#ESIPfed

ESIP 101

ESIP Summer Meeting
Thursday July 15th, 2021

esipfed.org | supported by:

ESIP VISION

To be a leader in promoting
the **collection, stewardship and (re)use**
of Earth science data, information, and knowledge
that is responsive to societal needs.

ESIP CORE VALUES

- Agile
- Collaborative
- Collegial
- Community-driven
- Innovative
- Neutral
- Open
- Participatory
- Voluntary

ESIP SHARED AGENDA

2021-2026 Strategic Themes

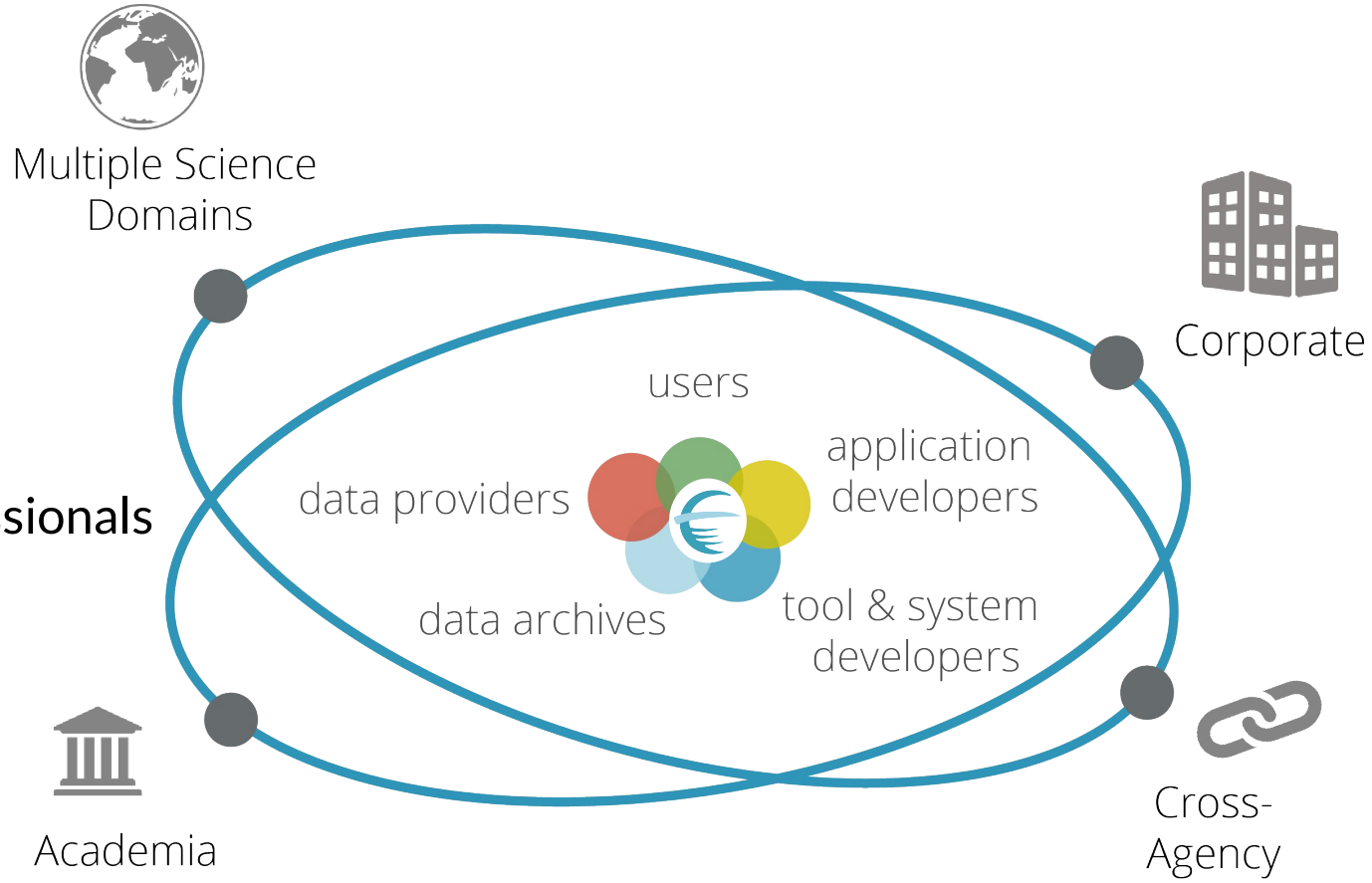
- Promoting a Healthy and Inclusive Culture
- Leading Innovation in Earth Science Data Frontiers
- Making Earth Science Data Matter
- Increase Collaboration Internally and Externally with Stakeholders/Partners
- Elevating the Role of Earth Science Data Professionals

ESIP

Supported by:

NASA NOAA USGS

Brain trust of Earth science data 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 150 more…

ESIPFED.ORG/JOIN

2021 ELECTED LEADERSHIP

BOARD MEMBERS

Nancy Hoebelheinrich

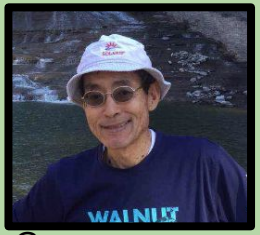
Cynthia Parr

Lesley Wyborn

PROGRAM COMMITTEE

President
Ken Casey

Vice President
Denise Hills



Governance
Bill Teng

Partnership
Mike Daniels

Finance
Tracey Pilone

Nominations
Sarah Ramdeen

Data Stewardship
Amber Budden

Education
Carla McAuliffe

IT&I
Derek Masaki

Semantic Tech
Brandon Whitehead

ESIP COMMUNITY FELLOWS

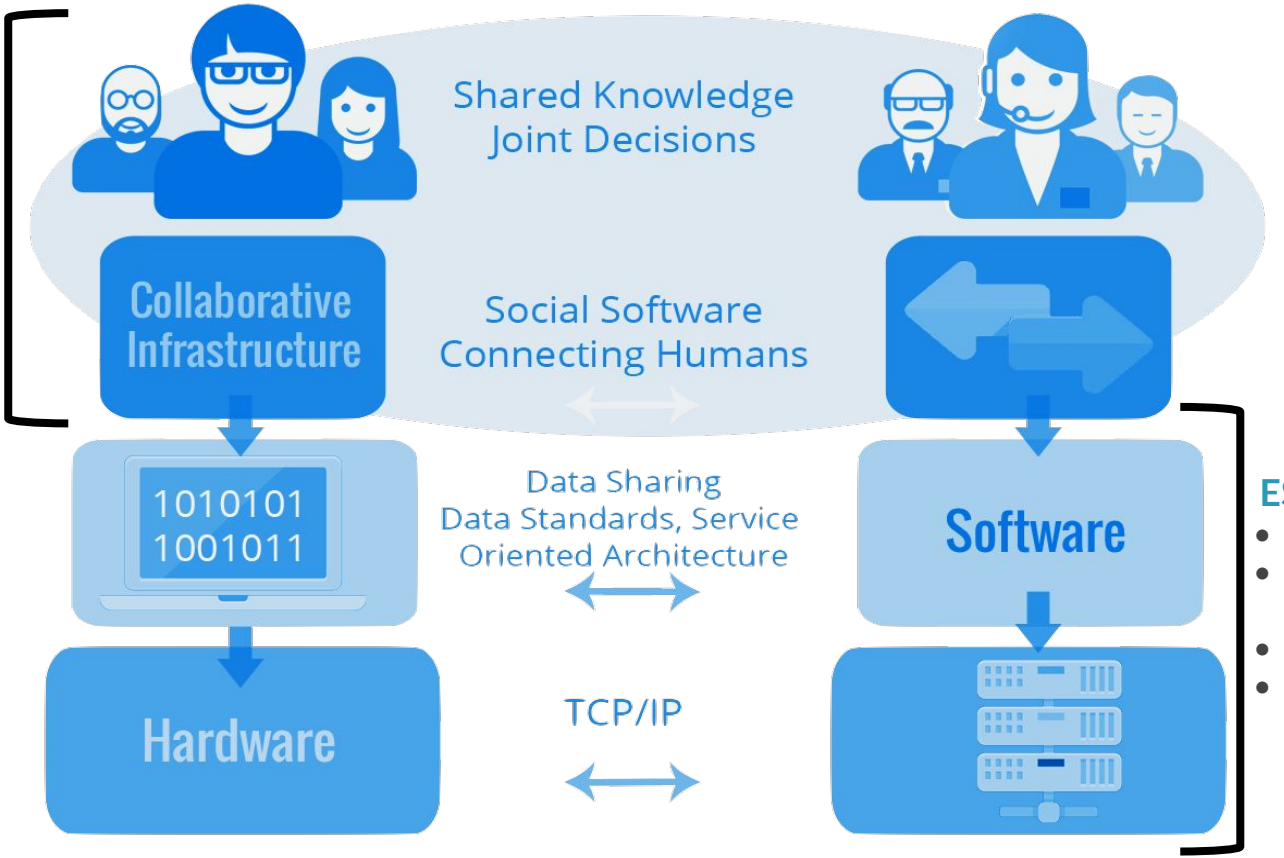
Left to Right:

- Kristina Fauss | Univ. of California-Santa Barbara | Envirosensing Cluster
- Christine Gregg | Univ. of Michigan | Community Resilience Cluster
- Qian Huang | Univ. of S. Carolina | Disaster Lifecycle Cluster
- Sara Lafia | Univ. of Michigan | Discovery Cluster
- Cindy Lin | Univ. of Michigan | Machine Learning Cluster
- Marion McKenzie | Univ. of Virginia | Community Data Cluster
- Ned Molder | Univ. of Wisconsin-Madison | Public Private Partnerships Cluster

ESIP IS AT THE LEVEL OF HUMAN CONNECTION

Generate recommendations and work products.

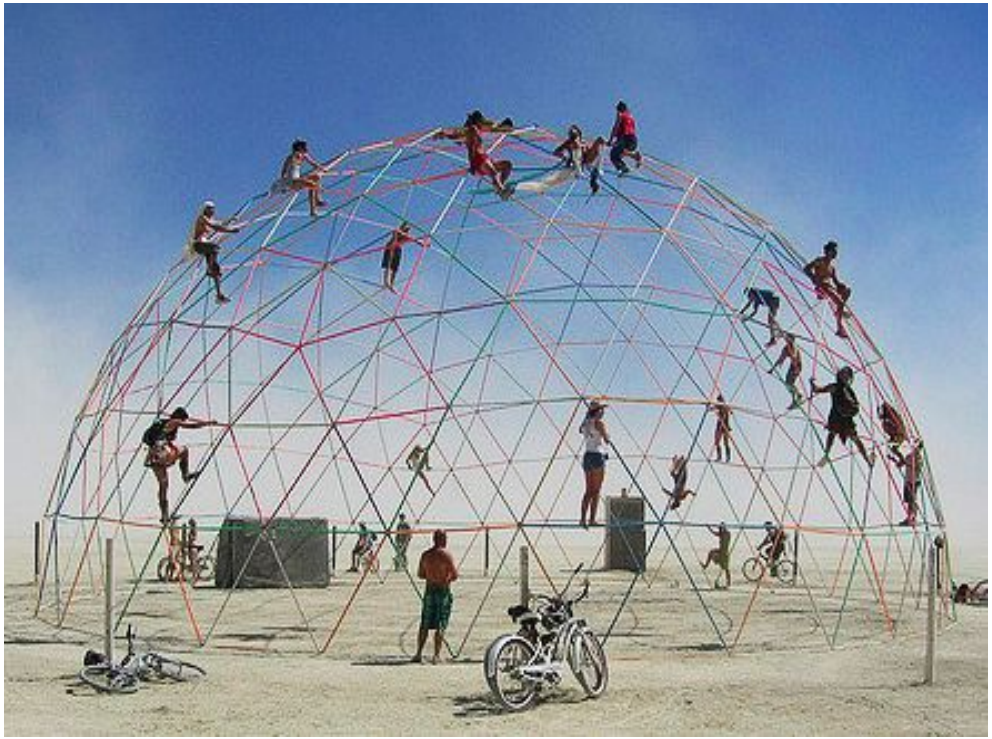
Have a lasting impact in the recommendation of standards.

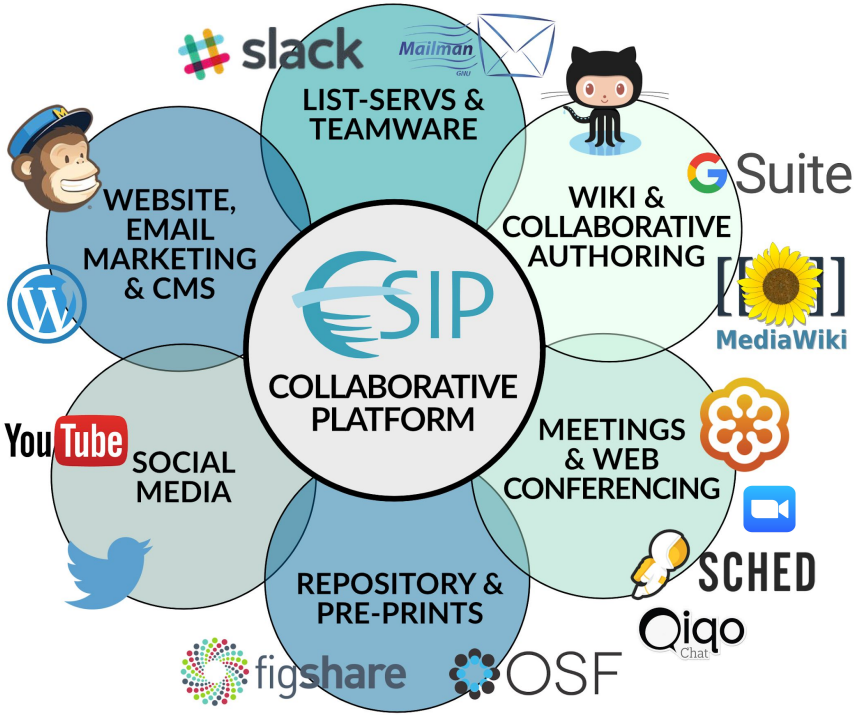


ESIP does not:

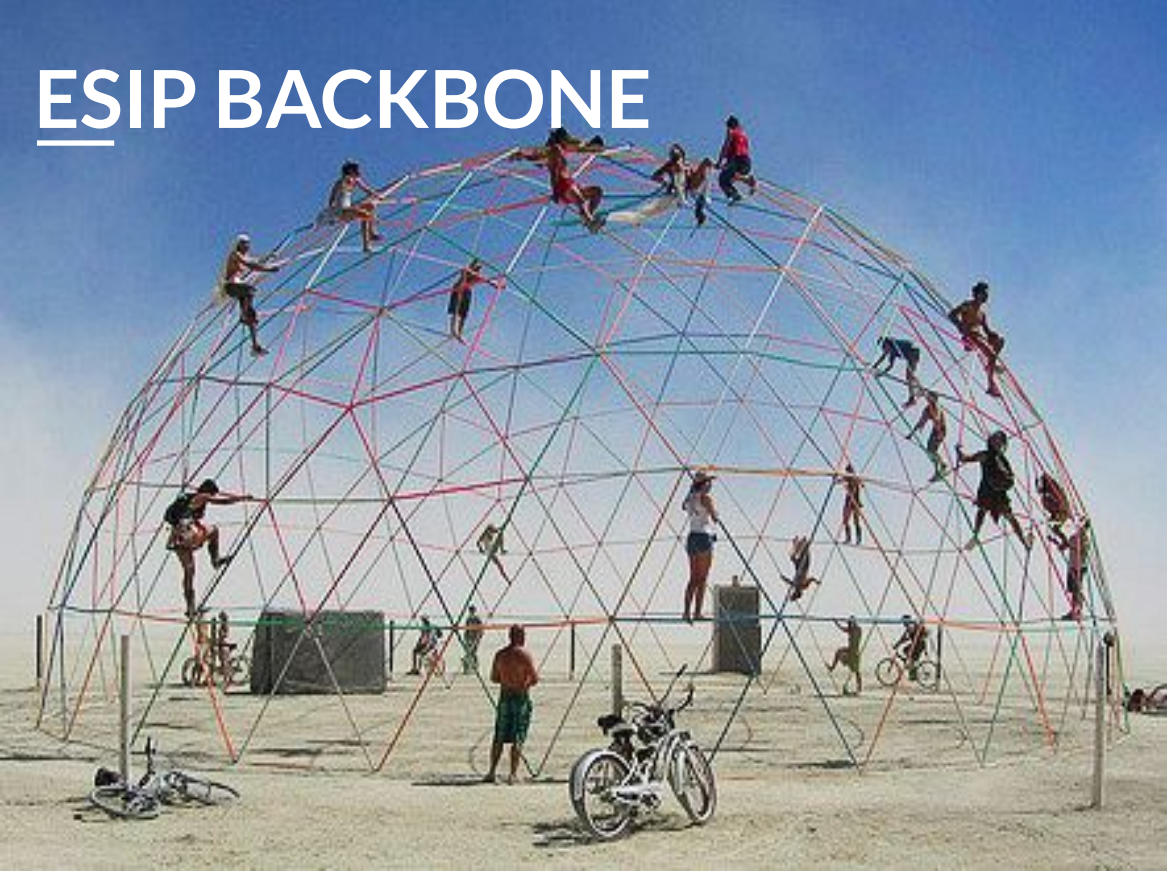
- Provide data
- Sustain cyberinfrastructure
- Develop standards
- Compete with our partners

ESIP BACKBONE





ESIP BACKBONE



Susan Shingledecker
Executive Director

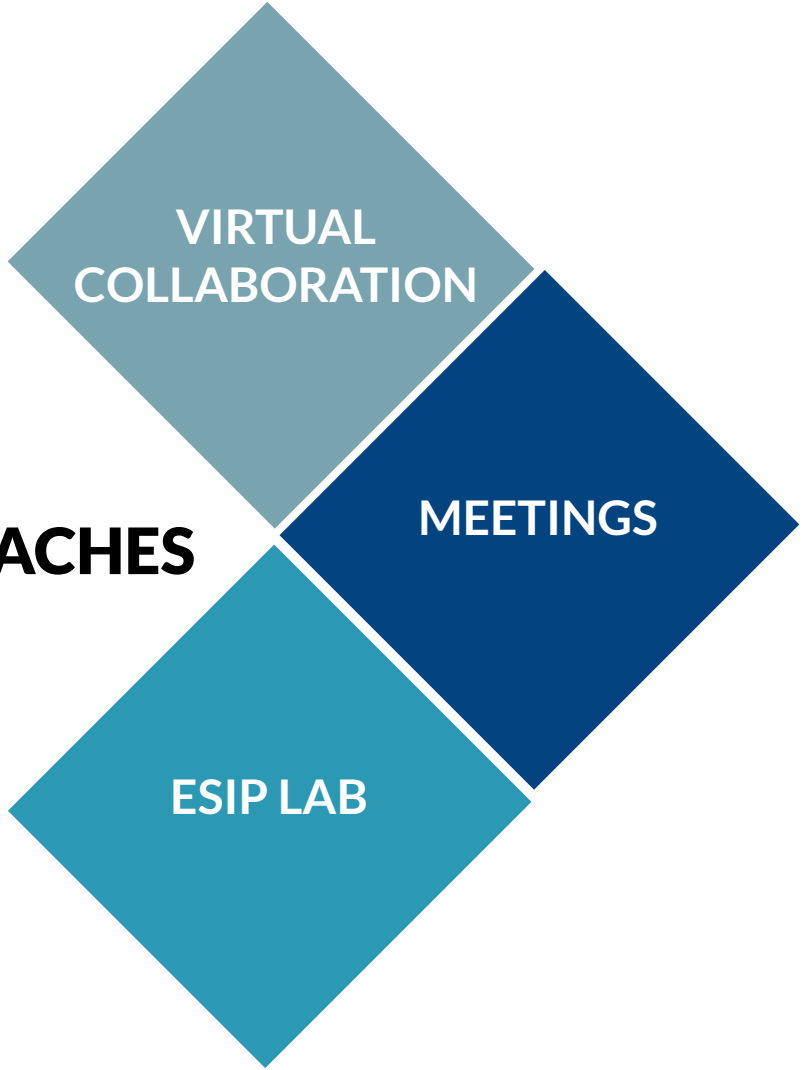
Annie Burgess
Lab Director

Megan Carter
Community Director

Patty Allen
Operations Director

Lindsay Barbieri
Agriculture & Climate Information Fellow

THREE APPROACHES



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

COLLABORATION AREAS

STANDING COMMITTEES

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

CLUSTERS

- Ag & Climate
- Air Quality
- Biological Data Standards
- Cloud Computing
- Community Data
- Community Resilience
- COPDESS
- Community Ontology Repository (COR)
- Data Readiness
- Disaster Lifecycle
- Discovery
- Drones
- E2SIP
- EnviroSensing
- Information Quality
- IM Code Registry
- Machine Learning
- Marine Data
- Physical Sample Curation
- Public-Private Partnerships
- Research Object Citation
- Schema.org
- Semantic Harmonization
- Soil Ontology & Informatics
- Sustainable Data Mgmt

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/COLLABORATE

Data Management Training Clearinghouse

Mailing List | Learn More

Building a registry for online learning resources about research data management (developed in collaboration with ESIP, now supported with other funding).

Data Readiness

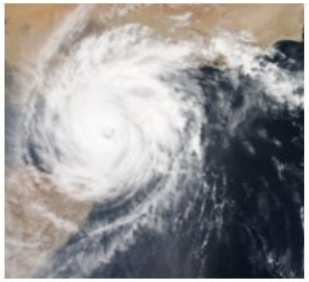
Mailing List | Learn More

Discussing advancements, defining recommendations, and developing tools for open environmental data for artificial intelligence (AI) applications.

Data Stewardship Committee

Mailing List | Learn More

Developing and fostering practices and standards in the field of Earth science informatics.



Disaster Lifecycle

Mailing List | Learn More

Facilitating connections among data providers, managers and developers of disaster response systems and tools, and end-user communities.

Discovery

Mailing List | Learn More

Exploring usage-based discovery, including relationships between datasets and types of usage, from publications to applications to policy-making.

Drones

Mailing List | Learn More

Furthering the development and use of drones as as tools for Earth science applications and research and as instruments with unique data management and standardization challenges.

Education Committee

Mailing List | Learn More

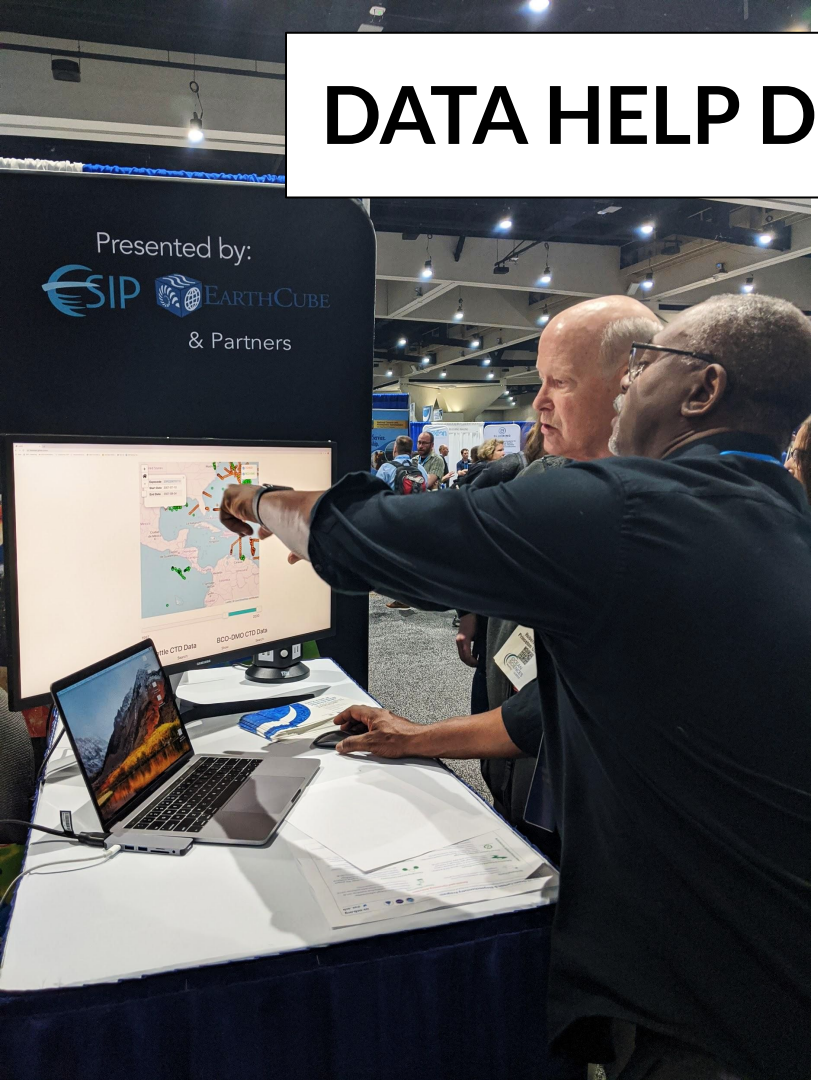
Promoting the development and dissemination of Earth science educational products, information, and tools to a broad user community including educators and learners at all levels in both formal and informal settings.

Enviro Sensing

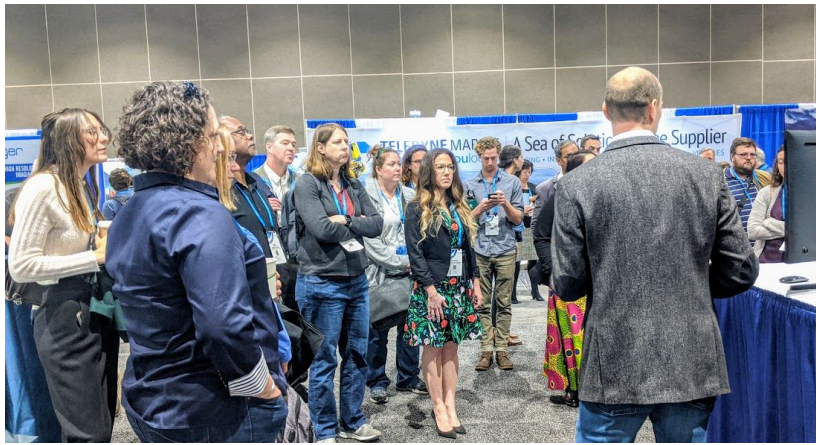
Mailing List | Learn More

Sharing and developing best practices for real-time sensor network data quality and deployment strategies.

DATA HELP DESK (IN-PERSON & VIRTUAL)



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 FAIR is a program of ESIP, EarthCube, AGU, EGU & their partners.

THANK YOU CLUSTER LEADERS!!

Scotty Strachan
Renée Brown
Ge Peng
David Moroni
Yaxing Wei
Kristin Vanderbilt
Colin Smith
Anne Wilson
Mark Parsons
Adam Shepherd
Doug Fils
Ruth Duerr
Gary Berg-Cross
Margaret O'Brien
Beth Huffer
Mike Little
Karl Benedict
Crista Straub
Carl Shapiro

Bill Teng
Brian Wee
Carolina Berys-Gonzalez
Chris Olson
Patrick Quinn
Arika Virapongse
Kerstin Lehnert
Lewis McGibbney
John Graybeal
Karen Moe
Dave Jones
Ted Habermann
Jane Wyngaard
Lindsay Barbieri
Steve Diggs
Andrea Thomer
Chris Lynnes

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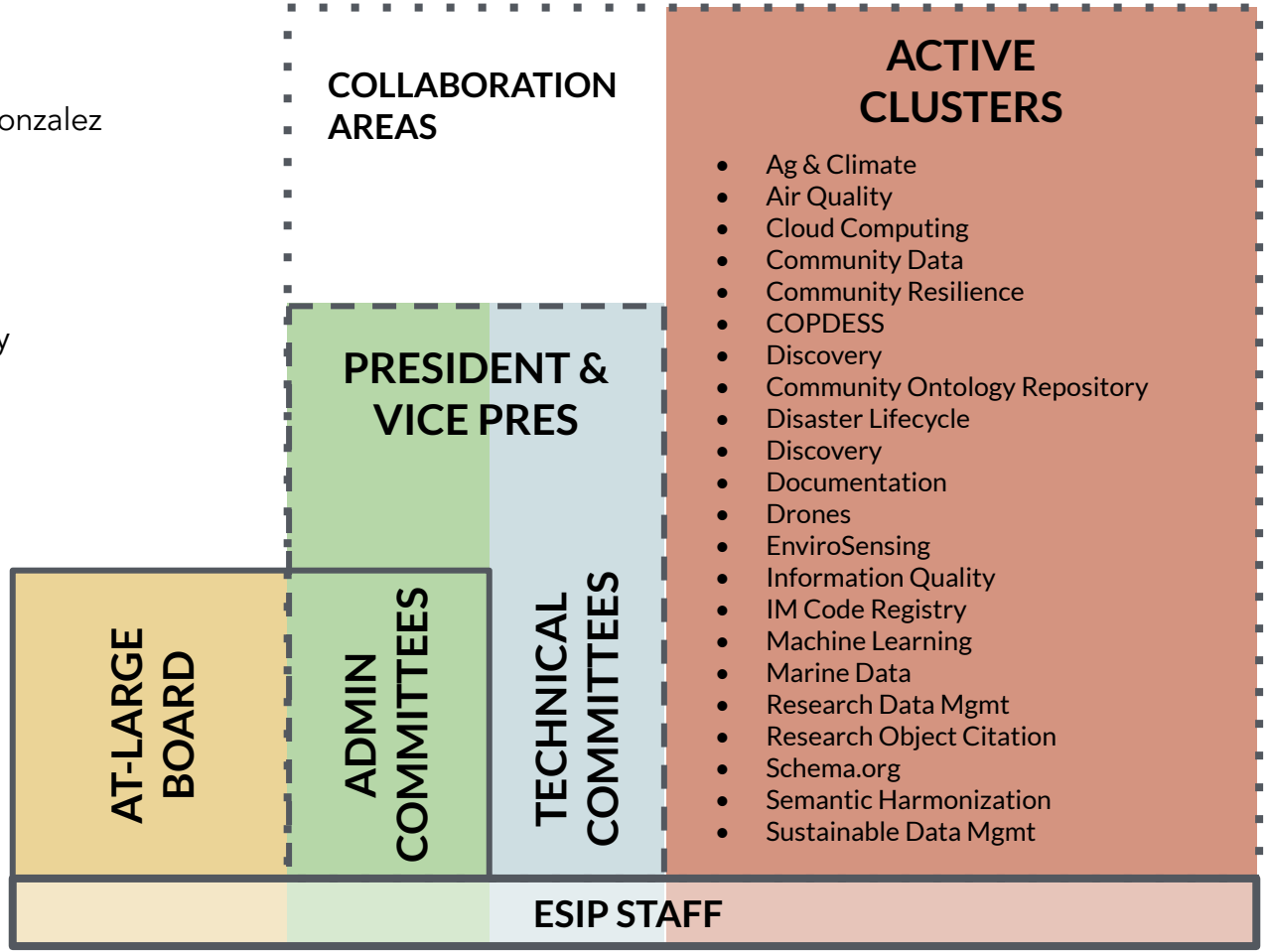
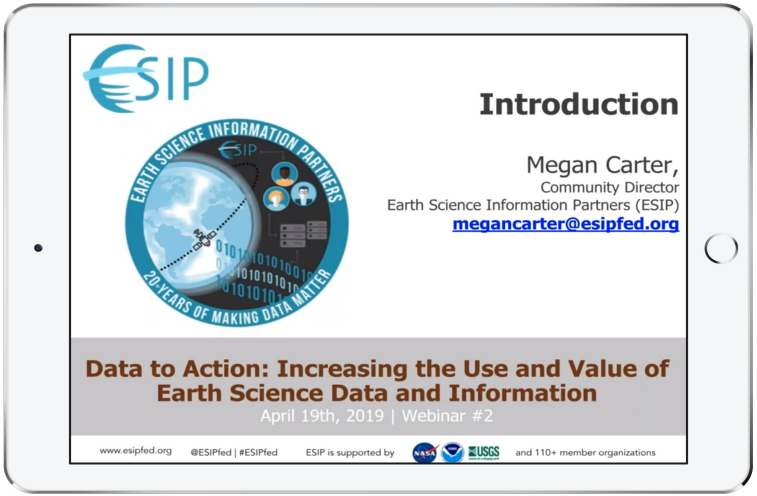


COLLABORATION AREA HIGHLIGHTS WEBINAR

Annual webinar featuring lightning talks from ESIP collaboration areas.



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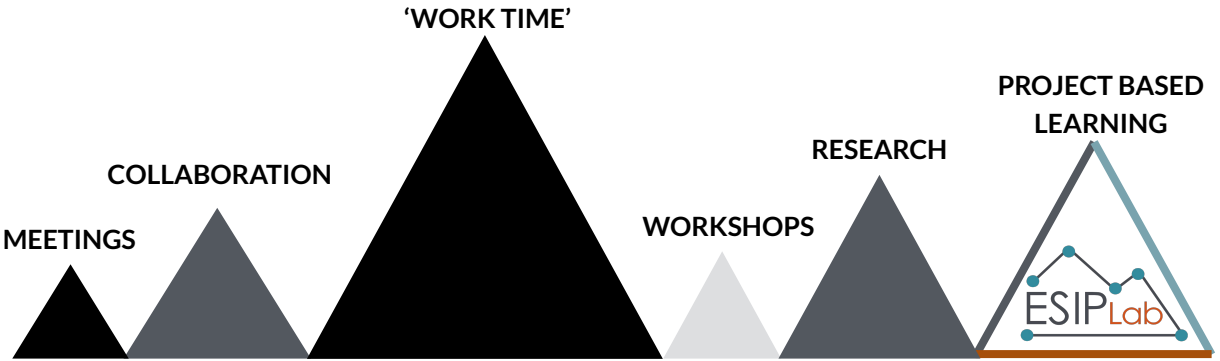
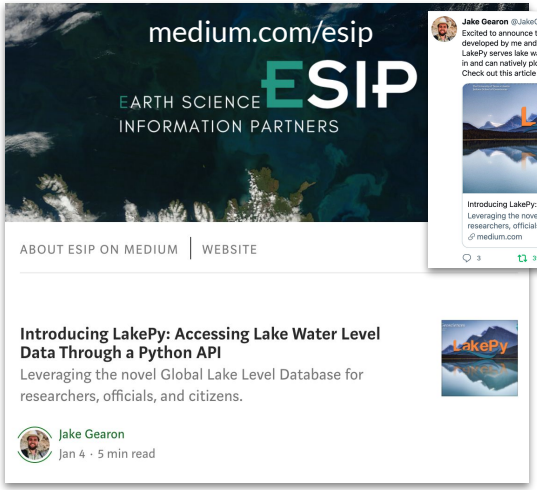
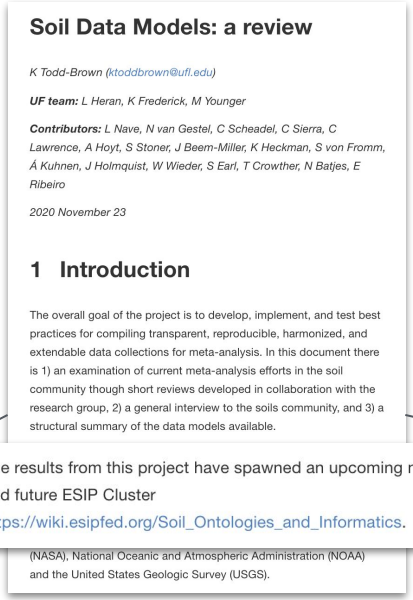
ESIP LAB

WE FACILITATE PROJECT-BASED LEARNING OPPORTUNITIES FOR EARTH SCIENTISTS TO INCREASE THEIR TECHNICAL SAVVY, WHILE INCREASING OUR COLLECTIVE KNOWLEDGE OF EARTH SYSTEM SCIENCE.



ESIP LAB





Soil Data Models: a review

K Todd-Brown (ktoddbrown@ufl.edu)

UF team: *L Heran, K Frederick, M Younger*

Contributors: *L Nave, N van Gestel, C Scheadel, C Sierra, C Lawrence, A Hoyt, S Stoner, J Beem-Miller, K Heckman, S von Fromm, Á Kuhnen, J Holmquist, W Wieder, S Earl, T Crowther, N Batjes, E Ribeiro*

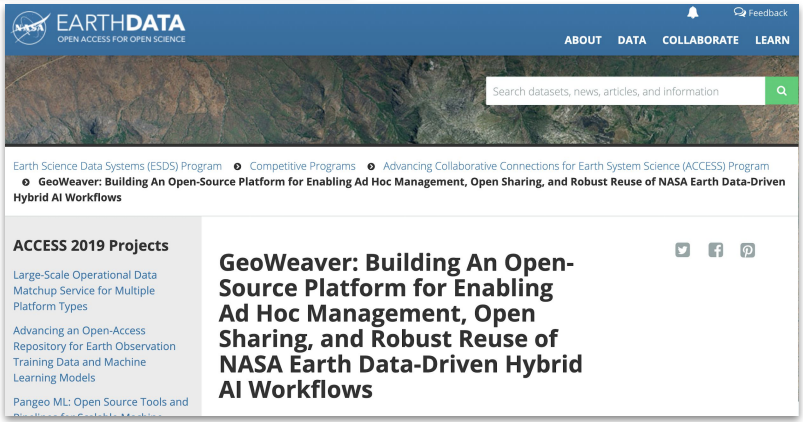
2020 November 23

1 Introduction

The overall goal of the project is to develop, implement, and test best practices for compiling transparent, reproducible, harmonized, and extendable data collections for meta-analysis. In this document there is 1) an examination of current meta-analysis efforts in the soil community though short reviews developed in collaboration with the research group, 2) a general interview to the soils community, and 3) a structural summary of the data models available.

(NASA), National Oceanic and Atmospheric Administration (NOAA) and the United States Geological Survey (USGS).

The results from this project have spawned an upcoming manuscript and future ESIP Cluster https://wiki.esipfed.org/Soil_Ontologies_and_Informatics.



What our PIs have said about working with the ESIP Lab:

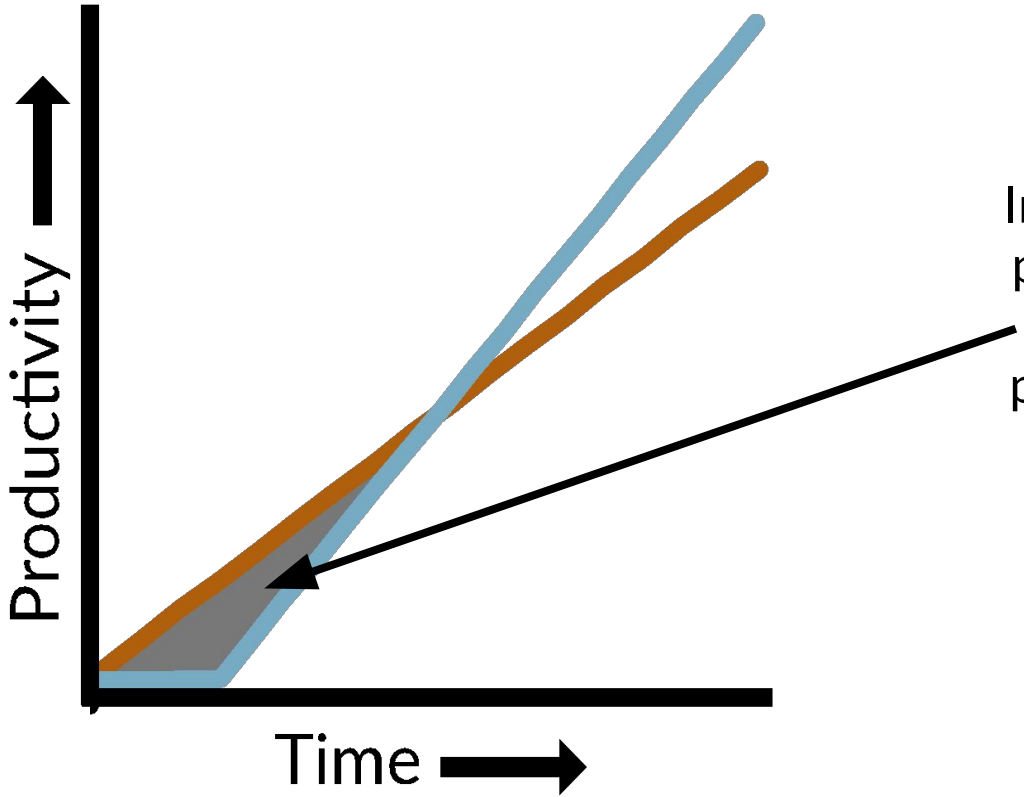
"ESIP Lab has been phenomenal in kickstarting projects that would otherwise not have sufficient funds to begin."

"This has been so fun and thoroughly engaging."

"I thought ESIP did a great job supporting this project and I appreciate the support."

"The ESIP Lab award is wonderful for developing synergistic projects with researchers from different disciplines and interests."

OUR EXPERIENCE IN PROJECT BASED LEARNING

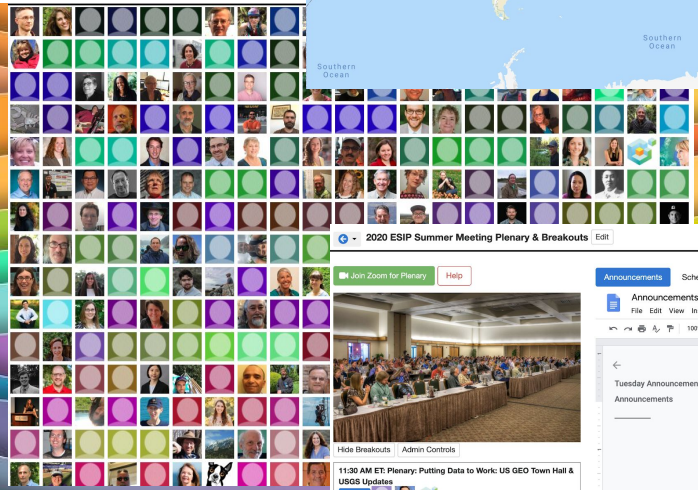


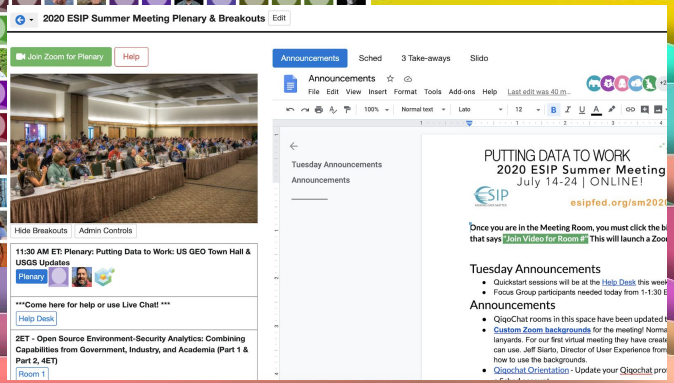
Increasing cloud skills through project-based learning avoids the perception of lost productivity while developing new skills.

TRADITIONAL MEETINGS

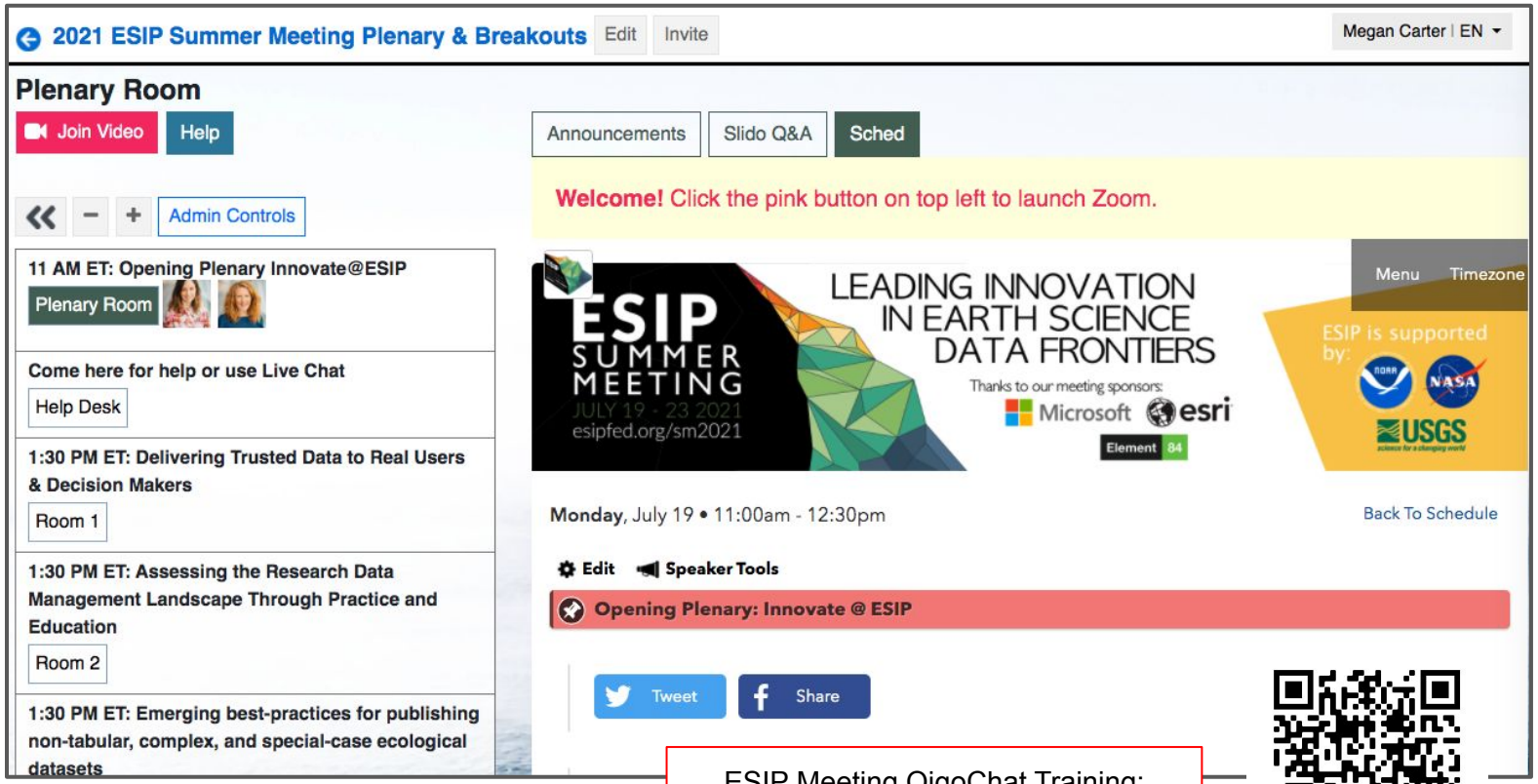
ESIP MEETINGS

- ❑ Plenaries
- ❑ Breakouts
- ❑ Networking Time
- ❑ Unconference Time
- ❑ Co-located Events





WHAT MAKES ESIP MEETINGS DIFFERENT



ESIP Meeting QiqoChat Training:
https://youtu.be/t--kBwwM4DI

FUNDING FRIDAY AT THE SUMMER MEETING

qiqochat.com/breakout/0/NvDczLZrDnlTQHCzckzKPSqUj

Apps

2020 FUNding Friday Edit

Erin Robinson 0

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FUNding Friday

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2020 ESIP Summer Meeting | Putting Data to Work | #ESIPFed

FUNding Friday

Thanks to: **Element** 84

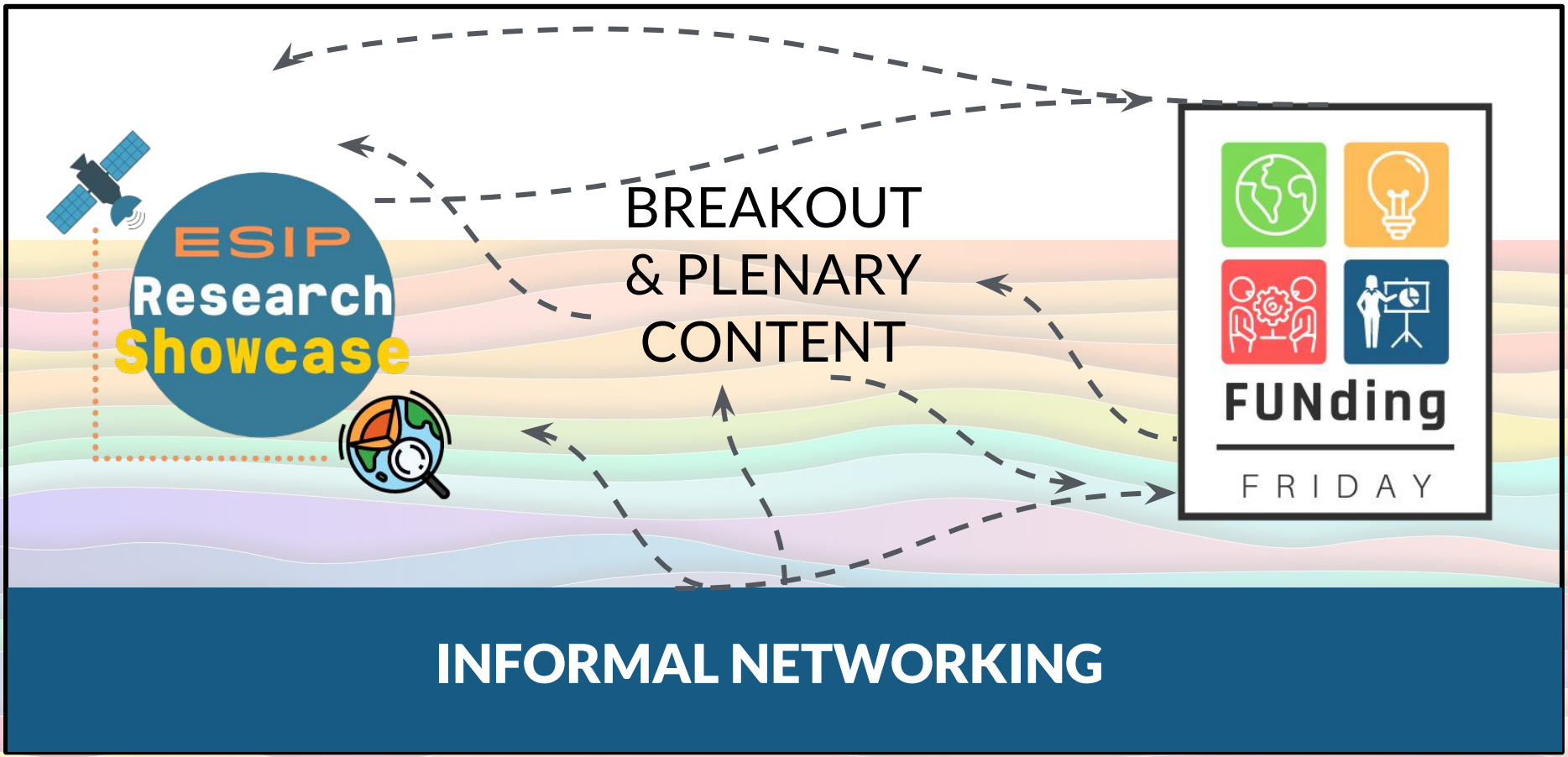
Here's how it works:

Come up with an Idea

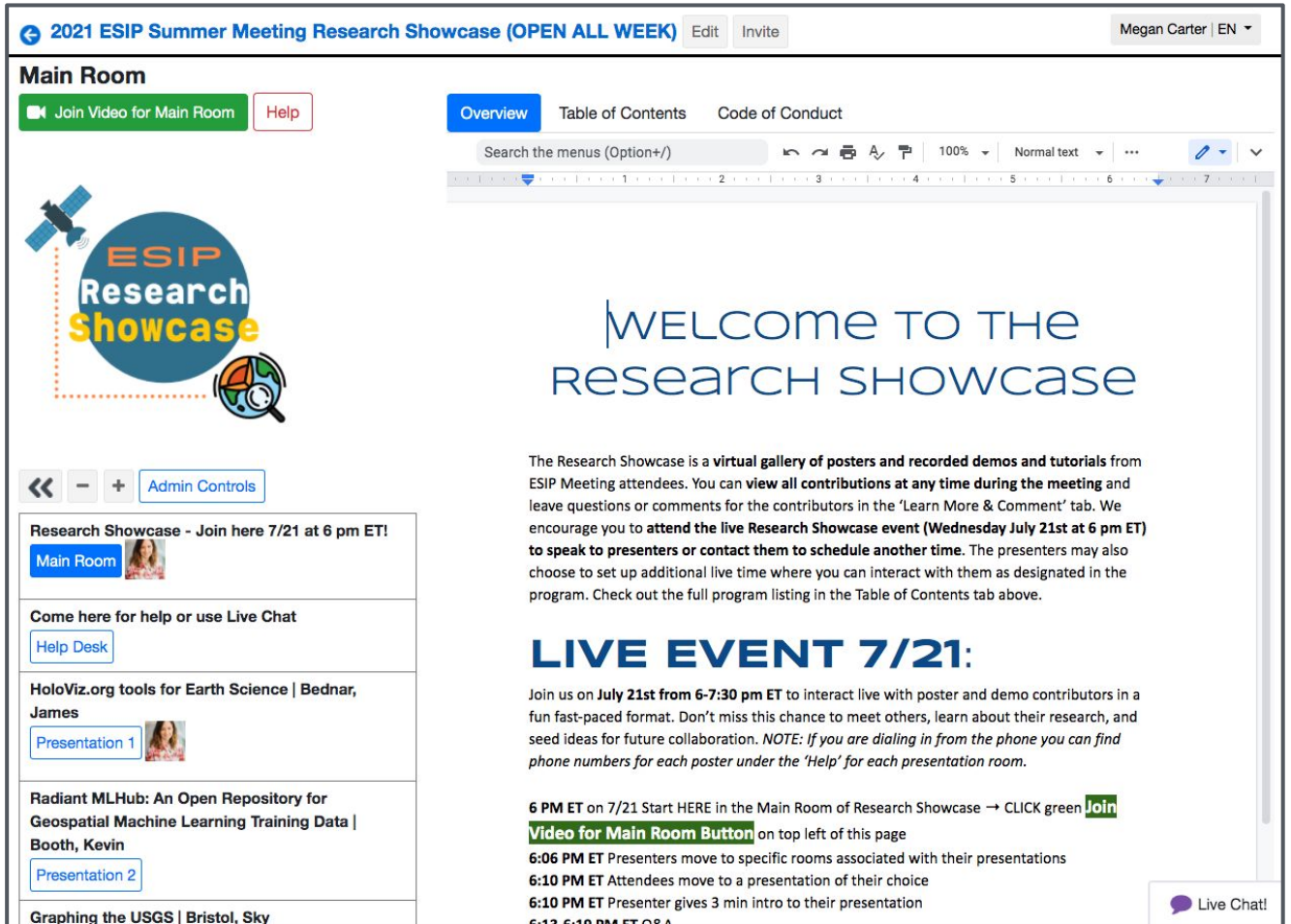
Make a poster with peers

Guidelines

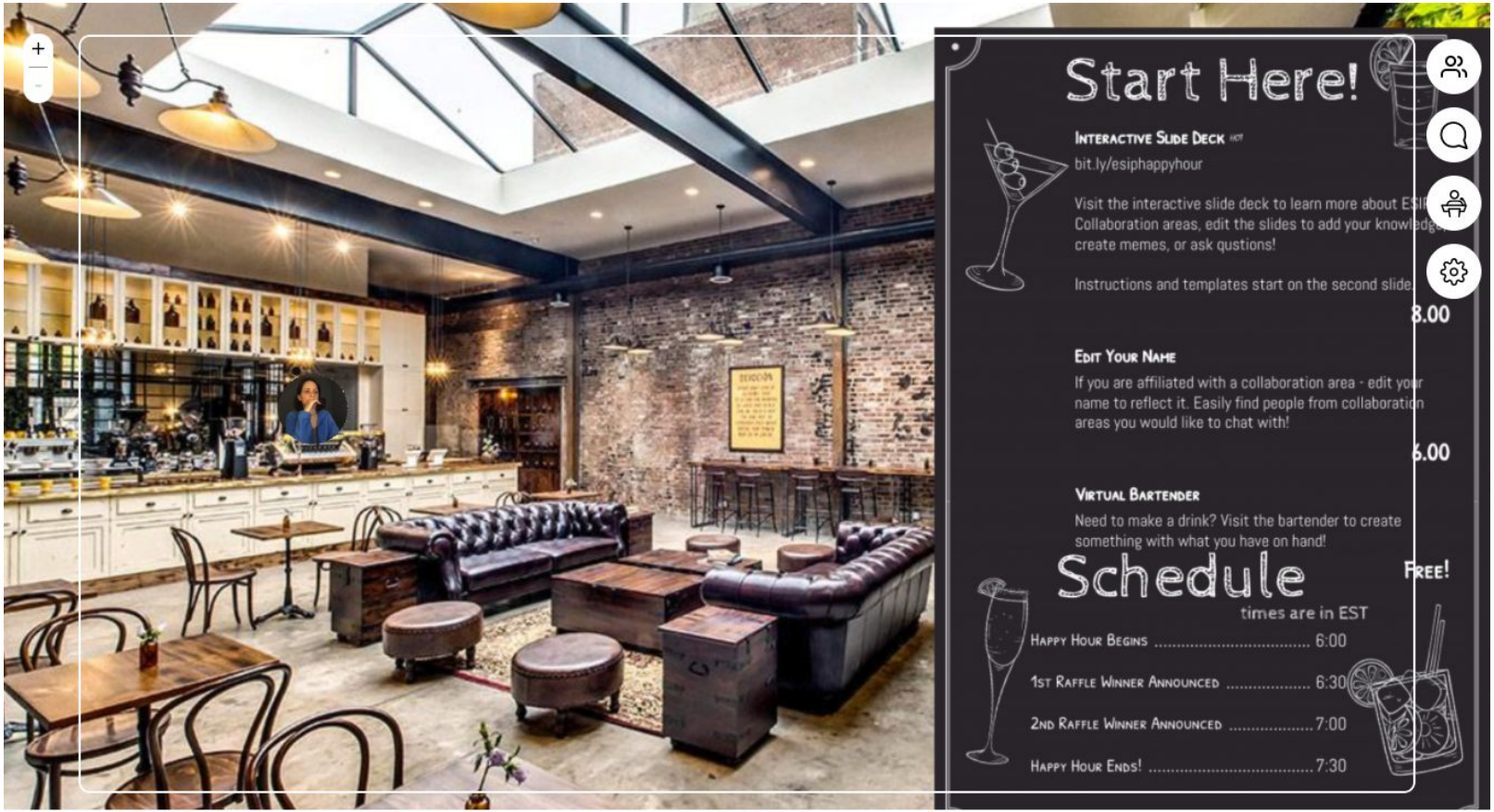
WHAT MAKES ESIP MEETINGS DIFFERENT



RESEARCH SHOWCASE



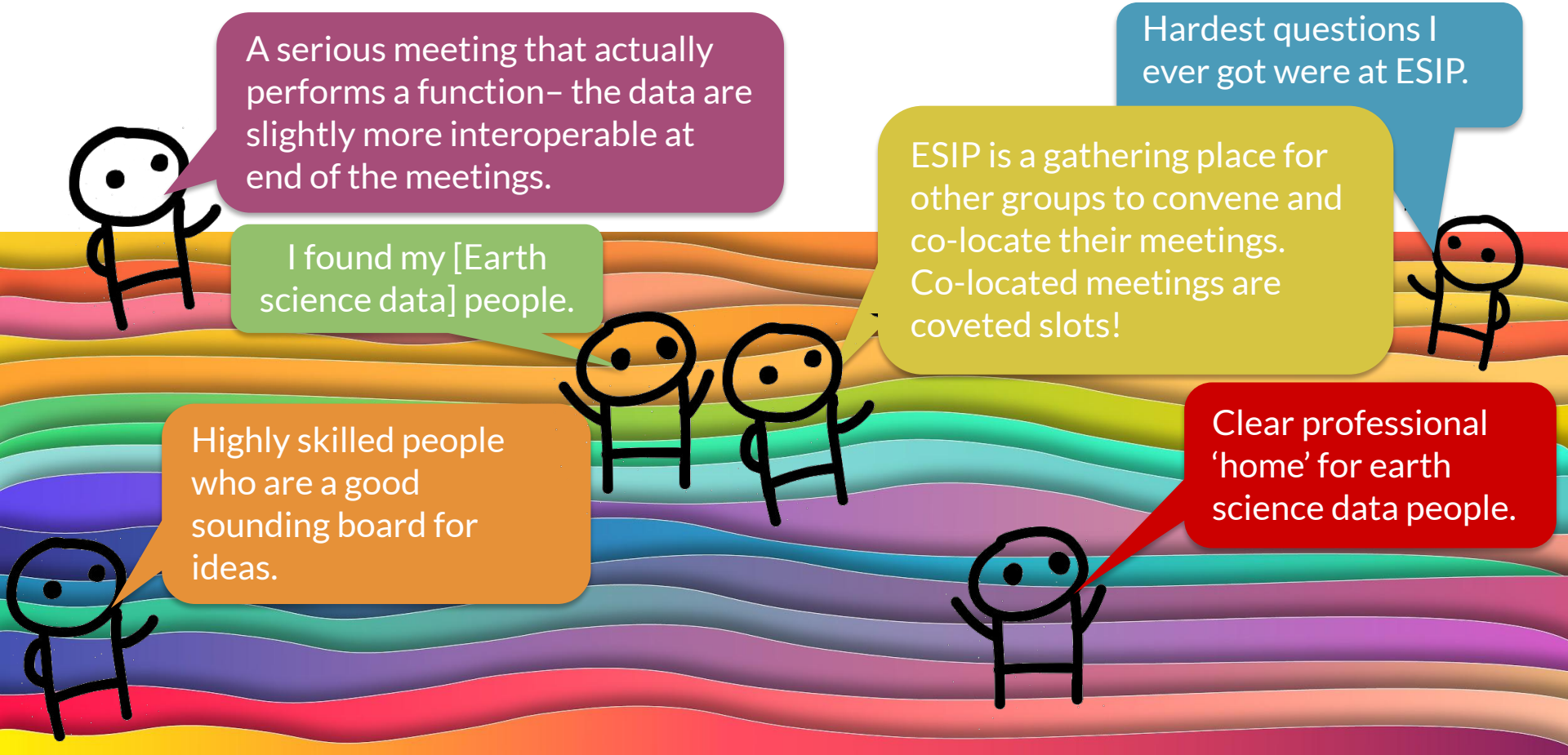
COFFEE BREAKS & HAPPY HOUR



Coffee Break
powered by wonder

Get Wonder
Leave Room

WHAT THE ESIP COMMUNITY SAYS ABOUT OUR MEETINGS



MEETING HIGHLIGHTS WEBINAR

Thursday August 12th at 12 pm ET

DIDN'T GET A CHANCE TO ATTEND ALL THE SESSIONS YOU WANTED TO?

ESIP ENGAGEMENT OPPORTUNITIES

Discover

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

Innovate

Utilize 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.

MAKING DATA MATTER
esipfed.org | #ESIPfed

Questions?
staff@esipfed.org

Join the Monday Update Mailing List:
eepurl.com/cFmghz

ESIP Meetings
ESIPFED.ORG/MEETINGS

ESIP Collaboration Areas
ESIPFED.ORG/COLLABORATE

ESIP Lab
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