



STATE OF ESIP



2020 WINTER MEETING

January 7-9, 2020

Bethesda North Marriott, Bethesda, MD





Citation: Earth Science Information Partners (2020): Earth Science Information Partners (ESIP) Annual Report 2019. ESIP.

Online Resource.
<https://doi.org/10.6084/m9.figshare.11499387>

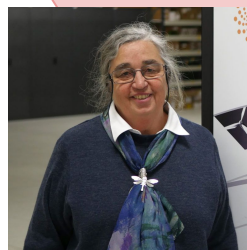
2019 ESIP Elected Leadership



Karen Moe



Mark Parsons



Lesley Wyborn



President
Karl Benedict



Vice President
Mike Daniels



Governance
Denise
Hills



Partnership
Nancy
Hoebelheinrich



Finance
Rebecca
Koskela



Nominations
Danie
Kinkade

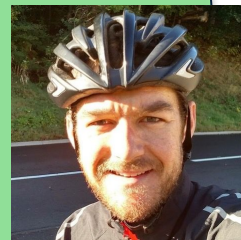
Data Stewardship
Ruth Duerr



Education
Becky Reid



IT&I
Dave
Blodgett



Semantic Tech
Lewis McGibbney



Program
Committee

New Partners in FY 2019



Dept. of Earth
Sciences



TAG LLC



ONTOLOGPSMW



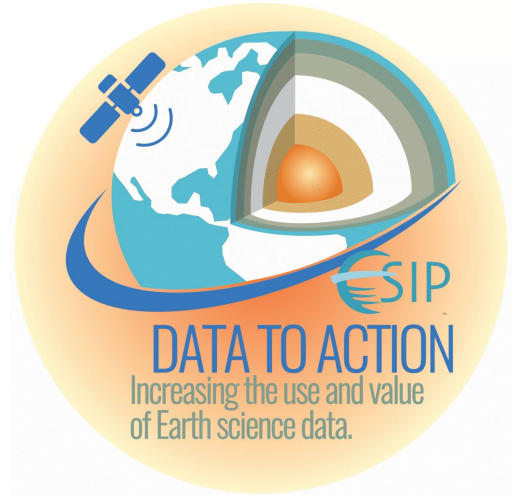
University of Nevada, Reno
Cyberinfrastructure

ESIP Shared Agenda

2016-2020 Strategic Plan

- Increase the use and value of Earth science data and information.
- Strengthen the ties between observations and user communities
- Promote techniques to articulate and measure the socioeconomic value and benefit of Earth science data, information, and applications.
- Position ESIP to play a major role in Earth science issues

2019 Annual Theme



Values

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

Teacher Workshop



ORL Definitions	
ORL 1	Data available NOW 24/7 & Secure (SSL / HTTPS) Immediate SA & Decision Making DM (30 sec decisions) No Down Time – Operational Data is Critical to Decision Making Person available to contact (Fix link or service, report issues for open ticket)
ORL 2	Data available regularly, SA & DM (30 sec decisions) Event-driven, may be delayed due to acquisition and processing time required Likely very useful for Situational Awareness (SA) & Decision Making (DM) Person available to contact
ORL 3	Emerging operational data and/or mature testing phase Data not guaranteed Potential to improve SA and DM Target operations in 6-12 months
ORL 4	'New' emerging datasets, applications testing phase, training available Being evaluated for accuracy, validated, usefulness Target for operations 12+ months Not likely to be immediately useful for operations but could be

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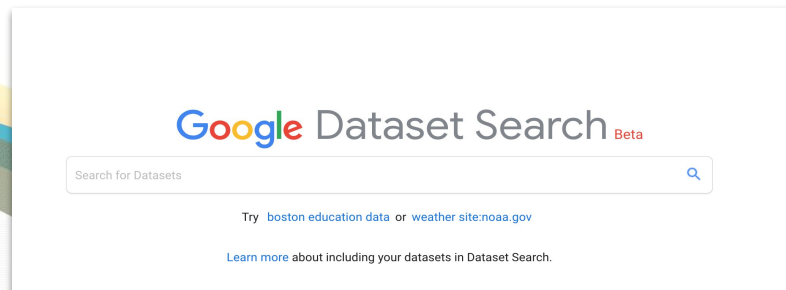
Earth Science Information Partners: Promoting Innovation for Earth Science Data

on 20 JUN 2019 | in [Public Sector](#) | [Permalink](#) | [Share](#)

The Earth Science Information Partners (ESIP) is a US-based nonprofit organization funded by NASA, NOAA, and the USGS. ESIP is playing a critical role in facilitating collaborative efforts to improve the collection, stewardship, and use of Earth science data and information.

As part of the [Amazon Sustainability Data Initiative](#), we invited Dr. Annie Burgess, ESIP Lab Director, to share the story of how ESIP is advancing knowledge of Earth-system science.

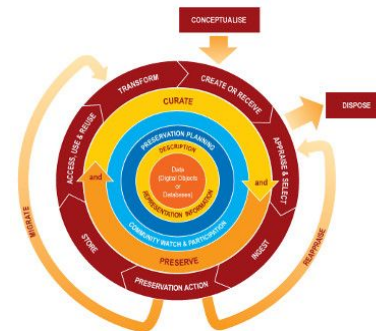
The Challenge of Managing and Extracting Insights from Large Data Portfolios



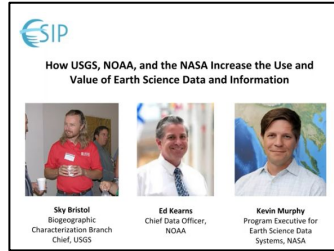
Data Management Training (DMT) Clearinghouse

- Nearly 400 training resources published
- 100 more in the publication queue
- 2 working groups needing more members
 - Metadata enhancement
 - Assessment frameworks

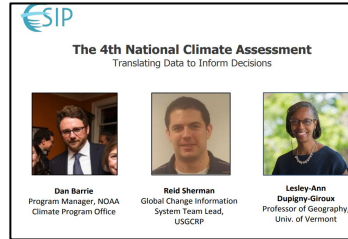
For questions or feedback, please contact clearinghouseEd@esipfed.org.



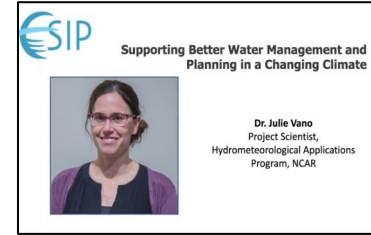
2019 Webinar Series



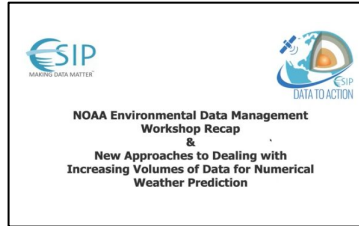
Webinar #1: How NASA, NOAA, USGS Increase the Use and Value of Earth Science Data & Information



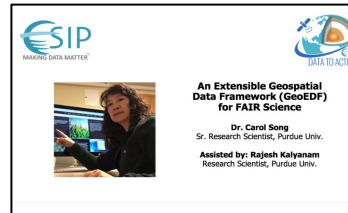
Webinar #3: The 4th National Climate Assessment: Translating Data to Inform Decisions



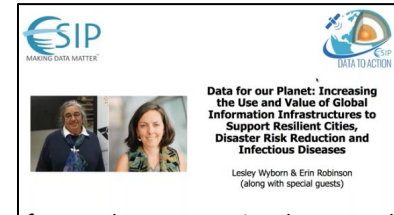
Webinar #4: Supporting Better Water Management and Planning in a Changing Climate



Webinar #6: 2019 NOAA EDM Workshop Recap & New Approaches to Dealing with Increasing Volumes of Data for Numerical Weather Prediction



Webinar #7: An Extensible Geospatial Data Framework (GeoEDF) for FAIR Science



Webinar #8: Data for our Planet: Increasing the Use and Value of Global Information Infrastructures to Support Resilient Cities, Disaster Risk Reduction and Infectious Diseases


- Theme: Data to Action: Increasing the Use & Value of Earth Science Data & Information
- Eight webinars were presented from March to November.
- The series is available on the ESIP YouTube Channel and the ESIP Figshare Repository.

Collaboration Area Outputs & Connections

Assembly Endorsed Outputs

- Data Citation Guidelines for Earth Science Data Version 2 (July)
- Software and Services Citation Guidelines and Examples (January)

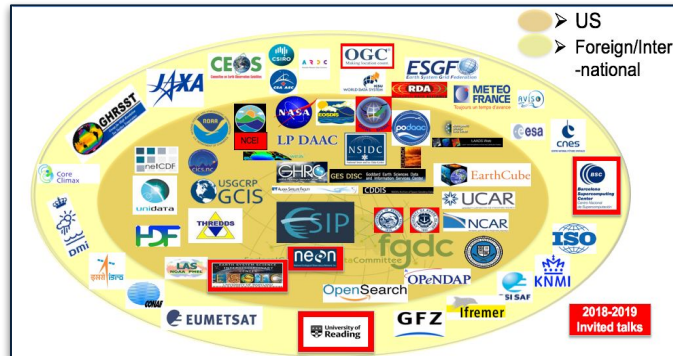
Promoting Cross Collaboration Area Connections



ESIP Collaboration Area Highlights Webinar

14 Groups Participated

Collaboration Areas (e.g., **Information Quality** and **Envirosensing**) grew international connections.



Young Clusters Off & Running in 2019

Community Resilience
Machine Learning
Marine Data
Schema.org
Semantic Harmonization
Research Object Citation

Machine Learning
Cluster Newsletter Initiated!

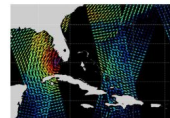
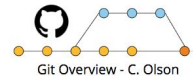
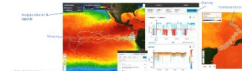
Marine Data Cluster in 2019



Outreach & OceanHackWeek
S. Diggs, J. Gum



CCHDO CF compliant NetCDF
S. Diggs, C. Berys-Gonzalez, J. Gum



<http://wiki.esipfed.org/index.php/MarineData>

Positioning ESIP Experiment

- ESIP Staff participated in SGCI Bootcamp and created a pitch deck
- New 1-pager describing ESIP, Annual Report for FY18 and FY19
- Worked with a PR consultant from July-December with several media pieces

Result: PR not exposure that ESIP needs, looking for more organic brand building



SUPPORTING THE COMMUNITY IN AND VALUE OF DATA

Program of NASA

MAKE YOUR DATA MATTER

Earth science researchers generate and analyze larger volumes of data than ever before. With these advances come new challenges that can be overwhelming for an individual researcher or organization. In addition, funders and publishers are increasingly imposing new requirements for making data FAIR (Findable, Accessible, Interoperable, and Reusable). How can you adapt to these changes and maximize the value of your data?

The Earth Science Information Partners (ESIP) is a community-driven organization that facilitates connections between people allowing them to leverage the collective expertise and technical capacity to address pressing Earth science data challenges.

Through ESIP, you can access best practices that make data matter for others as scientists, decision-makers, and the public. You can join or start a new collaboration related to improving the creation, management, distribution, and analysis of Earth data. You can even apply for innovative grant funding to develop an innovative solution to a pressing data challenge.

30+
COLLABORATION
AREAS

1000+
ACTIVE
PARTICIPANTS

\$500K/YR
GRANTED TO
COMMUNITY

www.esipfed.org

SUPPORT:



ESIP Introduces New Data and Software Citation Guidelines Aimed at Making Earth Science Research FAIR

GlobeNewswire · Last month



ESIP Develops Earth Science Data Operational Readiness Levels to Empower Disaster Responders

GlobeNewswire · Nov 3



ESIP 2019 Summer Meeting Attracts Top Science and Technology Leaders to Collaborate on How to Put Earth Science Data to Work

GlobeNewswire · Jul 31



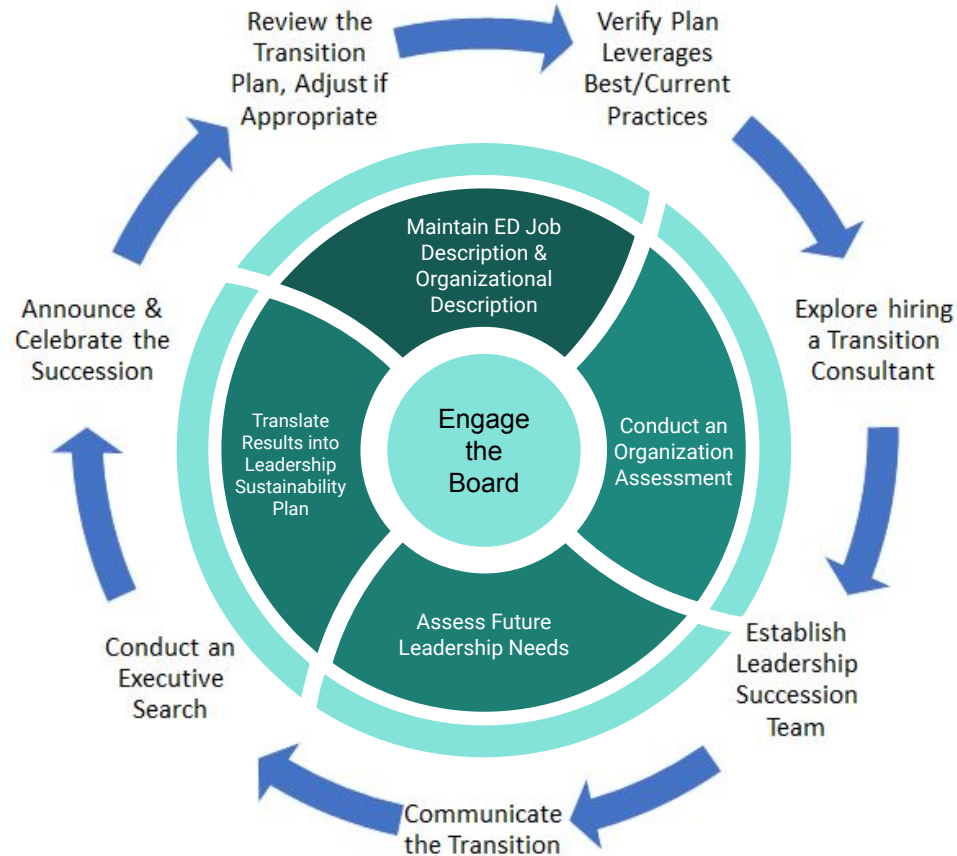
Executive Director Transition

We will be hiring a new Executive Director in 2020 - target start: September.

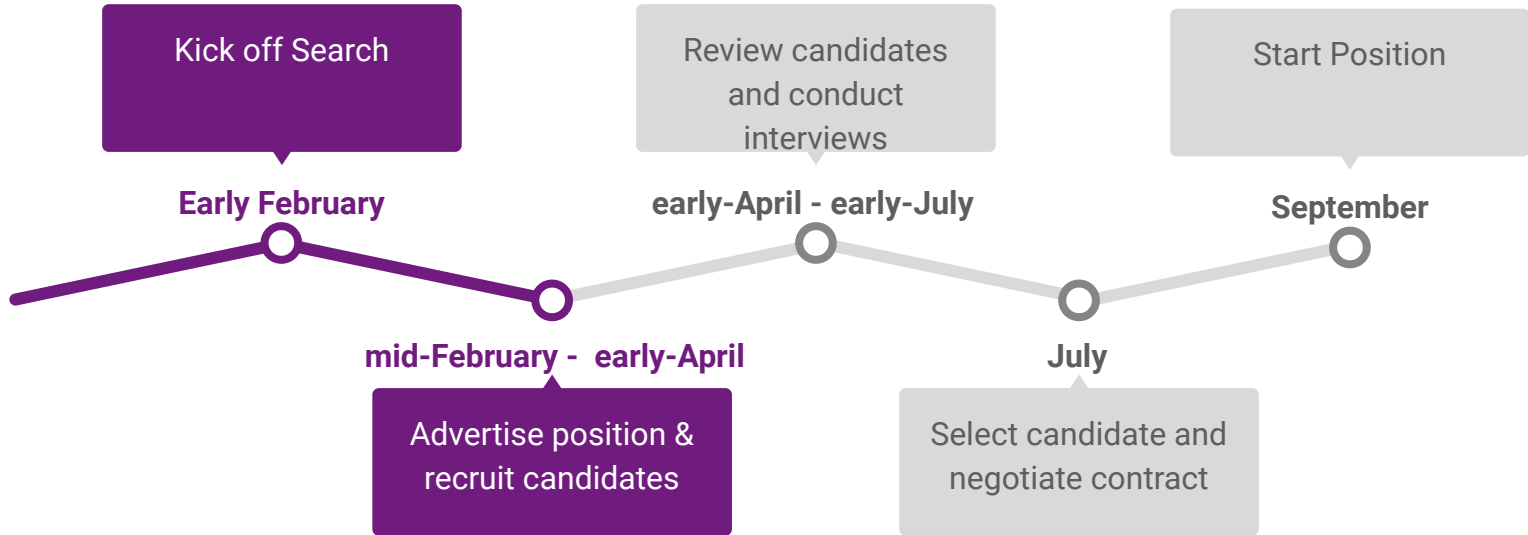
- We have been preparing for the inevitability of an ED transition since our previous transition in 2014
 - Developing a “planned transition” plan informed by best practices
 - Identifying key roles and tasks
 - Increasing documentation of roles and activities - for both ESIP Staff and volunteer leadership
 - Building Board capacity

The Board is finalizing the search strategy and plans on kicking off the process in early February. We will share updates as we hit key milestones and points for broader community engagement in the process.

Executive Director Transition



Executive Director Transition



Staff Report



Erin Robinson
Executive Director



Annie Burgess
Lab Director



Megan Carter
Community Director



Dan Keyes
Operations Coordinator



Samantha Sands
Meetings Director

Documentation & Systems

- ™ of logo and tagline
- Community Guidebook drafted by Megan Carter
- How it gets done - internal docs
- On/Offboarding for volunteer leaders
- On/Offboarding for staff

ESIP Financial Updates

ESIP's budget is ~\$1.7 million

- Received federal negotiated indirect rate (FY18 - 16.91%)
- Successful completion of FY19 Audit
- FY20 amended budget approved at January 2020 Board Meeting
- NOAA renewed ESIP funding 2020-2022; We will be submitting renewals to USGS and NASA this spring

ESIP's Strategic Partnership



Goals of ESIP's Organizational Evaluation

- 1) Identify ESIP's areas of success
- 2) Identify challenges & opportunities for improvement
- 3) Identify new strategic directions
- 4) Get a pulse on how the ESIP community perceives and experiences ESIP

Process

Timeline: April-June 2019

Data:

- (Primary) Interviews with 25 individuals during May-June 2019
- Interviews with 17 individuals during June 2018-April 2019 for the Making Data Matter ESIP project
- Comments from session participants (~15) at ESIP's 2019 winter meeting

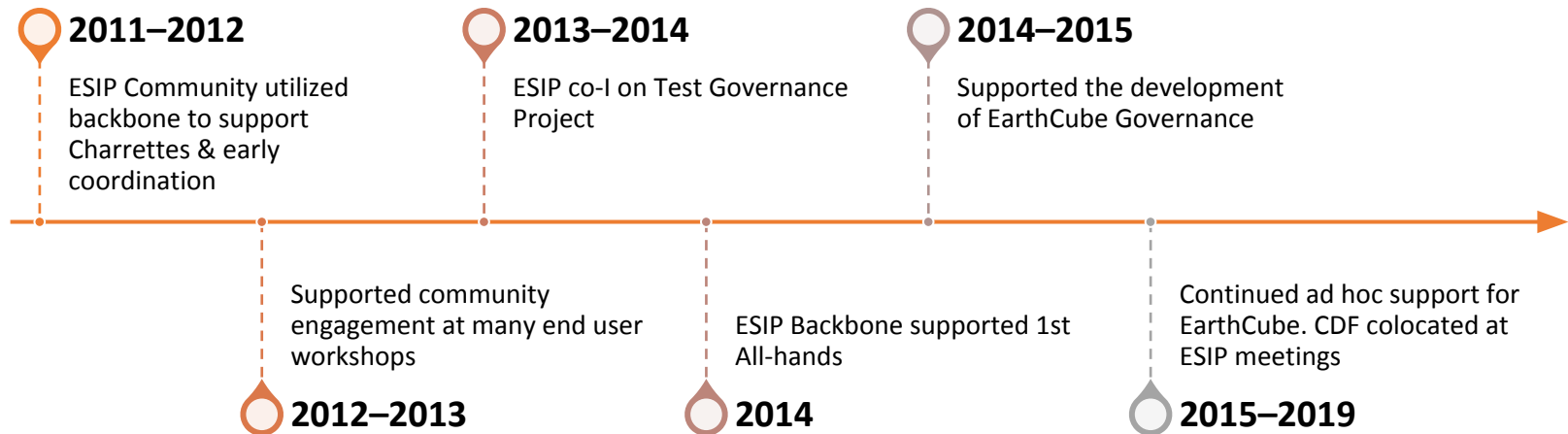
Analysis: Data were analyzed qualitatively

Note: Evaluation designed to build off of the 2016 evaluation

Strategic opportunities for ESIP (con't)

- International opportunities (n=11 caution=4)
- Interoperability & integration of data (n=9)
- Facilitate use of the cloud for Earth Science data (n=7)
- Development of data ethics, data misuse, and trusted data (n=6)
- Better data management by providing training and skills development (n=6)
- Application of data for decision-making (n=5)
- Address the challenge of increasing data volume (n=5)
- Address AI & machine learning (n=3)
- Align research data management with national cyberinfrastructure (n=2)
- Address geographical information systems (n=2)
- Take on the role as a broker between communities (n=2)

ESIP & EarthCube



ECO - Data Community and Training

Lead: Erin Robinson

Goals

- Activities to engage and strengthen the community.
- Impart knowledge of EC tools, best practices, methods, outputs.

*Supported by:
Megan Carter, Samantha Sands,
Melissa Cragin*

Specific Activity Examples

- Data Fairs
- Data Help Desk at science meetings
- Data Challenges
- Training on demand, workshops
 - (GO) FAIR awareness, specific topics

Planned Collaborations



Data FAIRs at AGU and Beyond

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: Ask Questions, View Demos & Workshops, Town Halls, and more.

Learn more: <https://copdess.org/data-fairs/>



The Data FAIR at AGU is a program of ESIP, EarthCube, and AGU, as well as their partners. Representatives from 30+ organizations participated in Data Help Desks in 2019.

ESIP LAB

MISSION & VISION



To support the development of innovative Earth science technologies through funding, strategic outreach, and community input.



To be a multiplier and advocate for individuals and ideas that advance our knowledge of Earth-system science.

ESIPFED.ORG/LAB

ESIP Lab

Supporting the Earth science community in building innovative, applied technologies through funding and community input.

FUNDING OPPORTUNITIES

USER STORIES

125,000

ANNUAL SMALL GRANT DOLLARS TO THE COMMUNITY

120

ESIP PARTNER ORGANIZATIONS



WATCH A SHORT VIDEO TO LEARN MORE ABOUT THE ESIP LAB

SMALL GRANTS AND GOOGLE SUMMER OF CODE

GOOGLE SUMMER OF CODE

- [OrcaCNN: Detecting and Classifying Killer Whales from Acoustic Data](#)
- [A Next Generation GUI for Visualizing Big Gridded Data in Python](#)

SPRING 2019 SMALL GRANTS

Community Open Data and
Experimental Mesonet (CODE-M)

A cloud-based community tool for
ambient seismic noise analysis and
monitoring with Julia

Scalable Serverless Workflows for
Processing Cubesat Imagery to
Identify Flowering Hotspots in Sub
Alpine Meadows

Subaqueous Landslide
Morphometrics Database and
Website for Global Outreach and
Data Collection

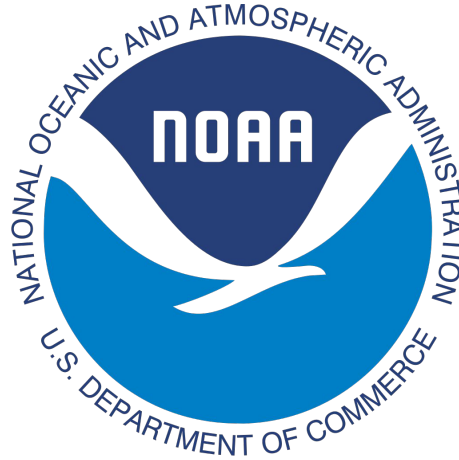
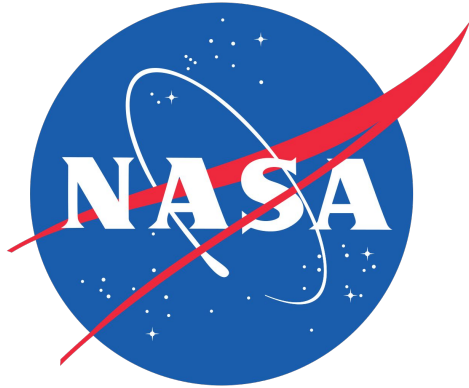
Supporting Partner Update



EARTH CUBE
TRANSFORMING GEOSCIENCES RESEARCH

ESIP is exploring being written into other proposals as part of our business model. SDSC is 1st partner to do that.

Sponsor Presentations



Community Partner Presentations



2020: Looking ahead

Theme:

Putting Data to Work

Wrapping up 2015-2020
Strategic Plan & starting to
vision for 2020-2025



Putting Data to Work

2020 Election Results

- Tamara Ledley, President
- Sudhir Shrestha, Vice President
- Denise Hills, Governance
- Rebecca Koskela, Finance
- Amber Budden, Data Stewardship
- Mike Daniels, Partnership
- Becky Reid, Education
- Dave Blodgett, IT&I
- Lewis McGibbney, Semantic Tech
- Nancy Hoebelheinrich- Board, At-Large

The background of the entire graphic is a scenic photograph of Burlington, Vermont. It shows a view of the city from across Lake Champlain, with the dense green forest of the city and the spires of the Church of St. Paul visible in the middle ground. In the background, the rolling hills of the Green Mountains are visible under a clear blue sky with a few wispy clouds. The water in the foreground is a deep blue with gentle ripples.

Save the Date!

**2020
ESIP SUMMER
MEETING**

Burlington, VT

July 14-17, 2020

Winter 2021



Post-Meeting feedback in 2017 suggested we leave out of DC during Inauguration.

Options:

- Stay in DC
- Pasadena
- Santa Barbara

Engagement Opportunities



DISCOVER

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



COLLABORATE

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



INNOVATE

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



NETWORK

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

JOIN

Encourage your organization to join ESIP's 110+ member organizations. Unlock membership benefits: start new collaborations, apply for funding, and more.

What else can YOU do?

- Tell others about ESIP
- Volunteer for Leadership
- Stay vocal by sharing your expertise and questions on telecons, Slack, mailing lists, etc.

<https://www.esipfed.org/onepager>



QUESTIONS?

Karl Benedict, president@esipfed.org
Erin Robinson, erinrobinson@esipfed.org
Annie Burgess, annieburgess@esipfed.org
Megan Carter, megancarter@esipfed.org

