programme.



i THE COMMUNITY PARTICIPATION MODEL

The CSCCE Community Participation Model describes four modes of member engagement that can occur within a community – CONVEY/CONSUME, CONTRIBUTE, COLLABORATE, and CO-CREATE – and one that can occur both inside and outside of it: CHAMPION. All modes may be present at once, with some members interacting in multiple modes – or a community may have member engagement that falls into only some of the modes described. The model enables the mapping of community member behaviors to programming and other infrastructural support that the community manager, convening organization, or funder may provide to the community.

► For more information, see the [CSCCE community participation model](#).



COMMUNITY CHAMPIONS

The community champions program is called the Fellowship Programme. Fellows are awarded funds that they can use for any activities that meet both the Fellow's and the Institute's goals.

i CHAMPIONS take on additional activities to support or advance the community. They are sometimes described as emergent leaders.

M MAINTAIN

- code review / maintainer roles
- reviewing applications e.g., for fellowships

G GROW

- recruit new members
- organize events
- represent the community at external events

E EVOLVE

- serve on a steering committee or other advisory role
- participate in a focus group or other means of in-depth feedback

COMMUNITY TOOLBOX

Communications

Email	Slack
MailChimp	LinkedIn
Blog	Eventbrite
Twitter	YouTube
Zoom	Sli.do
GitHub	

Productivity

Drupal	GitHub
R	Python
Adobe Suite	Otter
Google Drive	Restream
Google Analytics	

Community platforms

Slack	GitHub
lowFAT	

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OUTPUTS & EVALUATION

Success looks like software being recognized as a valuable output of research, with researchers and those who work on code (e.g., research software engineers) receiving recognition or career credit, and reproducible research being normalised



Successes over the last year

We successfully transitioned our annual (in-person) unconference event to a virtual one in the space of 3 weeks at the start of the pandemic and were recognized and consulted on virtual event organisation as a result. We run a successful Fellowship Programme that empowers ambassadors to promote good research software practice in their domains.

- **Growth** - added new members
- **Growth** - added additional sub-communities or working groups
- **Growth** - launched new program or project
- **Growth** - entered new domain
- **Engagement** - increased activity of members (commenting or attending)
- **Engagement** - more members acted as champions
- **Activity** - hosted an event
- **Funding** - added a new revenue stream
- **Value** - external recognition
- **Value** - members expressing recognition of the community's value



Evaluation and Reporting

- External evaluator
- Community member interviews and surveys
- Reports for leadership



Opportunities

We are striving towards recognition and collaboration internationally. We are also interested in moving our activities towards a hybrid model to better serve our community members in a post-COVID world.

- **Growth** - new working groups
- **Growth** - launch new program or project
- **Growth** - add new members
- **Engagement** - increase member activity
- **Engagement** - more members acting as champions
- **Activities** - create community outputs together
- **Activities** - host conference(s) / workshops
- **Funding** - solidify existing funding stream
- **Value** - external recognition
- **Value** - more members expressing recognition of the community's value



Challenges

Our challenges include having too few staff for the large amount of programming and activities we are involved in, and thinking critically about what activities we need to do to keep ourselves relevant in 5 years.

- Financial sustainability
- Time management
- Staff or volunteer burnout
- Too few staff or volunteers
- Increasing diversity

FUNDING

100%

Grant funded
- federal or
government



Funding Streams

- The SSI has been supported by EPSRC through grant EP/H043160/1 and EPSRC, BBSRC and ESRC Grant EP/N006410/1 and EPSRC, BBSRC, ESRC, NERC, AHRC, STFC and MRC grant EP/S021779/1.

Fellows can apply for travel funds to attend events or access research opportunities, stipends for professional development, and event funding through the SSI.

ABOUT THIS PROFILE

This profile is part of a research project conducted by the Center for Scientific Collaboration and Community Engagement (CSCCE). You can find out more about the project, and view more community profiles, [on our website](#).

Information for this profile was submitted by Rachael Ainsworth, Research Software Community Manager.

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