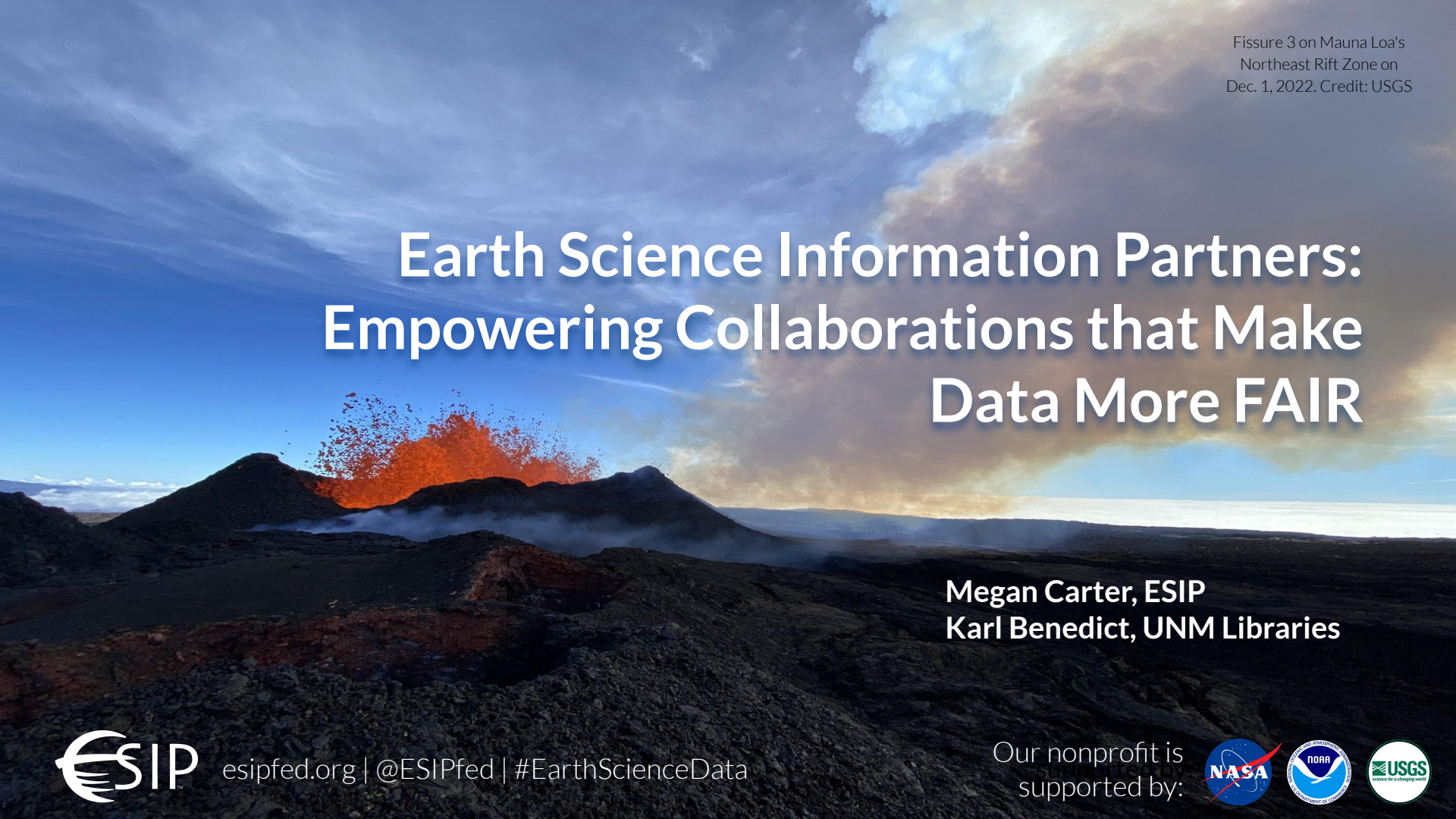


Fissure 3 on Mauna Loa's Northeast Rift Zone on Dec. 1, 2022. Credit: USGS

Earth Science Information Partners: Empowering Collaborations that Make Data More FAIR

Megan Carter, ESIP
Karl Benedict, UNM Libraries

esipfed.org | @ESIPfed | #EarthScienceData

Our nonprofit is supported by:

Archaeologist by Training,
Earth Science Data Geek by Force of Gravity,
Librarian by Inclination

- 15-years working in and then directing an applied geospatial research center
- 12-years in UNM's libraries - 9 as Director of Research Data Services program
- Three years as ESIP President in addition to other roles

Why ESIP?

- Amazing community of engaged Earth Science data providers, technologists, users, and supporters

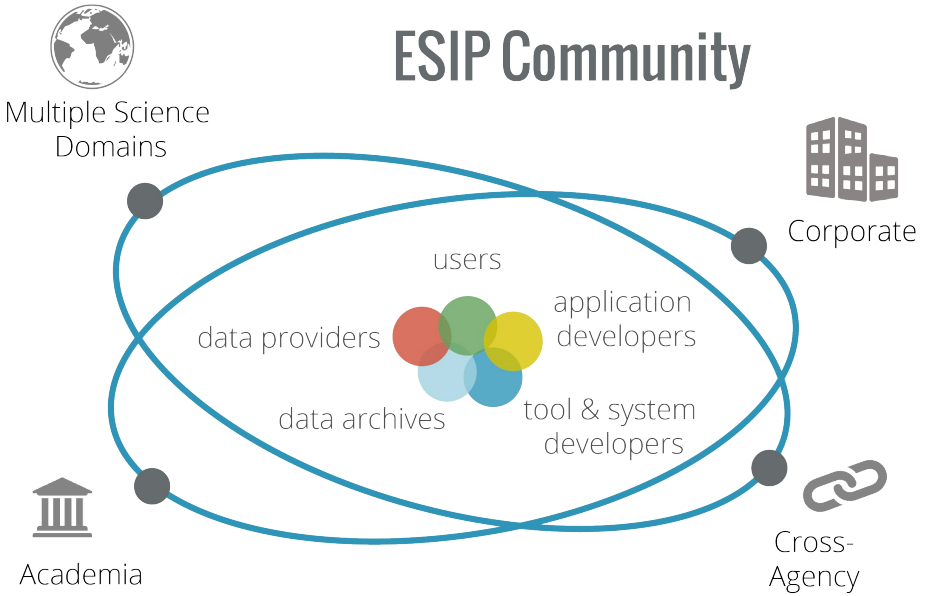
WHO IS ESIP?

Earth Science Information Partners (ESIP)

We believe society's quality of life, economic opportunities, and stewardship of the planet are enhanced by regular use of scientifically sound Earth science data and information provided in a timely manner by a community that is collaborating to improve our collective services.

Supported by:

ESIP is a brain trust of Earth science data & computing professionals



TYPES OF ESIP PARTNERS

TYPE I

DATA AND INFORMATION DISTRIBUTORS, REPOSITORIES, & ARCHIVE CENTERS

TYPE II

PRODUCT & SERVICE PROVIDERS

TYPE III

EARTH SCIENCE APPLIED SERVICE PROVIDERS

TYPE IV

ESIP SPONSORS

TYPE V

COLLABORATIVE DATA NETWORKS

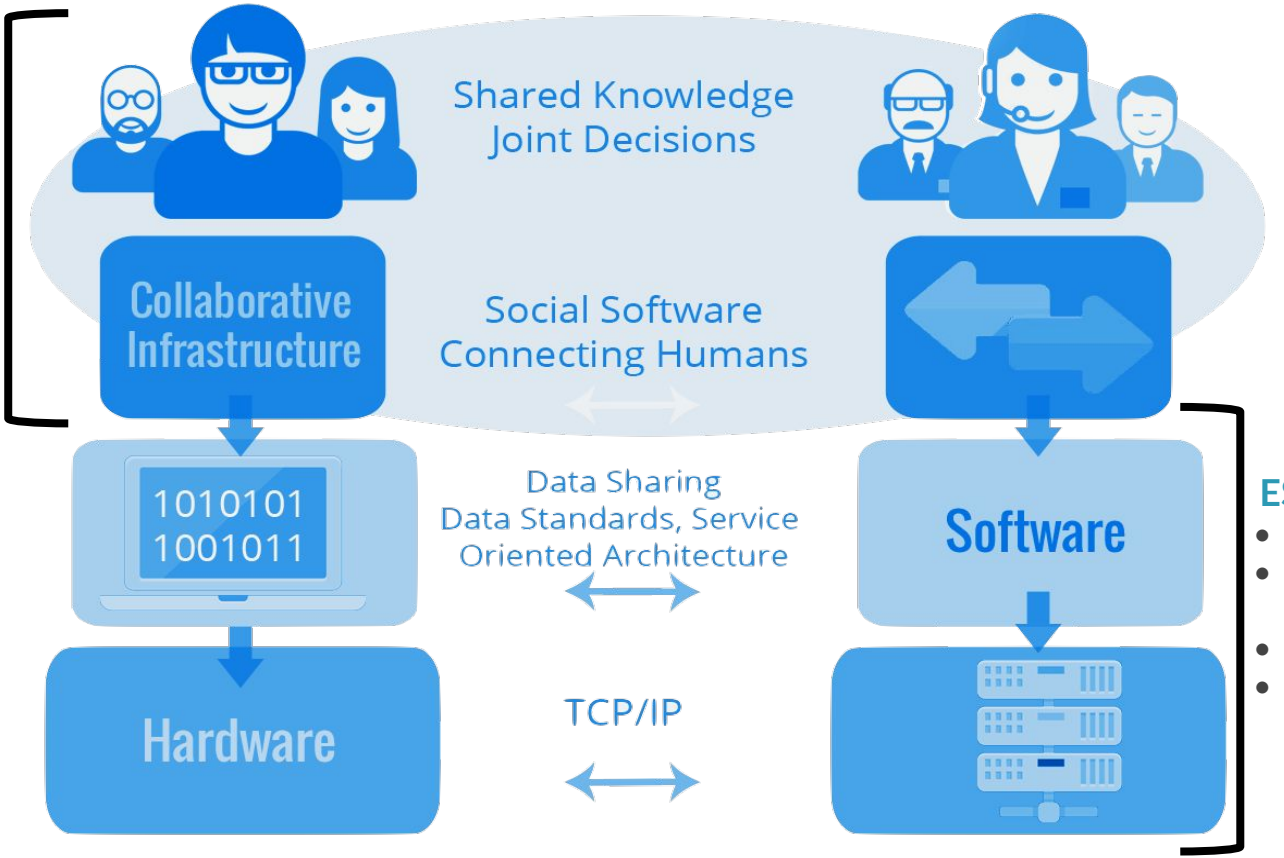
Plus 170 more…

esipfed.org/join

ESIP IS AT THE LEVEL OF HUMAN CONNECTION

Generate recommendations and work products.

Have a lasting impact in the recommendation of standards.



ESIP does not:

- Provide data
- Sustain cyberinfrastructure
- Develop standards
- Compete with our partners

ESIP STAFF

Susan Shingledecker
Executive Director

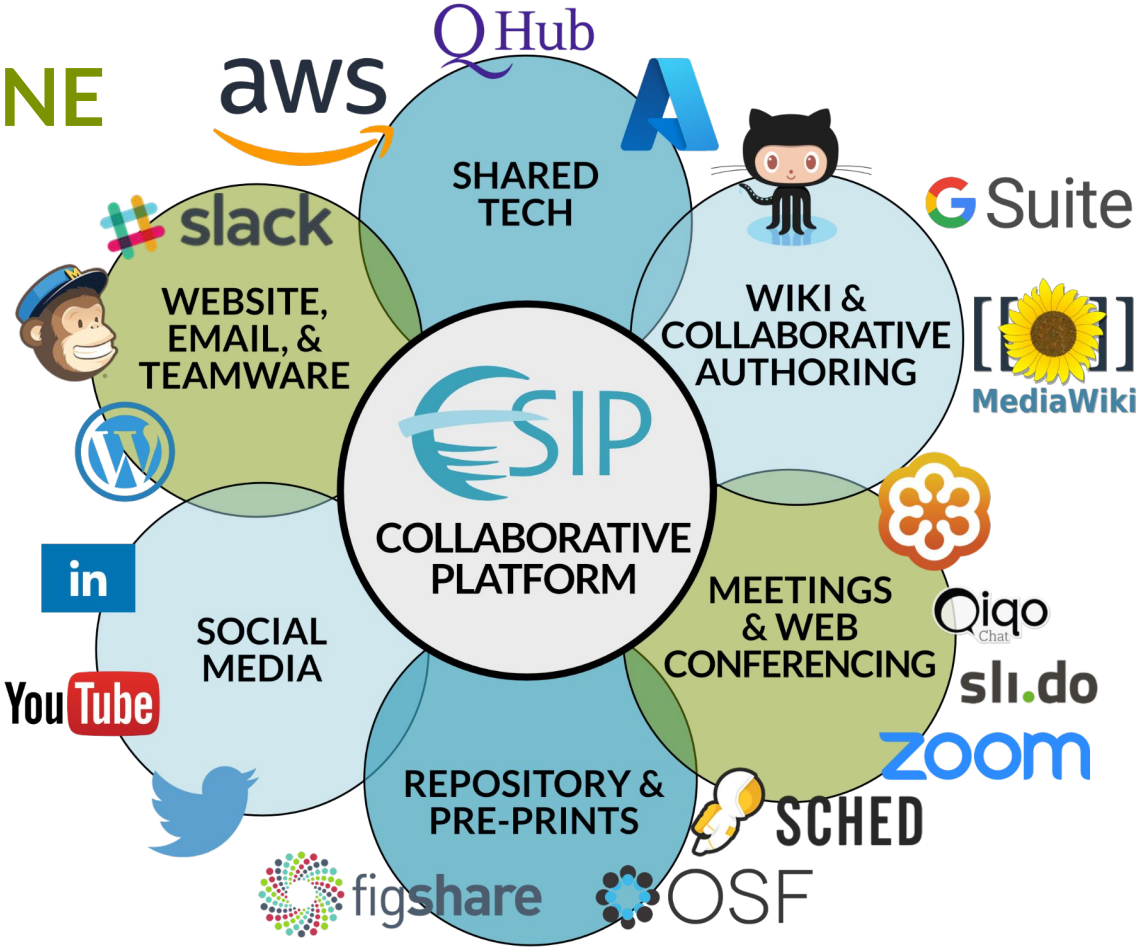
Annie Burgess
ESIP Lab Director

Patty Allen
Operations Director

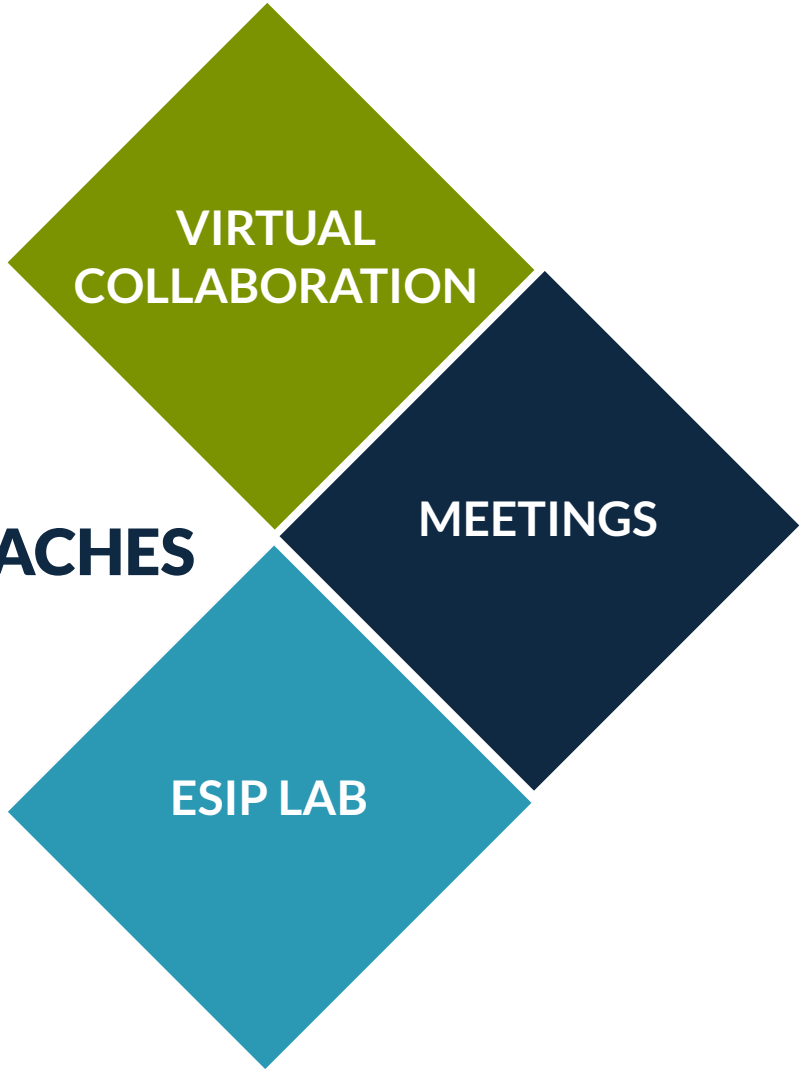
Megan Carter
Community Director

Allison Mills
Communications Director

ESIP BACKBONE



THREE APPROACHES



- Facilitate professional development, outreach, and collaboration opportunities.
- Seed innovation and community-generated best practices.
- Provide funding for prototyping, experimentation, and skill development.

COLLABORATION AREAS

COMMITTEES

- Data Stewardship
- Education
- Information Technology and Interoperability (IT&I)
- Semantic Technologies

CLUSTERS

- Air Quality
- Biological Data Standards
- Cloud Computing
- Community Resilience
- COPDESS
- Community Ontology Repository (COR)
- Council of Data Facilities
- Data Readiness
- Disaster Lifecycle
- Discovery
- Drones
- E2SIP (Australia/New Zealand)
- EnviroSensing
- Information Quality
- Machine Learning
- Marine Data
- Open Science
- Operational Data Ethics
- Physical Sample Curation
- Research Object Citation
- Schema.org
- Semantic Harmonization
- Soil Ontology & Informatics
- Sustainable Data Mgmt
- Wildfires

esipfed.org/collaborate

WHAT COLLABORATION AREAS DO

WORK TOGETHER ON COMMON DATA CHALLENGES

WHERE DO THEY MEET?

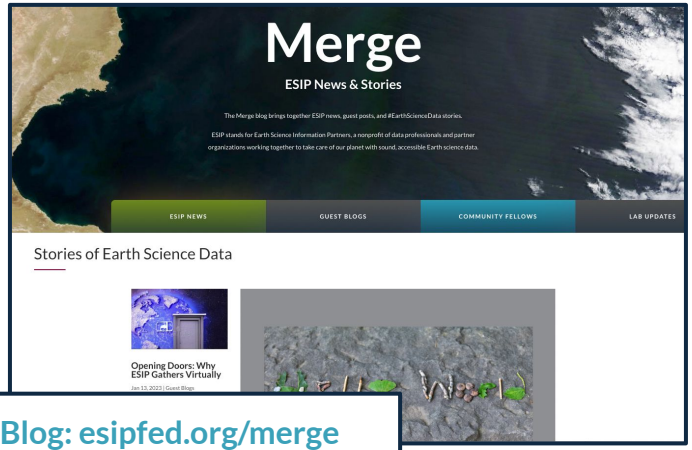
- Virtual telecons
- At ESIP and other meetings

WHAT ARE THEIR GOALS?

- Host webinars, develop outputs, maintain resources, lead open discussion
- Plan ESIP meeting sessions

esipfed.org/telecons

ACTIVE COLLABORATIONS

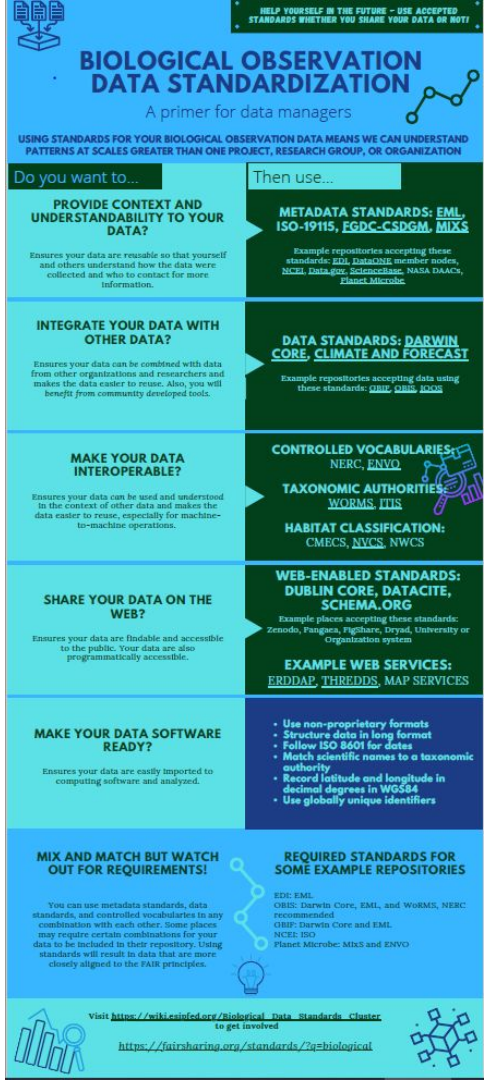


Blog: esipfed.org/merge

30+ Collaboration Areas

300+ hours/yr on Committee & Cluster calls

>1,800 hours/yr of collaborative community engagement



ESIP COMMUNITY FELLOWS

Left to Right:

- Sruti Modekurty | Erasmus Mundus Joint Masters in Urban Climate and Sustainability | Community Resilience Cluster
- Chad Lanctot | University of Tennessee | Physical Samples Cluster
- Morgan Wofford | Univ. of Michigan | Community Resilience Cluster
- Daniel Segessenman | George Mason University | Data Stewardship Committee
- Kyla Richards | Hawaii Pacific University | Biological Data Standards Cluster
- Michael Mahoney | State Univ. of NY | Information Technology & Interoperability Committee
- Jake Gearon | Indiana University | Envirosensing Cluster

TRADITIONAL MEETINGS

ESIP MEETINGS

- Plenaries
- Breakouts
- Networking Time
- Unconference Time
- Co-located Events
- FUNding Friday

Schedule ▾ Speakers Attende

Monday, January 23

12:00pm EST — ESIP 101

3:00pm EST — Effective Communication for Your Projects

Tuesday, January 24

11:00am EST — Opening Plenary

12:30pm EST — Break

1:30pm EST — Collaborative support for the open data lifecycle

Enabling Open Science with NASA's Earthdata in the Clo

Open Science and Information Quality across ESIP

Utilizing GPUs in Machine Learning for Earth Sciences

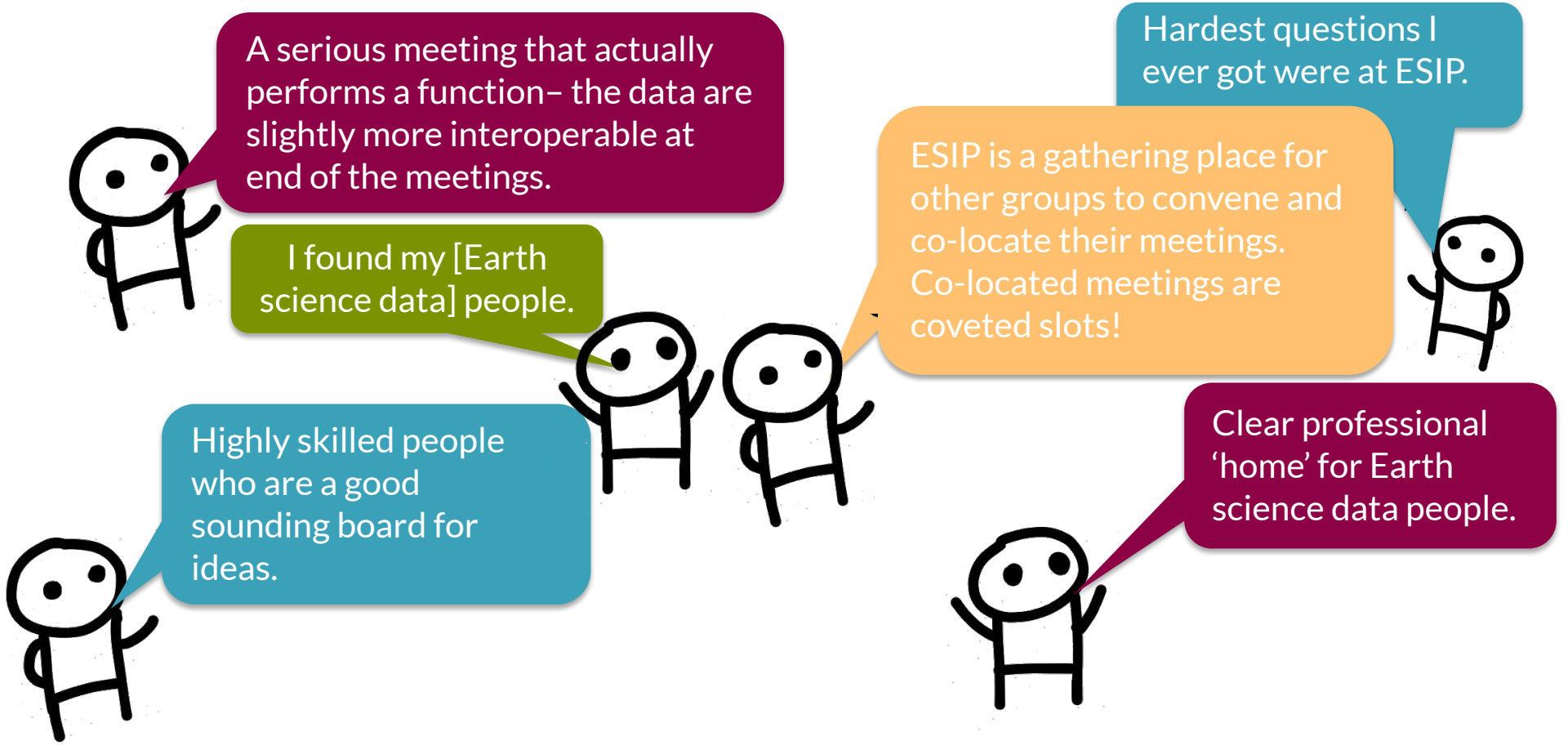
3:15pm EST — Coffee Break Networking

4:00pm EST — Earth and Space Science Knowledge Commons: From vis

OGC Open Standards for Science Solutions

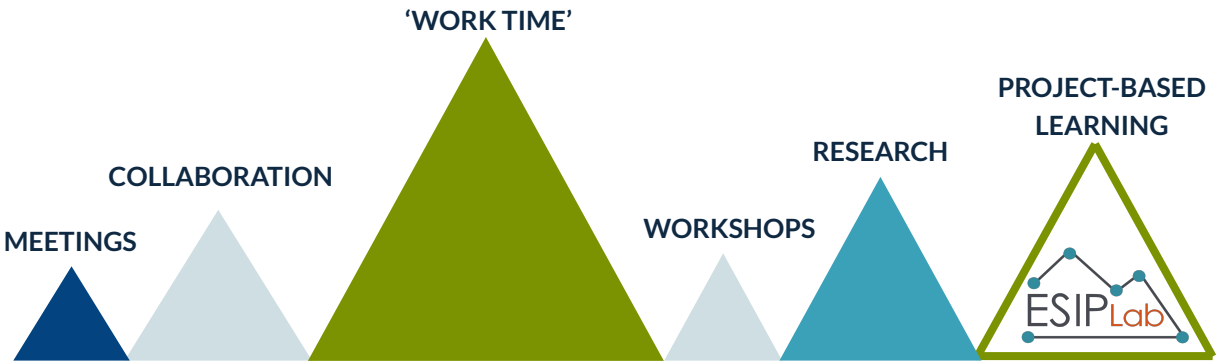
Opening doors for open samples: Developing templates for sample and specimen citation, linking, and credit

WHAT THE ESIP COMMUNITY SAYS ABOUT OUR MEETINGS

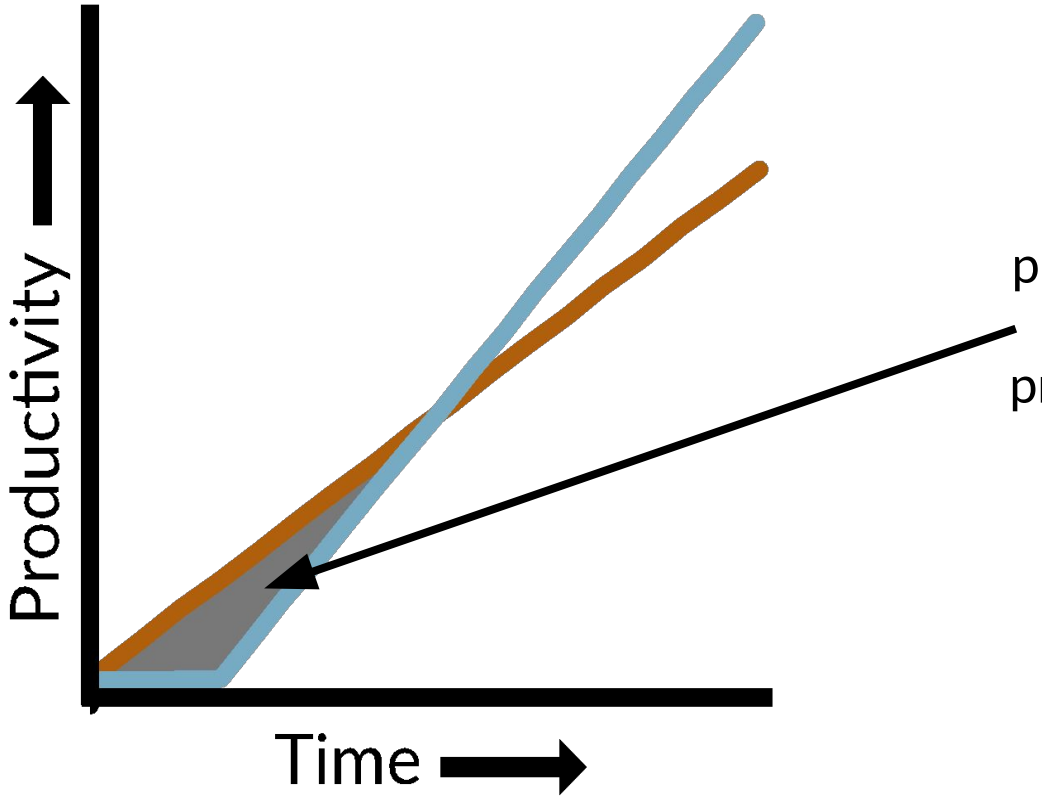


ESIP LAB

We facilitate project-based learning opportunities for Earth scientists to increase their individual technical savvy, while expanding our collective knowledge of Earth system science.



OUR EXPERIENCE IN PROJECT BASED LEARNING



Increasing skills through project-based learning avoids the perception of lost productivity while developing new skills.

RECENT RFP: esipfed.org/rfp

Details

Budget:
$20,000

Project Duration:
6 months

Full Proposal Deadline:
March 3, 2023

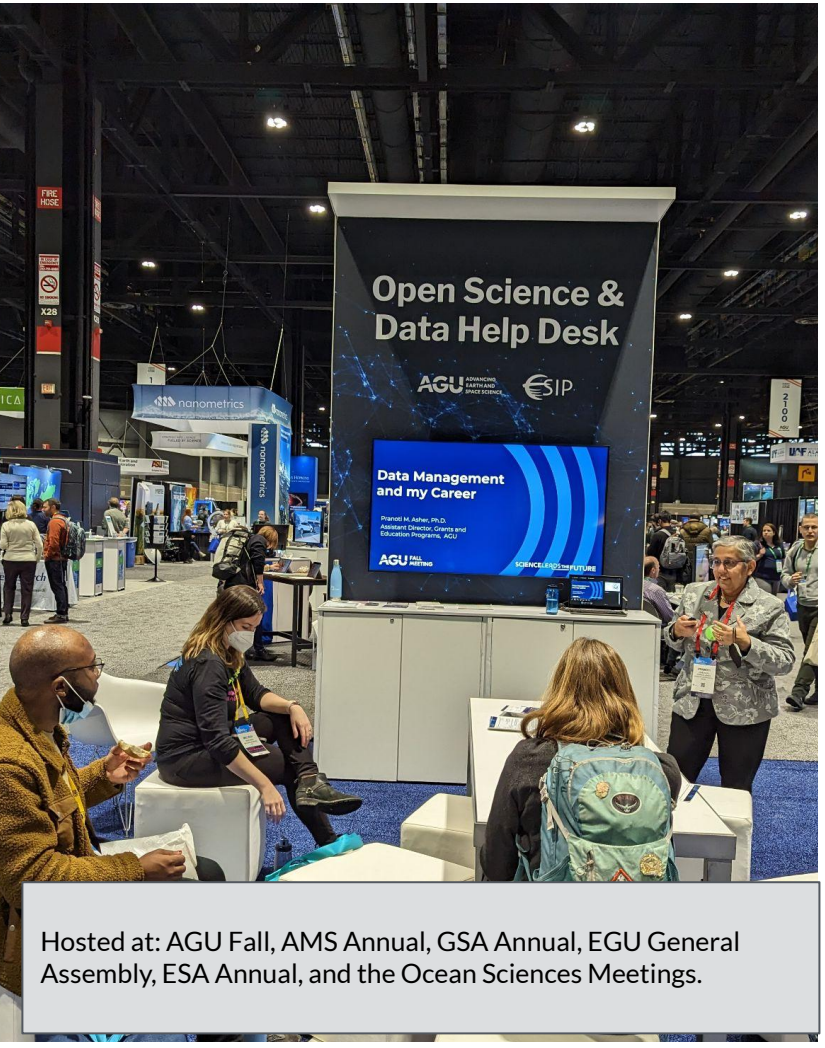
Questions?
lab@esipfed.org

Background

The Earth Science Information Partners (ESIP) is a non-profit dedicated to lowering barriers to scientific inquiry and understanding in the Earth sciences. By facilitating connections across common boundaries—organizations, sectors, disciplines, systems and data—ESIP has built a community of technical professionals able to leverage their collective expertise around Earth science data and computing challenges, resulting in more participatory, equitable and efficient approaches to science.

ESIP's Lab program provides small grant funding to enhance community efforts around topics broadly identified as 'priority areas' by the Earth science community. All ESIP Lab funding opportunities require investigators to include both technical and learning objectives in their proposals. By promoting learning within project solicitations, the ESIP Lab seeks to increase the collective technical savvy of the Earth science community and promote transparency about the skills required to understand our changing planet.

Quick Story

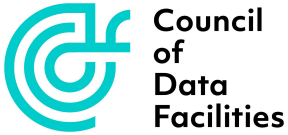


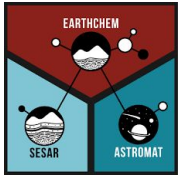
Hosted at: AGU Fall, AMS Annual, GSA Annual, EGU General Assembly, ESA Annual, and the Ocean Sciences Meetings.

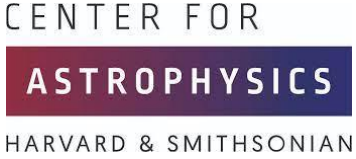
Data Help Desk

Provides researchers with opportunities to engage with informatics experts familiar with their scientific domain and learn about skills and techniques that help further research and make data and software open and FAIR.

Data Help Desk Partners







COMMON QUESTIONS

Where can I find a certain type of data?

What is a good repository for a certain type of data?

How can I write a good data management plan (DMP)?

How can I cite my dataset?

What is FAIR?

What's your question?

Today's DATA HELP DESK Schedule (12/12)

Don't forget to check out the other Data Fair events at http://bit.ly/2019DataFAIRatAGU

Start	End	Data Reference Desk Topic	Data Reference Desk Lead	Data Reference Desk Lead Institution	Data Help Desk Workshop or Resource Demo	Data Help Desk Presenter	Data Help Desk Presenter Institution
10:00	11:30	General Data Management, Information Management, Metadata, Data Repositories (especially BCO-DMO), Schema.org	Adam Shepherd	BCO-DMO / WHOI	WORKSHOP (10:00-10:30 am): Data and Software Citation - The Latest Developments	Mark Parsons (RPI), James Gallagher (Opendap)	Various
		General Research Data Management; DMPs, data publishing, intro to FAIR	Melissa Cragin	San Diego Supercomputer Center	WORKSHOP: How to Find an Appropriate Data Repository (11:00-11:45 am)	Corinna Gries (EDI)/Amber Budden (ADC)/Kerstin Lehnert (EarthChem Library &SESAR), Vicki Ferrini (Marine Geoscience Data System), Julia Masterman (CUAHSI), Adam Shepherd (BCO-DMO)	Various
11:30	13:00	General Data-Oriented Teaching Tools	Shelley Olds	UNAVCO	Data Discovery Studio, SuAVE, EarthCube Resource Registry (Starting at 11:45 am)	Ilya Zaslavsky	San Diego Supercomputer Center
13:00	14:30	CODING HELP DESK: Drop-in for Coding Help, Open to All Programming Languages	Sheila Saia	North Carolina State University	WORKSHOP: Intro to the Data Lifecycle & Data Management Best Practices 101 (2:00-2:30 pm)	Nancy Hoebelheinrich	Knowledge Motifs LLC
14:30	16:00	General Data Management, Data Curation, and Data Archiving	Colin Smith	Environmental Data Initiative	GES DISC Level 2 Subsetting Tool & GES DISC Level 3/4 Regridding Tool	Paul Huwe	NASA
16:00	17:30	General Data Management, Data Publication	Corinna Gries	Environmental Data Initiative	THREDDS and Python with Siphon	Ryan May	UCAR/Unidata

OCEAN SCIENCES MEETING
FDC
D1
Jetstream
WELCOME TO THE
DATA
DESK

ESIP ENGAGEMENT OPPORTUNITIES

Discover

Find people and tools to make your data findable, accessible, interoperable, and reusable (FAIR).

Innovate

Use small-grant funding to build or expand Earth data technologies.

Collaborate

Join-in or create a new collaboration area around your Earth science data challenges.

Network

Build connections across federal agencies, the private sector, and academia.

Questions/Potential Discussion

- What synergies do you see between the work of GSIS and ESIP?
- What types of challenges or opportunities do you see in your daily work?
- What suggestions do you have with respect to the Data Help Desk?

esipfed.org
#EarthScienceData

Reach Out:
megancarter@esipfed.org

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esipfed.org/subscribe

ESIP Meetings
esipfed.org/meetings

ESIP Collaboration Areas
esipfed.org/collaborate

ESIP Lab
esipfed.org/lab

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