

COMMUNITY OVERVIEW

The International Soil Modeling Consortium (ISMC) is a group of research scientists from across the globe that aims to integrate and advance soil systems modeling, data gathering, and observational capabilities to better evaluate and predict soil function. ISMC launched in 2016 and is a Division 2 working group under the International Union of Soil Scientists and supported by Forschungszentrum Jülich. ISMC activities center on an international conference every two years augmented by ongoing virtual activities. ISMC supports several working groups managed by three science panels and overseen by an Executive Board and Advisory Board. These working groups co-produce original research on a number of soil modeling-related topics.

► Website: soil-modeling.org

KEYWORDS

Disciplines / skills

- INTERDISCIPLINARY
- DATA SCIENCE
- ENGINEERING
- SOFTWARE AND CODE
- EDUCATION
- BIOTECHNOLOGY
- ENVIRONMENTAL SCIENCE

Programming and goals

- KNOWLEDGE GENERATION
- PROFESSIONAL DEVELOPMENT
- SKILLS DEVELOPMENT
- MENTORING

Stakeholder relationships

- RESEARCHER-RESEARCHER

COMMUNITY BASICS



50 members
850-person broader reach



Mostly in-person with a lesser online component*

*all activities were online during the COVID-19 pandemic



International



Mostly open – has some open programming but also private activities that are reserved for paying / restricted members

COMMUNITY STRUCTURE

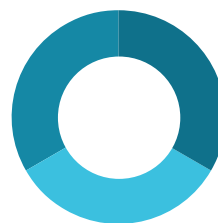
Community Management

Community management is provided by a .5 FTE **Managing Director**. Additional voluntary support is provided by the **executive board**, **advisory board**, **three science panels**, and **community members** who help lead the working groups.



Members

33%
Senior
scientists



33%
Early career
researchers

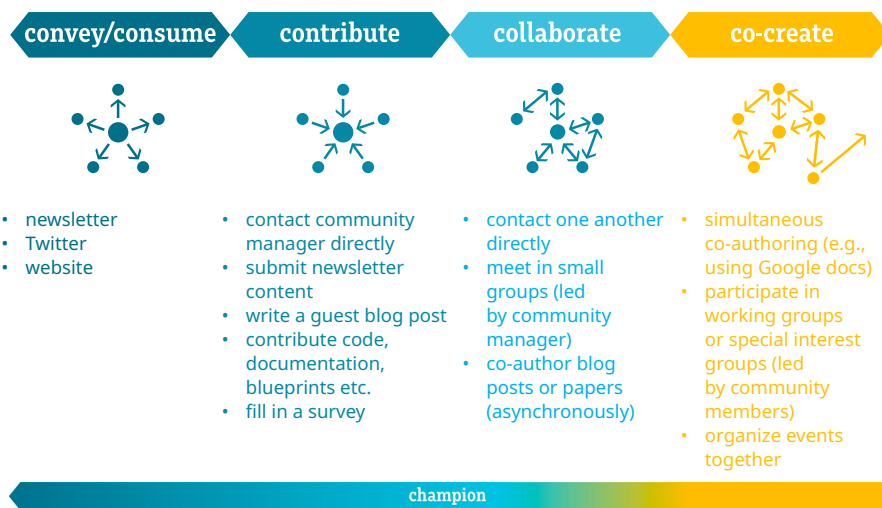
33%
Graduate
students

Community Configuration



PROGRAMMING

In this community, programming includes a monthly newsletter with community news, jobs, and highlights about members and selected papers. The community organizes workshops and sessions at larger conferences. ISMC also hosts an international conference every two years. Working groups produce publications and research statements in a community-driven, grassroots manner.



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](#).

Online

In-person

COMMUNITY CHAMPIONS

Members of the 3 science panels act as informal community managers and oversee the efforts of working groups. Community members also lead working groups.

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



MAINTAIN

- reviewing applications e.g., for fellowships
- act as informal community managers



GROW

- reshare resources
- recruit new members
- represent the community at external events



EVOLVE

- serve on a steering committee or other advisory role

COMMUNITY TOOLBOX

Communications

Email	Zoom
MailChimp	gather.town
Twitter	

Productivity

R	Google Analytics
Google Drive	GitLab

Community platform

N/A



International Soil Modeling Consortium

doi: [10.5281/zenodo.5027652](https://doi.org/10.5281/zenodo.5027652)

► CSCCE Community Profile

OUTPUTS & EVALUATION

Success looks like a better understanding of soil functions via a more connected research community.



Successes over the last year

We hosted an affordable virtual conference in the spring of 2021 after being postponed a year due to COVID that added 120 new community members. We have three engaged working groups.

- **Growth** - added new working groups
- **Growth** - added new members
- **Engagement** - increased activity of members
- **Activities** - creating community outputs together
- **Activities** - an in-person or virtual event
- **Value** - members expressing recognition of the community's value



Evaluation and Reporting

- Community member surveys
- Reports for leadership
- Analyzing platform-generated metrics



Opportunities

Publications from working groups, hosting a social event at the American Geophysical Union (AGU) Meeting.

- **Growth** - new working groups
- **Engagement** - increase member activity
- **Activities** - create community outputs together
- **Activities** - host conference(s) / workshops
- **Value** - more members expressing recognition of the community's value

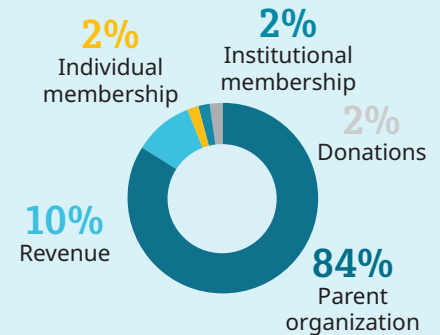


Challenges

Difficult to attract and elevate new members to the organization due to lack of clarity in community process. Questions that need to be addressed include how decisions are made and what expectations are for working groups.

- Financial sustainability
- Senior management buy-in
- Lack of clarity about community goals
- Staff or volunteer burnout
- Unclear governance structure, onboarding process

FUNDING



Funding Streams

- 84% funding from Forschungszentrum Jülich
- 10% revenue
- 2% membership paid by individuals
- 2% membership paid by institutions
- 2% donations

Members can apply for **travel funds** to attend ISMC events.

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 Roland Baatz, Researcher and Managing Director.

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