

Idaho EcosySTEM Convening

October 30, 2020



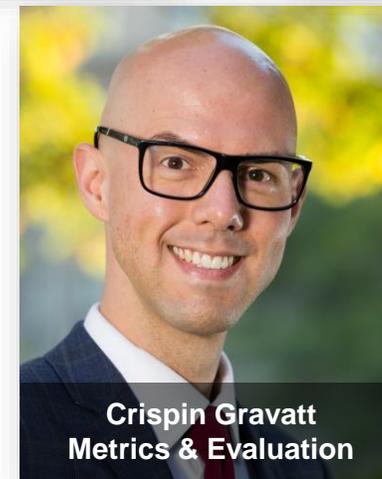
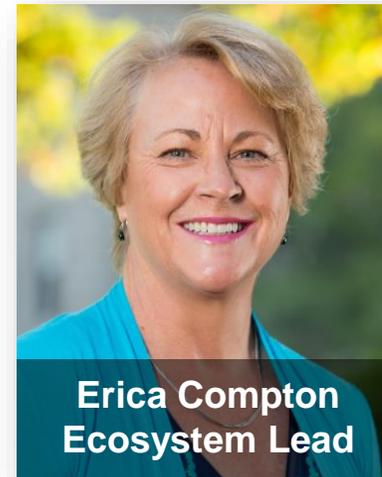
This
meeting is
being
recorded

- This convening is being recorded to provide reference data to develop the Idaho STEM Ecosystem.
- This recording will be kept on STEM AC's internal servers.
- Public chats will be copied for note-taking purposes.
- Notes and presentations will be posted to the Ecosystem website shortly after the meeting.

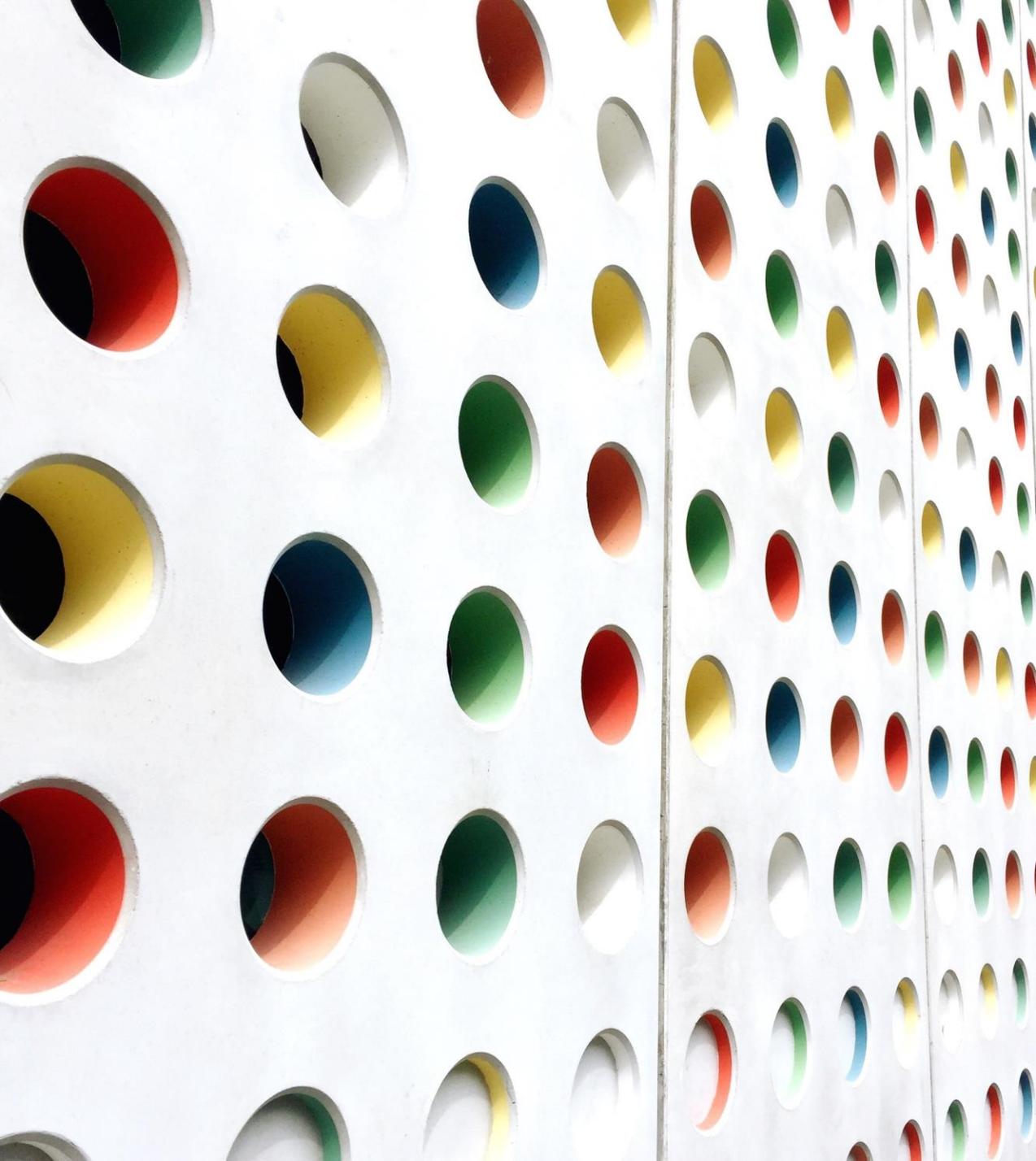


IDAHO
STEM
ACTION CENTER

STEM AC Ecosystem Support Team



A STEM ecosystem provides the structure for cross-sector partnerships to improve STEM literacy, ensuring a strong workforce and global competitiveness for all.



Basic Zoom Tips & Controls

ECOSYSTEM PLANNING
MEETINGS

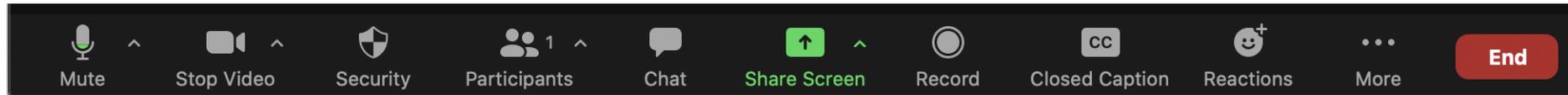


**IDAHO
STEM**
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Basic Zoom Controls



The control panel will appear at the bottom of your screen.



Mute/Unmute: This allows you to mute and unmute your microphone

Start/Stop Video: This allows you to start and stop your own video.

Participants: This opens up your participants window so you can see who is in the meeting

Chat: This opens up the chat feature. You can chat with the host, everyone, or send a private chat

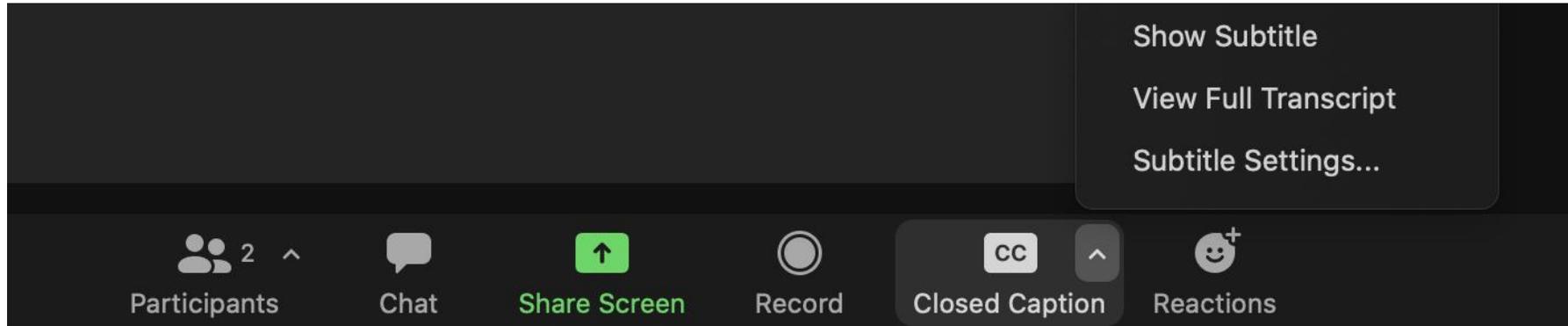
Share Screen (Enabled for Hosts Only): Click on this icon to start sharing your screen. You will be able to choose an application or a screen you would like to share.

Note: the controls will sometimes auto-hide, so you may have to 'mouse-over' the bottom of the screen

Additional Zoom Controls



Closed Captioning: To enable, click the closed captioning icon and choose “show subtitles”

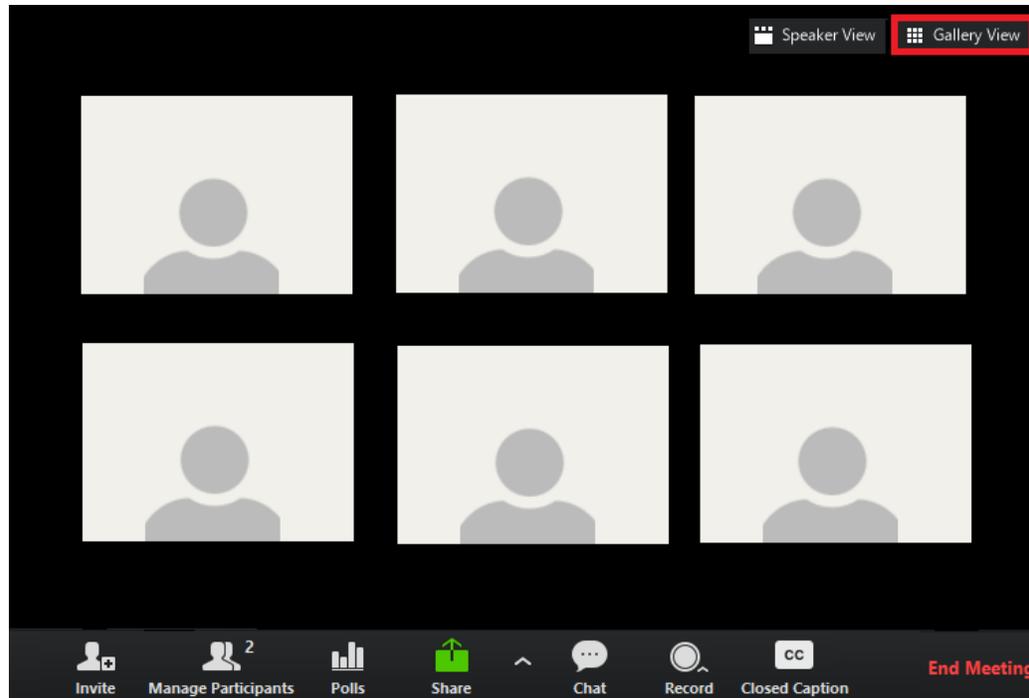


Reactions: Allows you to ‘react’ using emojis (ie thumbs up, happy face, clap). Any Reactions you choose will show up in your individual picture window. Reactions are different than the non-verbal feedback icons. See next slide for details.

Additional Chat Controls



Viewing Options: In the upper right hand corner you can change the layout based on your viewing preference.



Additional Chat Controls



Changing Your Name In Zoom:

1

After launching the Zoom meeting, click on the "Participants" icon at the bottom of the window.



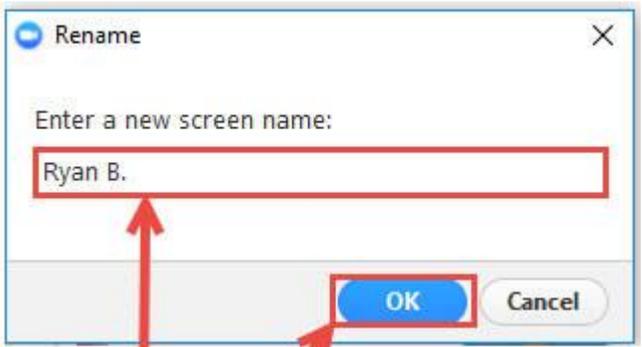
2

In the "Participants" list on the right side of the Zoom window, hover over your name and click on the "Rename" button.



3

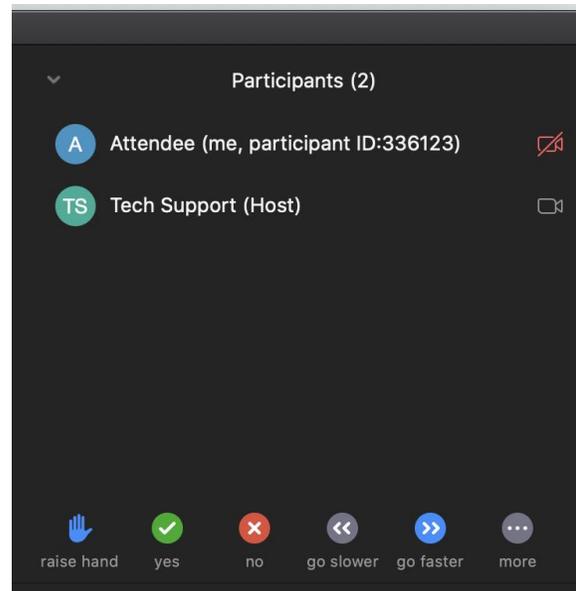
Type in the display name you'd like to appear in the meeting and click on "OK".



Zoom Nonverbal Feedback



Nonverbal Feedback: To enable, click your 'participants' button and locate the nonverbal buttons at the bottom of the breakout window.



Raise Hand: Simply click the raise hand icon and our moderators will be notified. Your hand will stay raised until your question has been addressed.

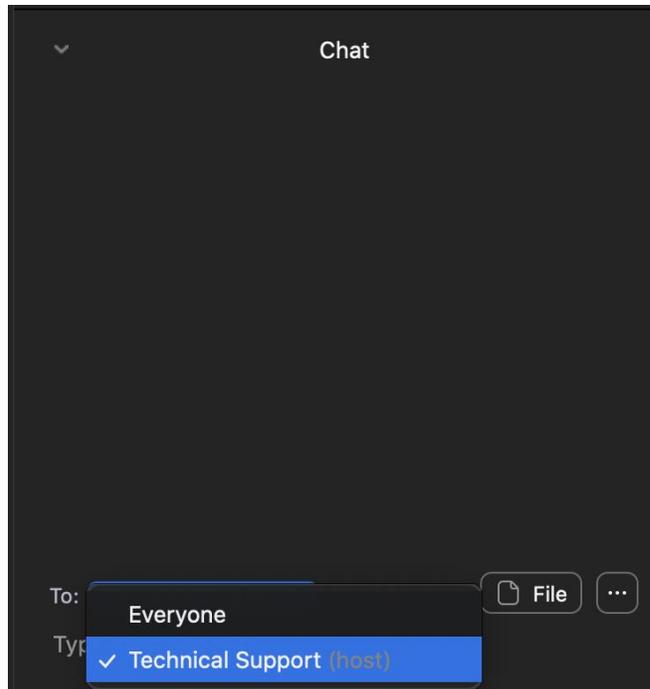
Yes/No: When asked a simply question, you can click the Yes or No icons to answer.

Go Slower/Faster: During a presentation you can ask the presenter to go faster or slower based on your experience.

Additional Chat Controls



Chat Feature: Once you opened up the chat feature, you can chat with the host, everyone, or send a private chat. See below for a screenshot example.



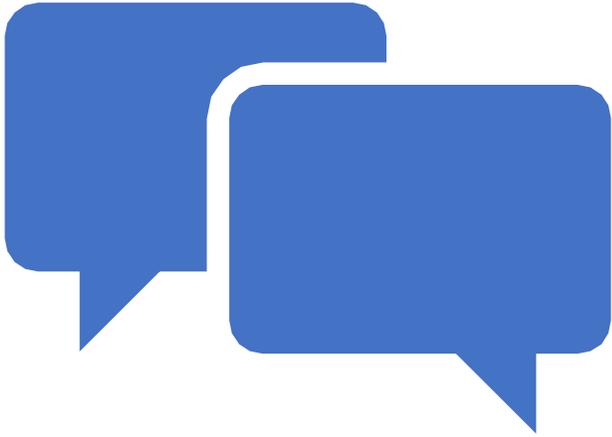
Everyone: Will broadcast your chat to everyone in the room

Host: Will only broadcast your message to the meeting host

Private: You can select an individual to chat with by selecting their name. Your chat will be sent as private and you will see a (private) next to the chat.



Onsite Technical Support During Meetings



Technical support: Support moderators will be on hand during the meetings and can be accessed through the chat feature. Look for the moderators with “Tech Support” in their name. For all additional technical support questions please call **(208) 376-0464**.

For more information regarding this event please visit the [STEM Ecosystem website](#)

Meeting Norms

- We participate as equals with shared responsibility for the outcomes
- We communicate openly, honestly, and respectfully
- We listen as allies
- We stick to the agenda
- We have no hidden disagreements or questions; if we disagree, we do so with grace and tact
- We help each other learn
- We show up on time and prepared



ICE BREAKER

Go to [Slido.com](https://www.slido.com) and enter code #63115



1) If 2020 was a Halloween costume, what would it be?

2) What is your favorite winter activity?

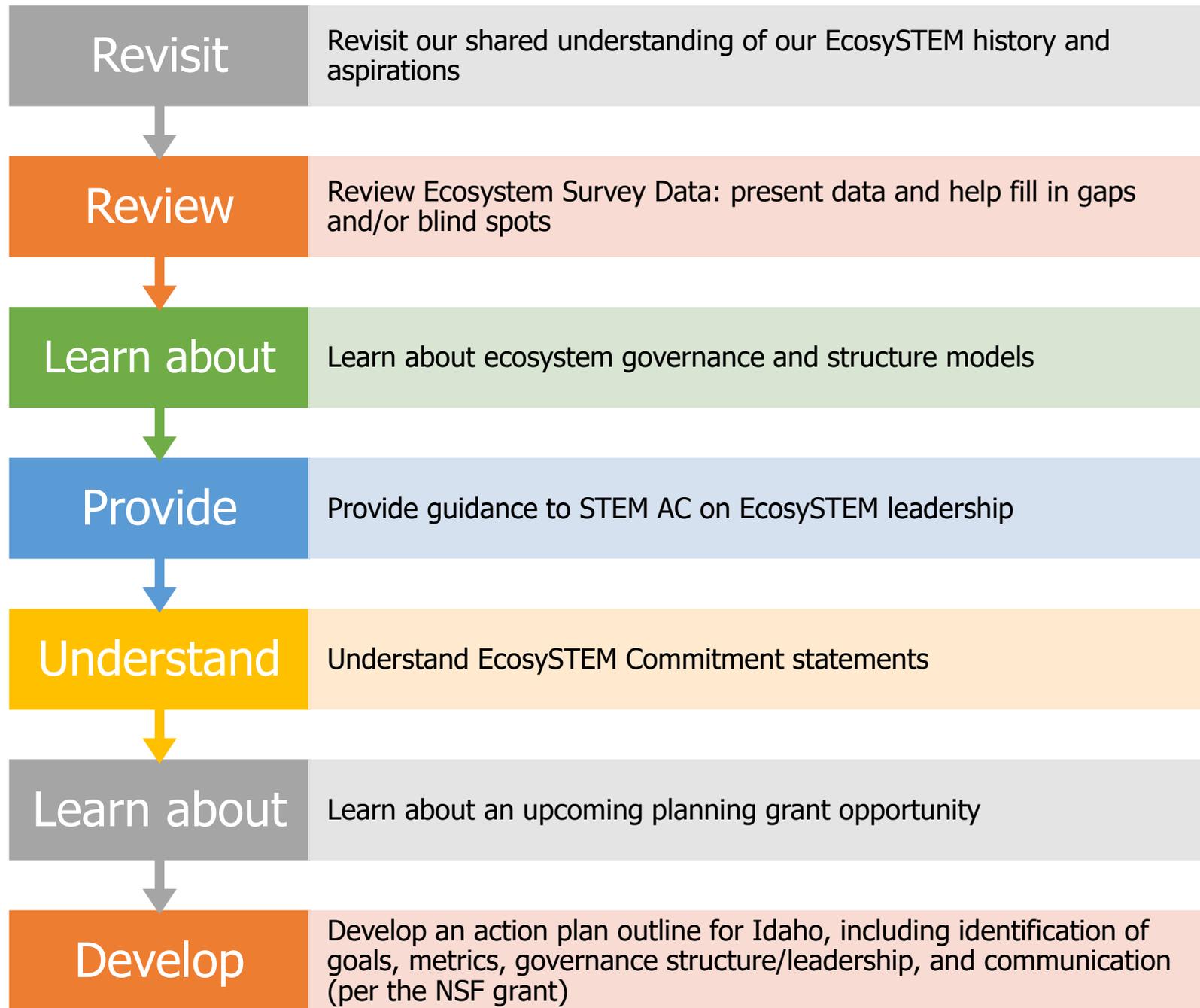


Go to [Slido.com](https://www.slido.com) and enter code #36599





Intended Outcomes



Idaho EcosySTEM Timeline & Overview



Framing the Goal of the Meeting

What you told us that you hope the Idaho STEM Ecosystem can do for you, your organization, and/or your region

- Networking with other STEM educators and professionals
- Funding for STEM opportunities
- Stronger connections between in and out of school education opportunities
- Stronger connections between PK12 education and higher education/career opportunities
- Discussion and work related to policy and governance

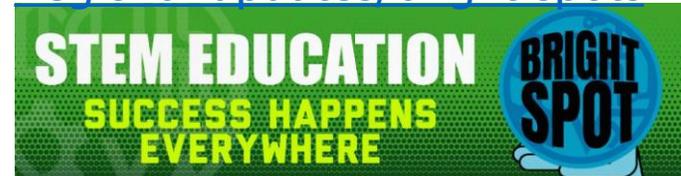


The Idaho STEM Ecosystem will foster the integration of STEM in the educational experiences of all Idahoans

Think Make Create Trailer Project



Regional updates/bright spots



Maker Fellows



This Is STEM in Spanish



Short Term Wins!!

What have we accomplished?

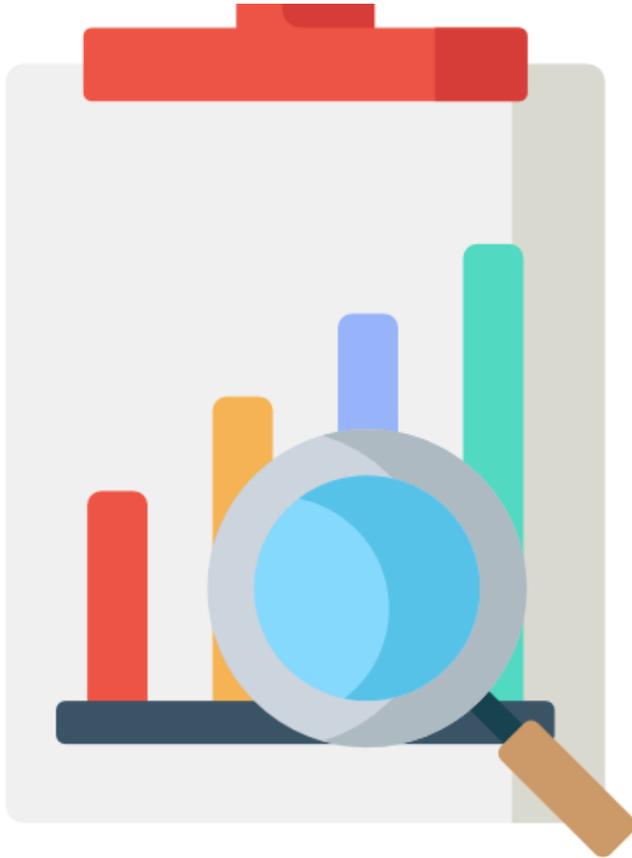
Boise Startup Week





<https://padlet.com/crispingravatt/cg4hbnu0j1h29uea>





SURVEY DATA PRESENTATION

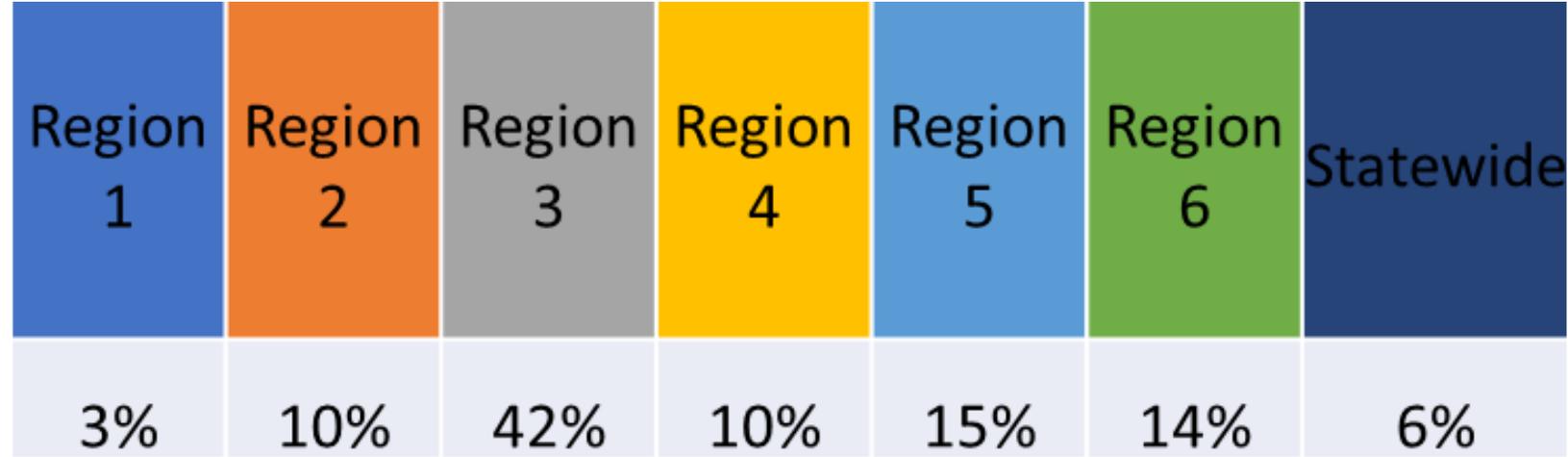
Statewide Quantitative

- Note: Next steps are focus groups & interviews – more info coming soon

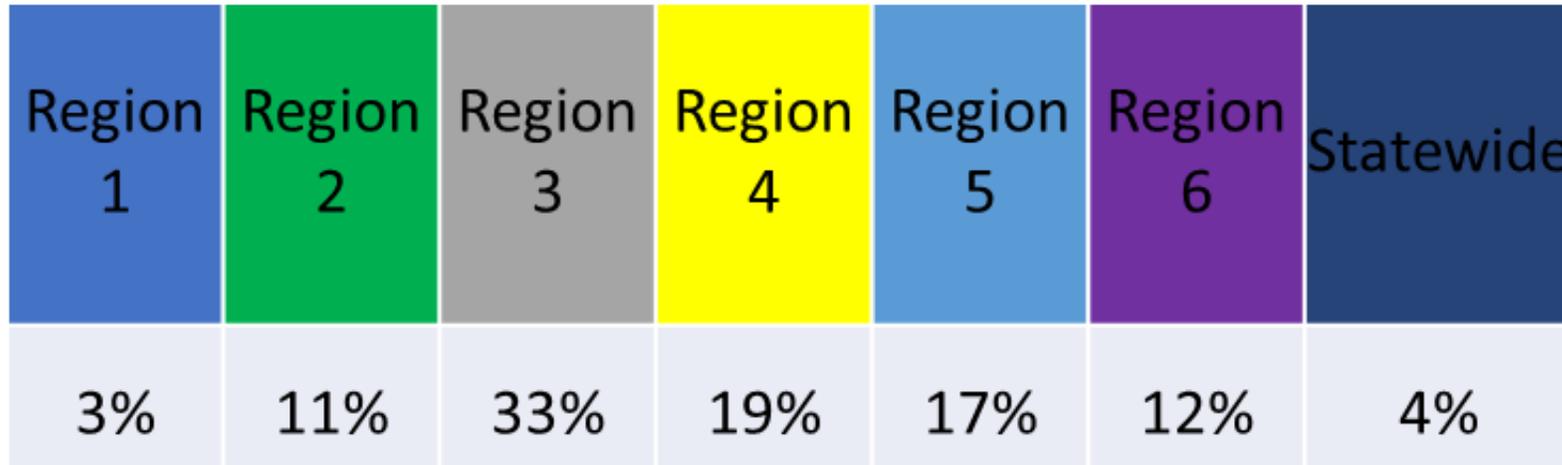
Who gave input?



September



October

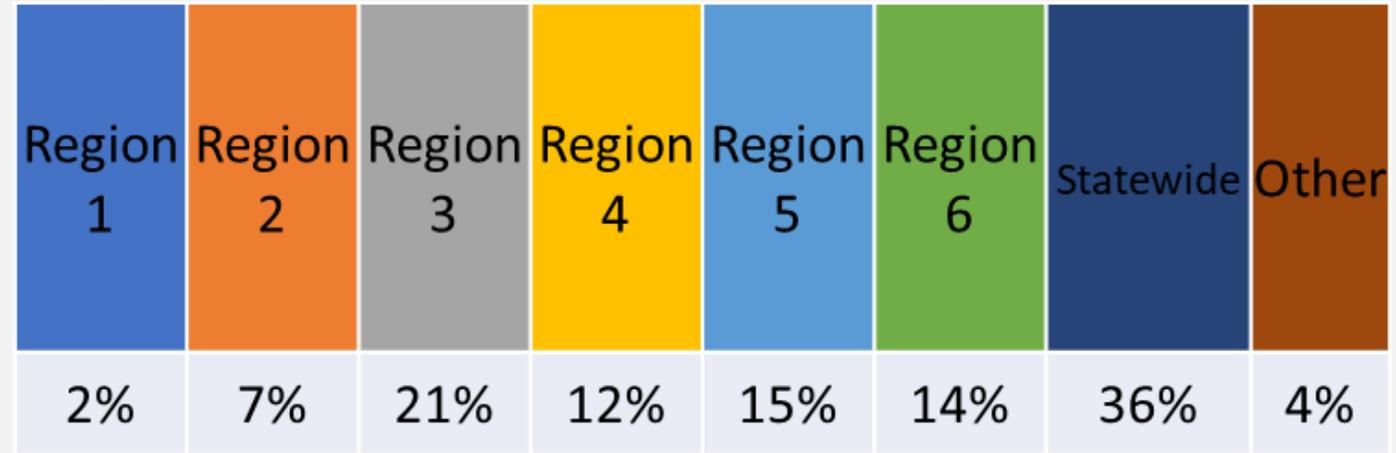


In which geographic region is your organization located?

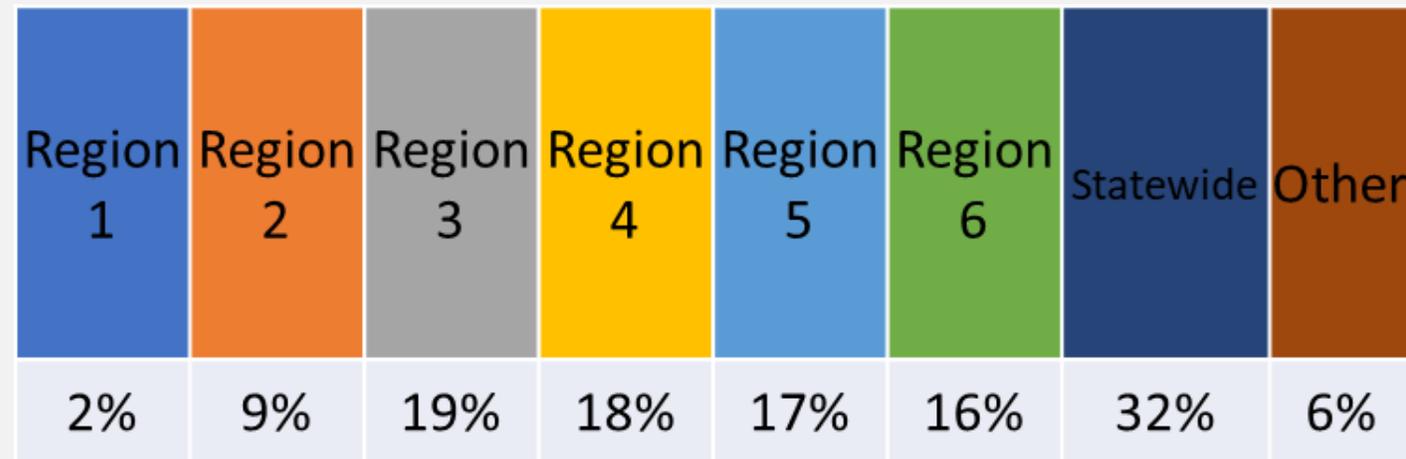
Who gave input?

Which geographic region(s) does your organization serve?

September



October

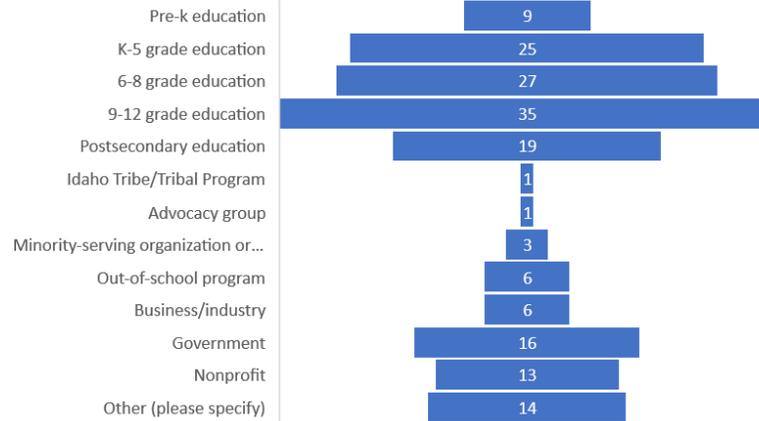


Who gave input?

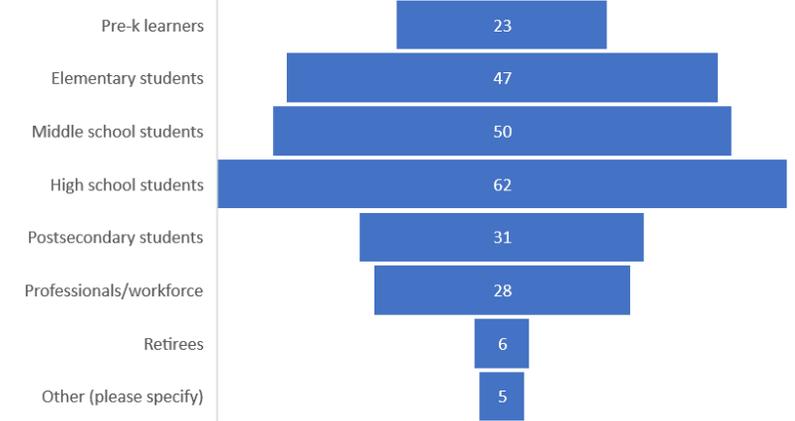
Which description best fits your organization?

September

Org Type

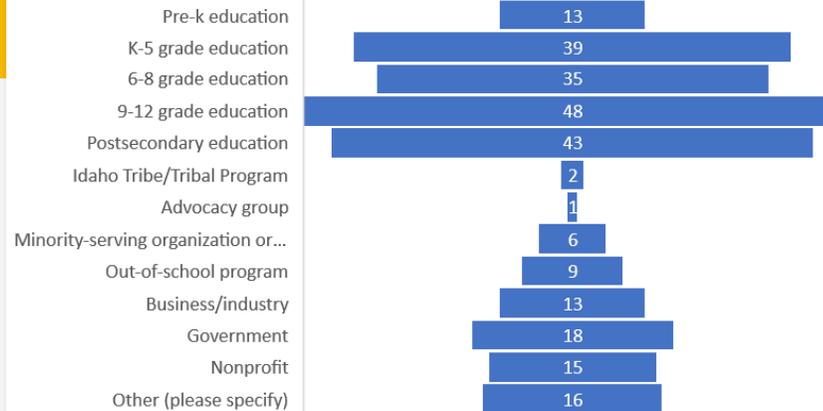


Ages

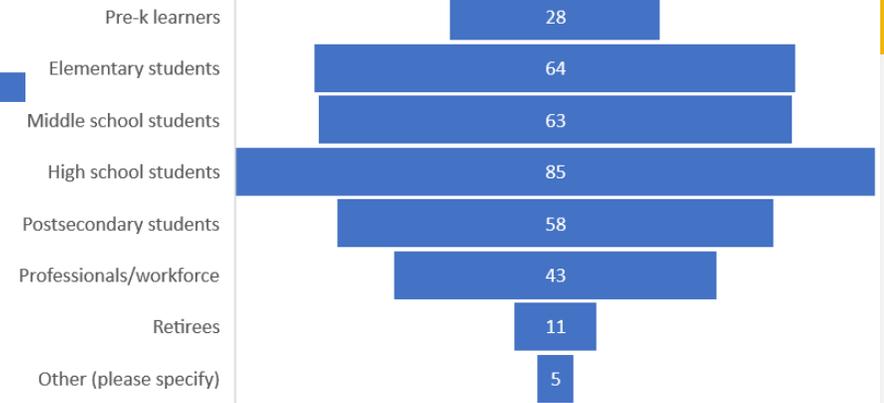


October

Org Type



Ages



Strongest STEM supporters or implementers in your community

Industry	33%
Higher ed	17%
STEM AC	8%
OoS	19%
School	14%
Other	3%
Govt	5%

School	Chamber	Chamber	Shelby P	Lewis-Cl	Lowland	Valley Boy	Wood St	Health	Bart	Matt	Avito	U
Technical	Idaho Nat	Naval Res	Bureau of	National F	Idaho Fish	Goshute	Idaho Stat	College of	Battelle E			
Idaho STE	Idaho Post	KTVB	Micron	Ads Gour	AOH	Birds of	PNM Nat	Discovery	Individual			
STEM Act	INL	BSU	Engineering	Reusum	HP Home	VR Tech	Meridian	Eastern I	ISU			
College of	STEM Act	K-12 STEM	Boise Stat	NNU	College of	TVSTEM	Discovery	Firm	Robo	local high		
STEM Act	Discovery	Project L	Micron	HP	Boise Stat	Boise Stat	Neusum	Zool	Boise	local high		
Micron	Boise Sch	Boise Wal	Boise Fish	Discovery	SUEZ	Boise Uni	Boise Stat	PCS Adv	Warren			
Idaho Tech	PRST	Rob	Idaho STE	RECEP	Idaho Stat	Associa	ACM Spe	IEEE Inst	Mary	local em		
Micron P	Discovery	Reusum	STEM AC	Women In	Idaho Out	INL	Boise Stat	-	College of	Engineer		
Idaho STE	PRST	Rob	City-run	State-run	Idaho Post	Boise Stat	College of	Western	Idaho			
U/Ebene	Herrest Co	Cliff Bar	MarlCour	CSI Course	CSI Comm	STEM	First Feste					
Idaho Nat	Idaho Stat	College of	BYU Idaho	On Semis	Mash Cou	Premier Tr	Idaho Techn	Technology	Council			
HP	IBE	Micron	Local Scho	Private Sch	Charter / P	Parents	Teachers	Principals				
Idaho Fall	University	Glanbia	Sukenhof	St. Luke's	Amalgam	Amalgam	ated Sugar					
Grangeville	Grangeville	Cleanwater	Cleanwater	Elk City Sch	Kids Klub	Grangeville	Centennial	Library				
Micron	BSU	DCI	STEM AC	Our local s	Idaho Af	HP and soft	ware engineer	s (Hour of Code)				
Idaho Stat	On Semis	Idaho Nat	Smplot	Federal Bu	Idaho Post	Idaho Acceler	ator Center					
INL	Idaho Fall	College of	Ruor	Idaho Museum	Voaloo	Nix	Idaho Fall	Power				
Idaho Stat	Idaho Nat	Bayer	On Semis	First Robo	SE Idaho	Local School	Districts					
Micron	Gowen Pl	Watershe	Boise Sp	BSU - Ida	Cap Ed	Math	Sciences					
House of	ECCCO	HDR	Gambel	Ricklize	M Custom	rs	Quintex	Building				
Boise Stat	University	SWIMA	NITE	SDDC	TC	Trailhead						
University	Hecla	Idaho For	Communi	Guma Col	Alak	Work	Forge Training					
College of	Idaho Nat	Economic	Museum o	Department	College of	Science and	Engineering at	ISU				
STEM AC	Workforce	Area Scho	Boise Stat	Idaho Des	College of	Western	Idaho					
Idaho STE	William A	The Land	Orsis	Chia	Idaho Nat	Flour	Idaho					
Boise Stat	STEM	NSTA	Idaho Reg	Innovat	Gizmo	lat	NIQ					
Calawell C	House of	CWI	TVCC	Micron	HP							
ON Semis	Idaho Stat	Idaho Stat	Idaho Cem	School Dis	INEL							
CTE	Stem Act	SDE	Idaho Leg	FETA	ISAS							
ISU STEM	Museum o	Firm	Robo	Beneig	STE	Super STE	ISTEM					
School Dis	Idaho Stat	Idaho Stat	Idaho Stat	ON Semis	Portneuf	Medical Center	(STEM advoca					
Discovery	Micron	To	INL	HP	STEM Act	Sapiene	Instruments					
Public Lib	School Lib	Idaho Out	Idaho STEI	Idaho Stat	Idaho Stat	Idaho Stat	Idaho Stat					
High School	Industry P	Local Bus	Other coll	Former	Students							
Idaho Stat	ON Semis	School Dis	4-H	INL								
STEM Act	On Semis	ESTEC	College of	INL								
ON Semis	Smplot	Idaho Stat	INL	I've also	seen some	credit unions	sponsor	(Idaho Central?)				
University	North Ida	Silver Lake	Idaho Nat	Jump	Center							
PRST	Nawk	Road	Idaho STEI	North Ida	KTEC							
College of	Biology De	Physical Sc	Mash	Eng	local High	schools						
Stem	IS	Gem	Comm	Idaho B	ing	University	NASA Ames	Center				
Boise Stat	Boise Stat	BSU	Ido Cr	BSU	CS O	National	Science Foundation	for grant	funding	publications		
Univ of Id	Gimo	CD	NI	STEM C	Open	idea	NIC					
Micron	HP	Intak	Stanay	Power	Engineers							
Science de	math	dept	vocational	scholarsh	robotics	club						
Schweitzer	Paulsen	E	Vista	Out	St. Joseph	Regional	Medical Center					
Micron	STEM AC	INL	Boise Stat	Trailhead								
Micron	STEM AC	INL	Boise Stat	Trailhead								
Boise Stat	INL	Micron	Idaho Post	U.S. Army								
Informal o	formal ed	business o	communi	University								
INL	STEM	Museum o	College of	Compass	White	Pink	Charter	School				
INL	Rickly	M	College of	Workforce	YMCA							
Idaho Tech	STEM Act	Sage Inter	Boise	schools								
INL	Museum o	STEM Act	CEI									
Math & Co	Engineer	in	Biology De	Chemistry	Dept							
CSI	INBRE	Chobani	Cliff Bar									
Library	Lemhi's	Al Youth	Eng	Computer	Zen (business)							
College of	Herrest Co	Twin Falls	Gini	Scouts								
Idaho STE	Micron	Pa	Laura	Max	HP							
Idaho Stat	Idaho War	Office of	Idaho	Career	and	Technical	Education					
STEM AC	IDAHO DIC	KEYBANK	IDAHO TECHNOLOGY	COUNCIL								
Local	Scho	Local Lib	Museum	INL								
ISU	Colleg	School Dis	Chamber	STEM								
Idaho STE	Palouse St	Schweitzer	Russell	Elementary	School							
STEM Dep	STEM advi	CSI	STEM	K-12	Schools							
Boise Stat	Idaho Doc	Boise Sch	Micron									
STEM AC	DCI	IGN	Micron									

Mountain	Micron	City off M	Mountain	Home	School	District						
Lapwai	Hij	Nex	Perce	Nex	Perce	Nex	Perce	Tribe	Forestry			
Hillco	Teel	Cleanwat	Idaho STE	Neapoca	Community	Library						
ISU	Stem Act	INL	On Semis	Inductor								
ISU	Symplot	ON semis	School	district	25							
The Leads	The Tenda	A few	local	businesses								
Future	CSI Science O	Boise	State	University								
Local	Farm	INL	BYU	Idaho								
Blaine	Col	Idaho Pub	Community	Library								
Children's	CSI	Discovery	Center									
School Dis	Public Lib	Economic	Development	Organization								
INL	On Semis	Idaho State	University									
Idaho Stat	INL	ON										
ISU	INL	Pocastello	Chubbuck	SD								
STEM club	Academic	Robotics	club									
Idaho	STE	Some coll	aboratin	here	or	there	with	PCSE				
school dis	public lib	stem	related	industries								
Local	Ag	Agricultur	Program									
Micron	Boise	State	University									
STEM Act	Boise	State	University									
Burley	Pub	Cassia	County	School	District							
Salmon	P	Computer	Zen									
Mobile	Tei	CORE	curriculum	and	development							
College	he	High	School	Health	programs							
All	college	High	Schools									
ISU	High	Schools										
Idaho STE	Idaho	Career	and	Technical	Education							
Idaho	Scho	Idaho	STEM	Action	Center							
Idaho	Stat	INL										
Century	2	Library										
Stem	actio	micron										
STEM	Act	Micron										
university	crmo	saw	school	system								
Ernest	Her	Other	public	schools	in	our	region					
INL	Rob	Kwell	Automation									
Vista	Out	Schweitzer	Engineering	Laboratories								
IQH	STEM	AC										
BSU	stem	Stem	action	center								
Idaho	Nat	Stem	Action	Center								
CSI	University	of	Idaho									
Tribes	University	of	Idaho									
DOT	Foals	-	supporter									
Herrest	Center	for	Arts	&	Science							
I	coordinate	STEM	programming	with	our	students						
Idaho	National	Lab										
Idaho	State	University										
INL												
IR	Smplot	Elementary	School									
Lewiston	City	Library										
Oneda	County	Library										
Preschool	age	kids	and	Mom								
School												
Schools												
Schweitzer	engineering											
Schweitzer	Engineering	Laboratories										
SEL												
State	Department	of	Education									
STEM	Action	Center										
STEM	Action	Center										



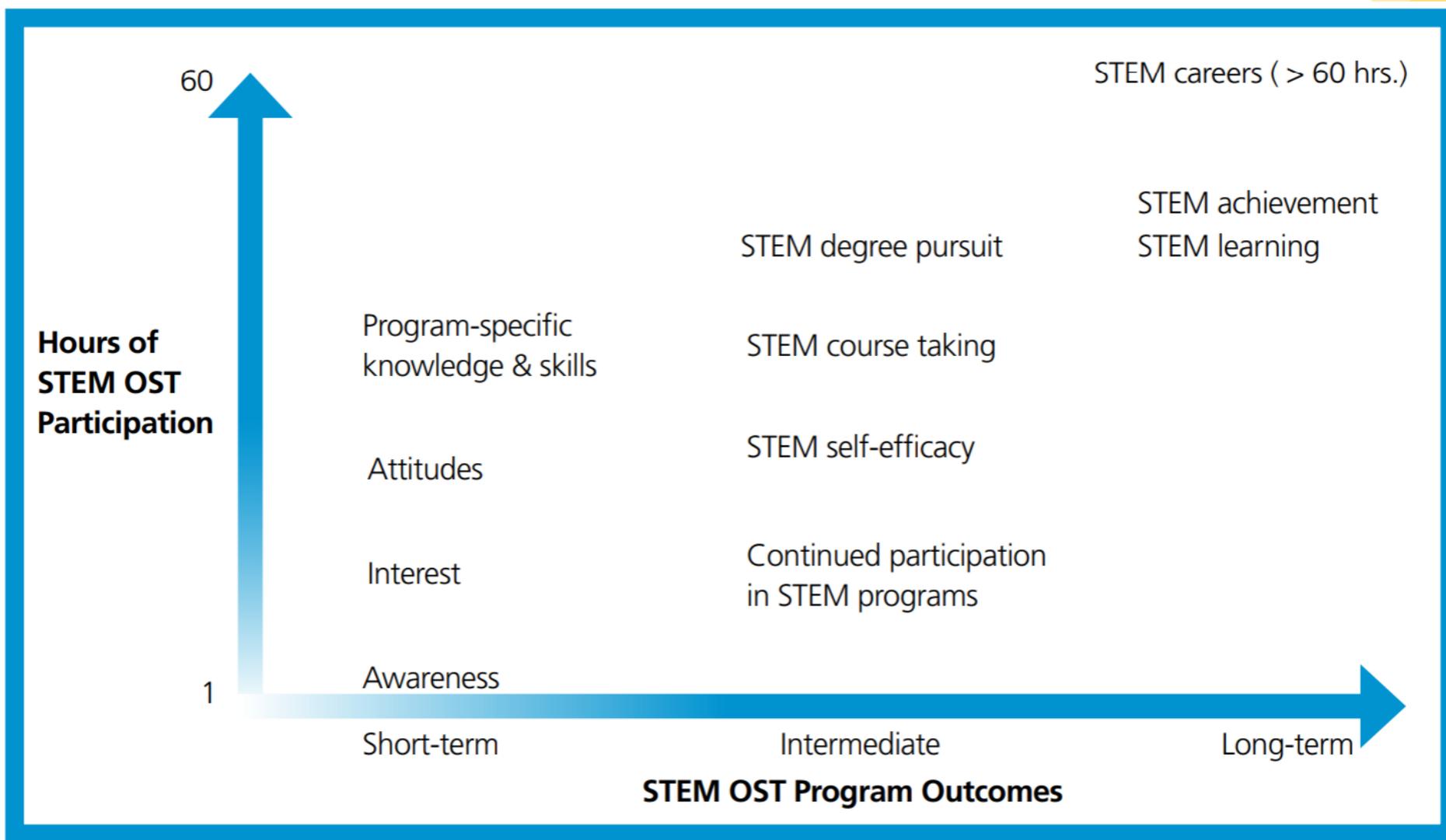


Figure 3. Relationship Between STEM OST Program Duration and Program Outcomes



My community knows what STEM <u>means</u> .	My community shows <u>interest</u> in STEM.	My community <u>values</u> STEM skills.	STEM <u>careers</u> are available in my community.	My community understands that STEM is important to its <u>long-term</u> economic health and prosperity.
3.90	3.91	4.02	4.01	3.58
78.01% (-0.84)	78.28% (-1.91)	80.40% (-1.33)	80.13% (+0.51)	71.60% (-1.80)
0.88	0.85	0.88	0.92	0.95

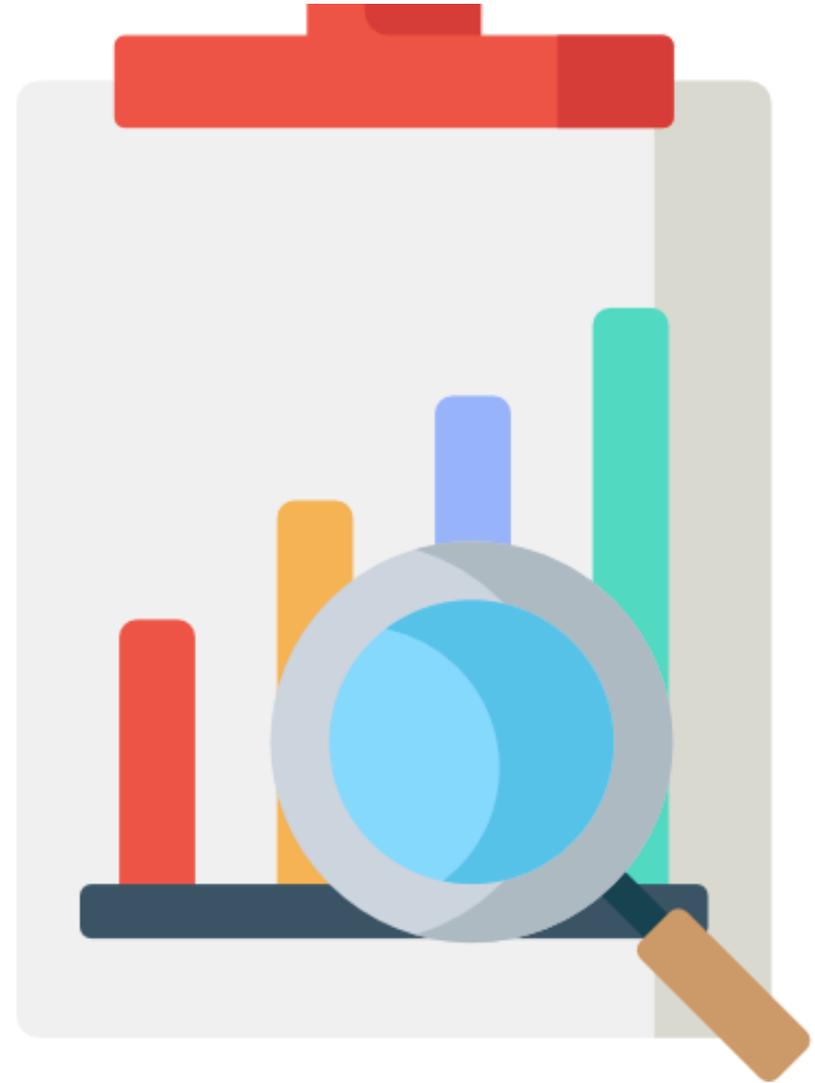


My community has available <u>infrastructure</u> to support STEM opportunities .	My community has <u>technology</u> available to support STEM opportunities.	My community has <u>funding</u> available to support STEM opportunities.	My community has <u>human power</u> available to support STEM opportunities.	My community has <u>leadership</u> available to support STEM opportunities.
3.52	3.51	3.17	3.57	3.66
70.33% (-0.25)	70.20% (-0.67)	63.36% (-1.35)	71.39% (-0.73)	73.20% (-1.36)
0.98	0.94	1.06	0.92	0.90

SURVEY DATA PRESENTATION

Regional Qualitative

-Data overview of highlights from open-ended/list responses analyzed by region (1&2; 3&4; 5&6)



Defining Community

Regions 1 & 2

- Rural
- Remote
- Agricultural
- Tribal presence
- Strong connections to land
- Mixed industry, largely featuring forestry & agriculture
- Divides

Regions 3 & 4

- Statewide/regional-big, diverse population
- Specific industry focus/gov agencies
- Local-peripheral rural communities
- Hispanic populations
- Low SES populations

Regions 5 & 6

- Rural
- Remote
- Agricultural
- Hispanic/Indigenous populations
- Socioeconomic dividers create/reinforce educational divides



Resources

Regions 1 & 2

Available

- Specific programs
- Higher education networks

Missing

- **Funding**
- Coordination; **Connection** between industry & education
- Interest & awareness, especially for families

Regions 3 & 4

Available

- **Volunteers**
- **Funding**
- Training Operations
- Venues

Missing

- Ongoing **funding**
- Staffing
- Resources
- **Leadership**
- Access & inequity
- Awareness
- Training
- Time

Regions 5 & 6

Available

- Industry **funding** support & volunteer expertise
- University student and professional **volunteers**
- Clubs/extracurriculars

Missing

- **Leadership**
- Additional human power
- **Connection** & communication strategies
- **Funding**



Partnering with Others

Regions 1 & 2

- Specific programs or events
- Shared resources
- Funding
- Limited/none

Regions 3 & 4

- Events
- Trainings
- Outreach & Collaborations
- Provide volunteers and/or mentors
- Share resources
- Provide funding

Regions 5 & 6

- Events
- Extracurriculars
- Funding
- Volunteers
- Limited/None



Achievements

Regions 1 & 2

- Specific programs
- Placemaking (i.e. makerspace)

Regions 3 & 4

- Connect students to learning outside the “classroom”
- Offer trainings
- Host events
- Increase interest in STEM
- Received grants/funding
- Now offer CS
- Awarding more STEM/CS degrees
- Increase outreach efforts

Regions 5 & 6

- Very successful events
- Establishing new competition teams
- ISU invests in STEM



Measures of Success

Regions 1 & 2

- Headcount
- Surveys
- Fluency in program materials

Regions 3 & 4

- Surveys
- Participation counts
- Measure/track GO ON rates
- Number of partnerships
- Funding received
- Outreach activities
- Resources provided

Regions 5 & 6

- Headcount/Enrollment
- Surveys
- Certification/GO ON rate/other standardized metrics



Regulatory/Policy Needs

Regions 1 & 2

Organization

- Guidance from policymakers
- Unknown

Community

- Industry guidance
- Internet access

Regions 3 & 4

Organization

- Unknown
- State rules/legislation
- School policies
- Liability
- Accreditation

Community

- Industry guidance
- Internet access

Regions 5 & 6

Organization

- Guidance from policymakers
- Unknown

Community

- Industry guidance
- Internet access



Barriers to Success

Regions 1 & 2

- Funding
- Cultural barriers
- Lack of devices/tech support

Regions 3 & 4

- Lack of funding
- Lack of equitable access
- COVID-19
- Lack of awareness/outreach needed
- Lack of time
- Policies

Regions 5 & 6

- Barriers to participation (transportation, language, registration, fees, etc.)
- Cultural attitudes toward STEM
- Geography



Equity Approaches & Needs

Regions 1 & 2

Approach Taken

- Target demographics
- Reduce barriers to entry (free to participate, hotspots, etc.)

Supports Needed

- Funding
- Communication

Regions 3 & 4

Approach Taken

- Programs target URPs
- Programs open to all/inclusive
- Targeted outreach to URPs
- Partnerships
- None/unknown
- Use data to make decisions
- Targeted funding
- Diversity

Supports Needed

- Funding
- Training
- Diversity
- Support
- Unsure/unknown

Regions 5 & 6

Approach Taken

- Free/reduced cost programming
- Partnerships
- Population is largely underrepresented

Supports Needed

- Funding
- Communication





Ideas for Feedback

From your input at the
September meetings and
educator listening sessions

Would you participate in regional meetings related to STEM education, workforce, and other STEM topics in your region?

STEM AC may be able to support regional efforts to connect partners in education, industry, government, out-of-school, and other organizations and individuals for conversations about STEM education, economy, and workforce development.



Educator Feedback

- Travel is a concern
- Interest in getting new ideas/resources for curriculum, guest speakers, etc
- Would need to be focused- specific STEM topics?
- Ensure primary education is represented



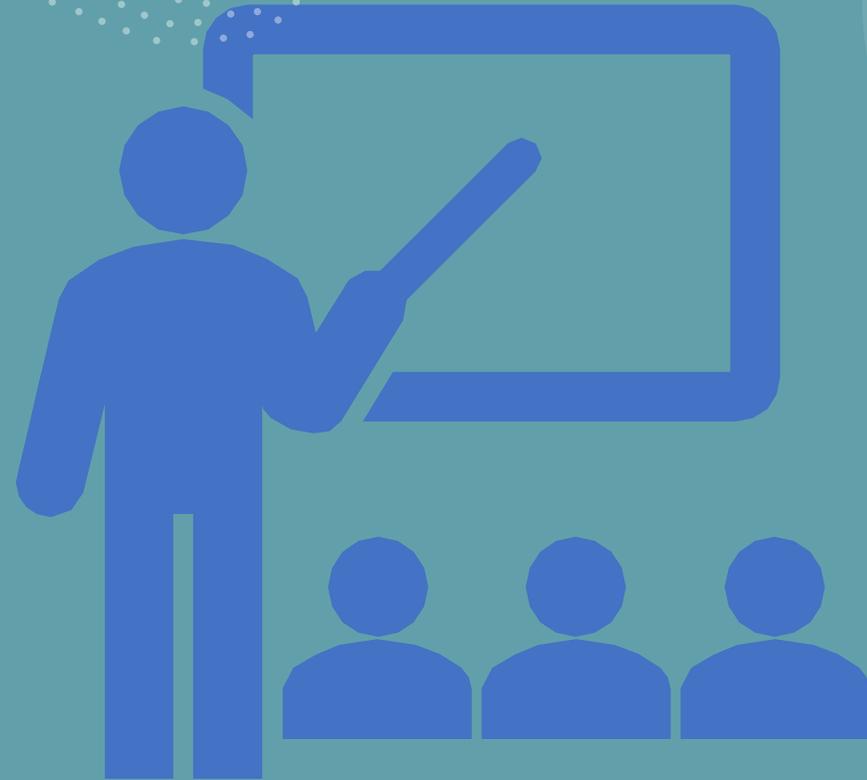
Would you utilize a directory of STEM organizations in the state of Idaho?

STEM AC may be able to create and maintain a directory of organizations and individuals dedicated to supporting STEM education in Idaho. Directory may be print or virtual, and may include primary contact names, emails, phone numbers, organization mission, and other details as available.



Educator Feedback

- Yes, especially for educators outside of Treasure Valley
- Should be online and easy to use
- List what resources could offer (field trips, mentors, kits, etc)



Should we invite parents and/or student organizations to be a part of the decision making and strategic planning groups for the Idaho STEM Ecosystem initiative?

What are the best ways they could be involved?



Other Educator Feedback

- Need more resources and focus on early childhood and primary education
- Teaching is more time-consuming due to COVID-19 complications
- Difficulties with COVID-19 and shared classroom materials
- Should try to connect STEM and literacy
- Need for more buy-in with administrators; data i.e. student achievement
- Direct email is the best way to communicate (not through district)

Other Ideas from September Regional Meetings

- Need more rural data: awareness, knowledge, resources, programs, etc.
- Need to include resource management agencies/organizations (F&G, USFS, BLM, etc.)
- Should include indigenous ways of knowing as related to STEM
- Consider hosting an ecosystem-wide equity training
- Regional “techies” to support families
- Regular networking opportunities



STEM AC's EcosySTEM Commitment:

“Idaho STEM Action Center commits to serving as the backbone organization of the Idaho STEM EcosySTEM and through this work will bring together partners from across the state to work towards an equitable STEM education plan for PreK-20.”



EcosySTEM Commitments

Commitments are specific and measurable actions taken by community partners in support of achieving the EcosySTEM aspiration. Commitments can be large or small and do not necessarily require large investments or funding. They should represent new work or be additive to existing work, such as expanding a program to a new audience or significantly growing the reach of a program.



For our EcosySTEM, a commitment may fall into one or more of these categories:

Education

Partnerships

Equity

EcosySTEM
Infrastructure



Why EcosySTEM Commitments Matter

Help demonstrate our collective work for the legislative session, for grants, and to potential donors.

Please consider submitting your organizations commitment by Dec. 20th to Erica.Compton@STEM.Idaho.gov

Commitments will be made publicly available in January 2021 on the EcosySTEM website.



EcosySTEM Commitment Categories & Examples



Education - How will your organization support the EcosySTEM's aspiration?

- Ex 1: We will host/sponsor three camps on coding for a total of 100 girls during the summer of 2021.
- Ex 2: We will provide a total of 100 hours for employees to volunteer as mentors or guest speakers in local schools.
- Ex 3: We will increase the number of undeserved students in STEM education by 15% in 2021.



EcosySTEM Commitment Categories & Examples

Partnerships - How will your organization develop new, or enhance existing, collaborative opportunities in your community, region, or the state?

Ex 1: We will develop a partnership with a local STEM business to provide classroom mentors for 10 elementary educators.

Ex 2: We will continue to partner with five school districts to implement STEM specific initiatives, impacting over 3000 elementary students by summer 2021.





EcosySTEM Commitment Categories & Examples

Equity - How will your organization work to close the gaps that exist in STEM education and workforce development?

Ex 1: We will increase the number of undeserved students in STEM education by 15% in 2021.

Ex 2: We will offer community engagement activities for families in three rural communities in spring of 2021 that will impact 95 elementary students.

EcosySTEM Commitment Categories & Examples

EcosySTEM Infrastructure - How will your organization support the governing structure development of the Idaho STEM EcosySTEM?

Ex 1: A representative from our organization will serve on the EcosySTEM leadership board for one year.

Ex 2: We will host an EcosySTEM convening in spring 2021.



Please consider sending us your organization's EcosySTEM commitment statement by Dec 20, 2020

Statement can be sent to Erica.Compton@STEM.Idaho.gov



Break



See you in 5 minutes!

Guiding Aspirational Statement from January Convening

- *Original statement drafted at January Convening:*
The Idaho STEM Ecosystem will foster the integration of STEM in the educational experiences of all Idahoans, leading to the creation of problem-solvers and critical thinkers who will sustain and lead the Idaho economy of the future.
- *Updated with your feedback from September:*
The Idaho EcosySTEM fosters the integration of STEM experiences for Idahoans, creating problem-solvers and critical thinkers who will sustain and lead our economy.



Strategic Priorities and the Formation of Working Groups



1

Educator Preparation, Training & Support –

Focusing on finding new and better ways to prepare and support PreK-20 educators in STEM education. Building a database of available professional development opportunities for formal and informal educators in Idaho and working on developing materials to showcase the value of implementing STEM education in all disciplines.

2

Career Pathways & Exposure –

Focusing on further developing clear STEM career pathways for Idaho's youth. Building a database of resources to broaden awareness and assist in career pathways and exposure. The intent is to share the database with the larger asset mapping project.

3

Outreach & Communications –

Focused on external communication mechanisms. Provides guidance and insight on newsletter and website as primary mechanism for communication to partners. Provided feedback bright spots to highlight members. Reviewed and provided guidance on survey data.

4

Access and Equity –

Recently completed an educator survey to develop "persona mapping" of underserved student populations. Launching survey shortly and will share out results. Our goal is to identify barriers to access and develop strategies to overcome.



Welcome TIES Leadership!!

- Ecosystem development, governance, and structure
- Leadership models, member roles and duties, etc.



Guidance: Look at the Landscape

Find your assets to build on early. Making connections that are almost there will give you something to talk about and build momentum. Also, identify the gaps that need to be addressed. This work will create longer-term changes in communities that produce thriving economies.





Guidance: Planning is Critical

Designing your bigger vision for the work is important. It might take you a while to get there, but understanding the challenges you want to solve and identifying benchmarks to get there will give you a map when things get messy.





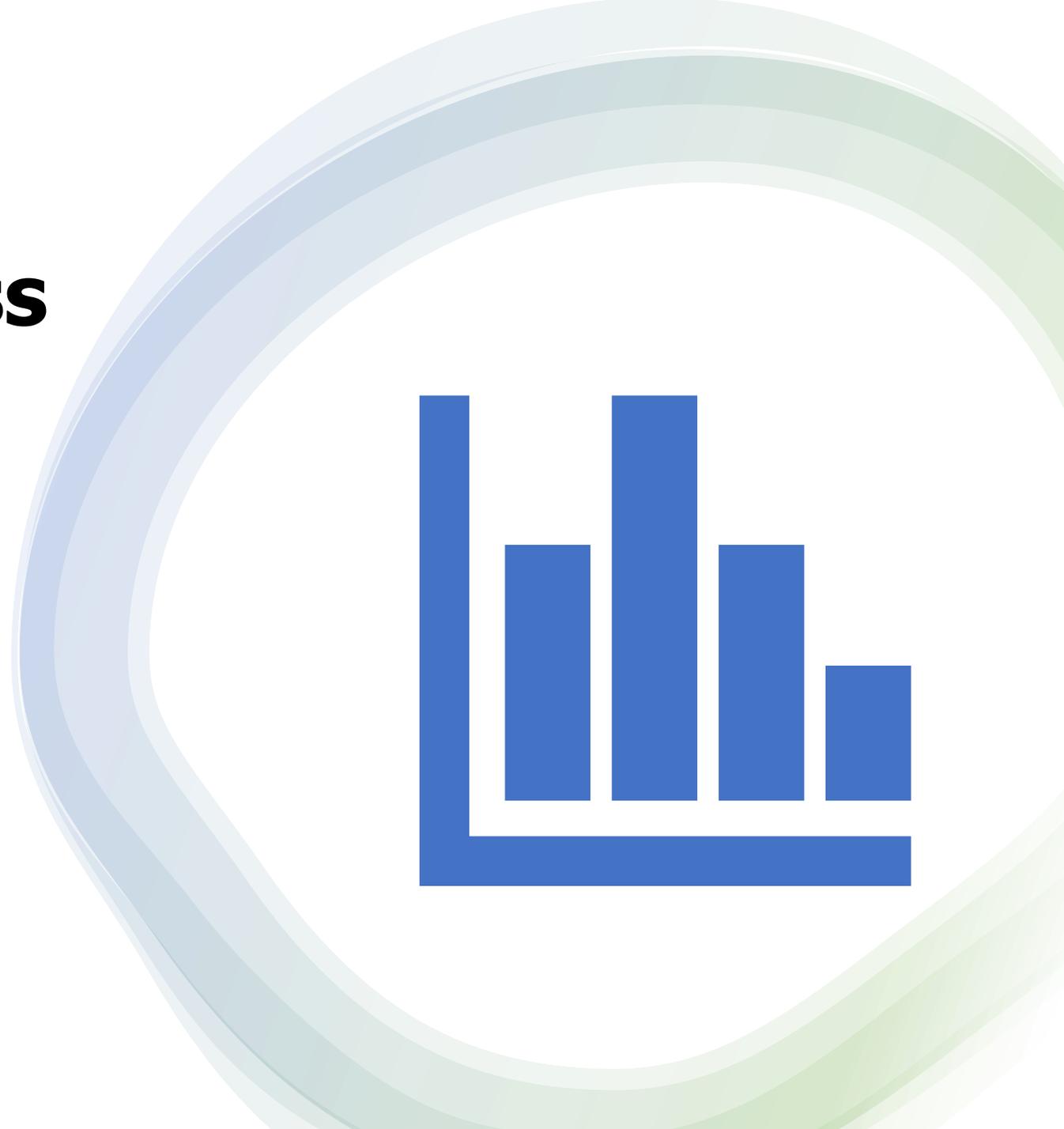
Guidance: Systems Work

It can take a while to develop new systems that people use to share information, collaborate and track progress, but it's worth the time invested. Mechanisms to create and track the work will allow you to scale.



Guidance: Track Your Progress

Measurement can be tricky, especially in the beginning when things are messy, however, it can provide a historical reference of progress when new partners and funders start to notice you. Find things you can track and review metrics consistently.





Guidance: Ask for Help and Elevate Community Leaders

Recruit experts in the community to lead work groups or act as ecosystem champions. By elevating existing talent, you 'work smarter,' making them look good, getting quality work done, and creating another arm of publicity to advertise the work.





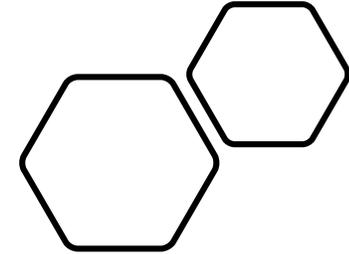
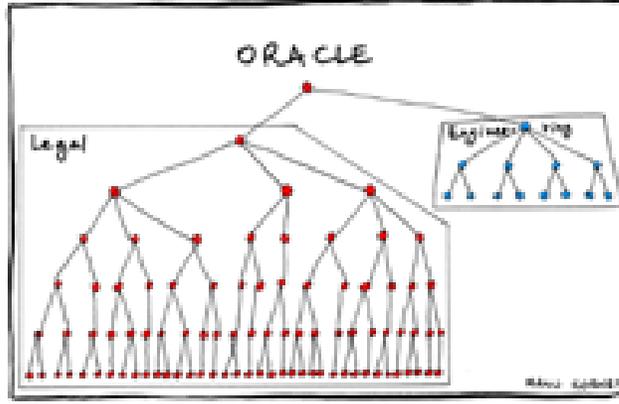
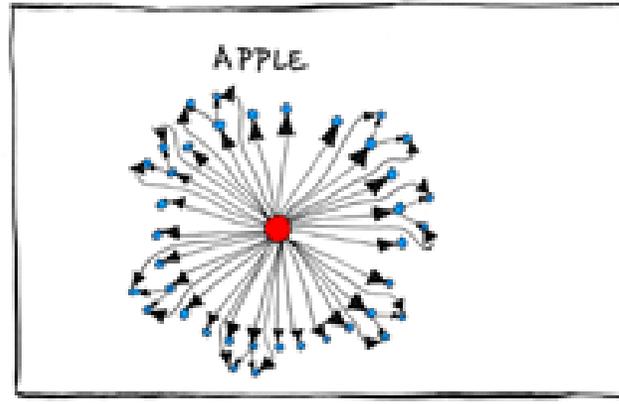
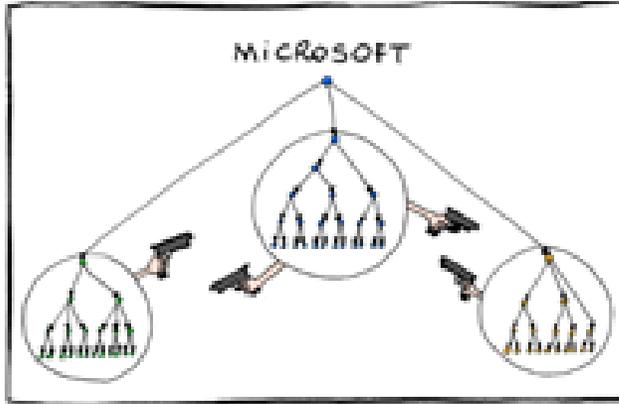
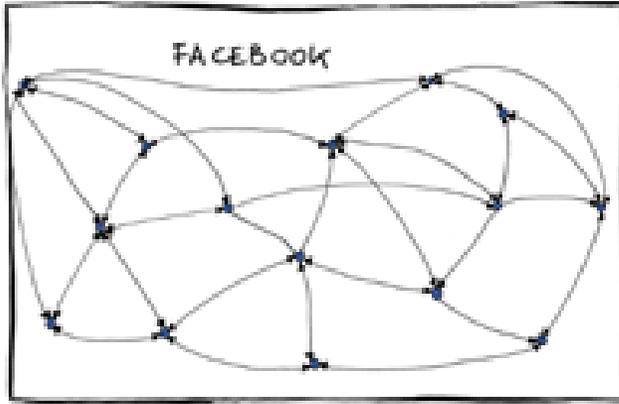
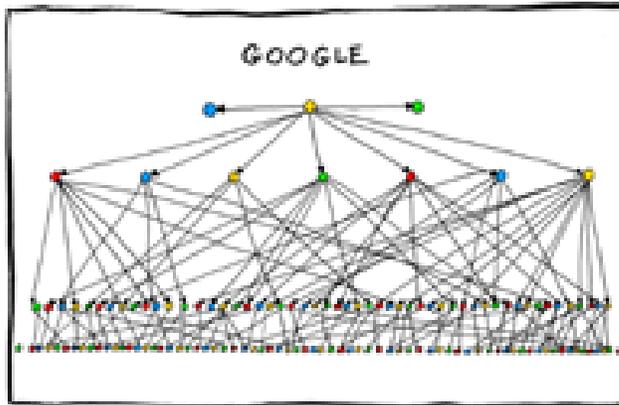
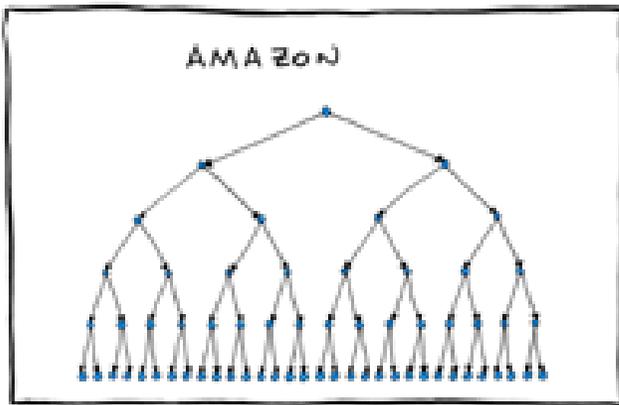
Guidance: Celebrate Success

No success is too small to get excited about. Celebrate your partners, convene and communicate often. Keep your partners coming back.



WHY GOVERNANCE MATTERS





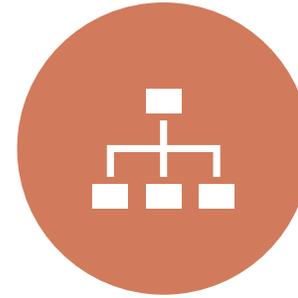
Match the structure with the culture of the community to get the work done!

Drawings available under a [Creative Commons](https://creativecommons.org/licenses/by/4.0/) license. Credit: "Manu Cornet" www.bankersworld.net.





Provides a clear understanding of the work, member roles and responsibilities



Provides transparency in the work (what is happening, how and why; who to communicate with and for what)



Enables action and impact in community, as well as press about the action



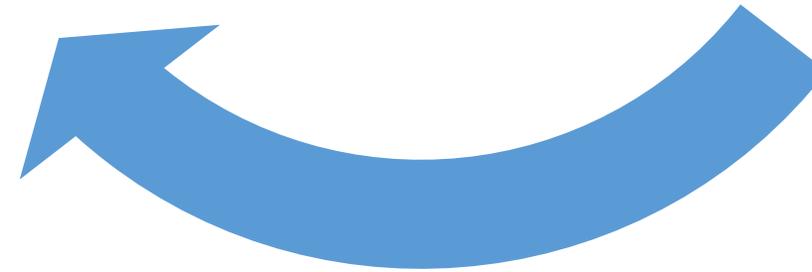
Creates grounding for innovation, sustainability and funding



**SURVEY
FINDINGS
TO INFORM
STRUCTURE**

**Tangible
stats from
survey?**

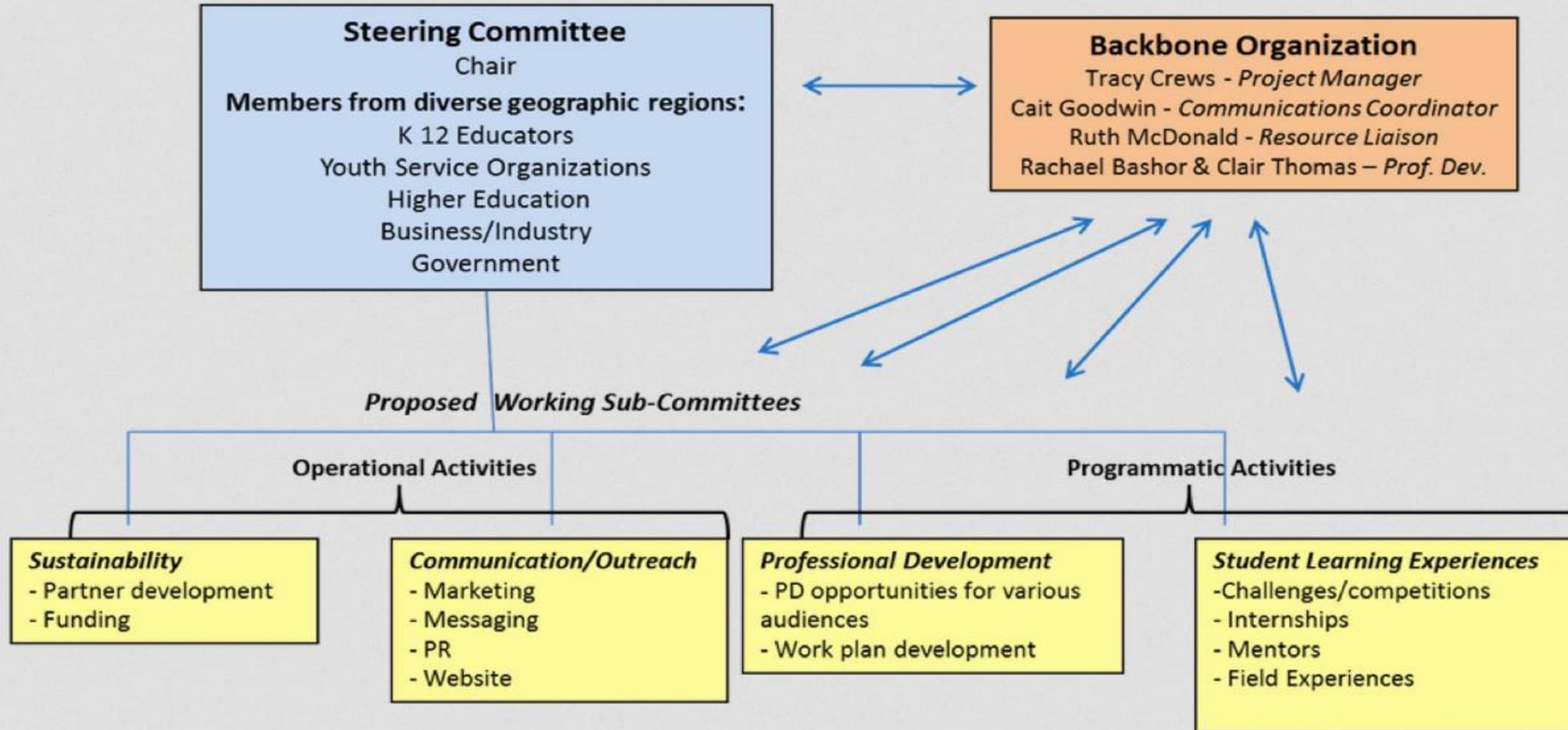
**Networking
is critical to
Ecosystem
members**



OTHER STATEWIDE MODELS



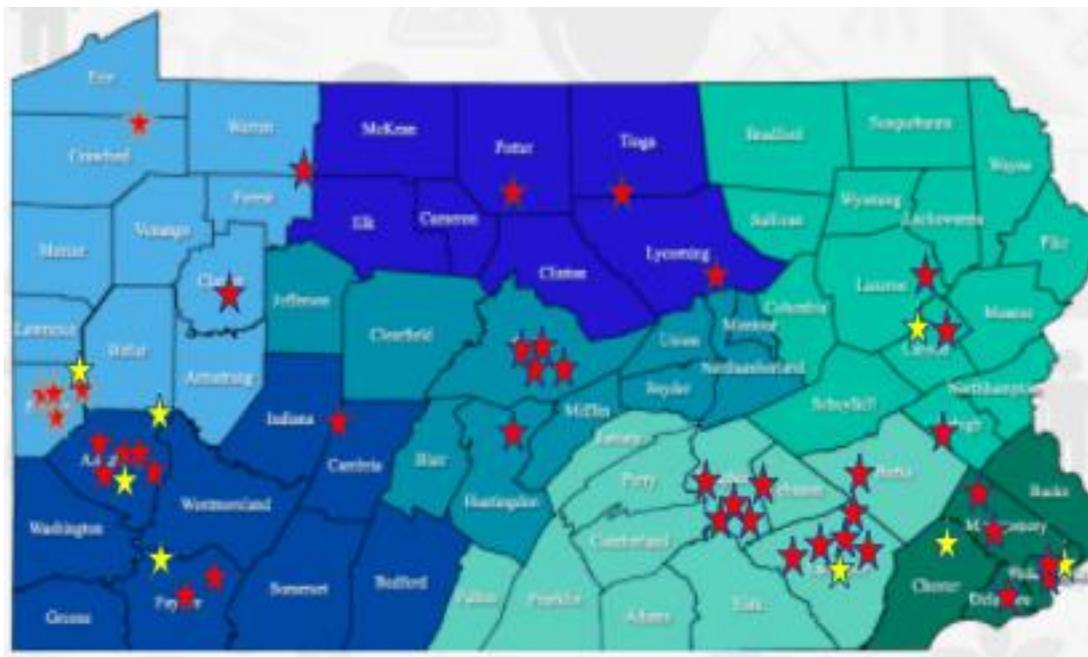
Oregon Coast Regional STEM Hub Structure



OREGON'S STATEWIDE REGIONAL STEM HUB NETWORK

- 13 Regional STEM Hubs in Oregon organized under the Department of Education to build regional connections across K-12, families, career and technical education partners, higher education, community-based organizations, and industry
- Identify needs and assets within a regional community
- Collectively develop strategies to fill STEM Learning Gaps and create shared social and economic prosperity at the regional level
- Backbone organization provides opportunities for regional hubs to learn from each other with quarterly meetings.
- Backbone organization provides professional development to support regional leaders

PENNSYLVANIA STATEWIDE STEM ECOSYSTEM



- **Leadership Team meets every Thursday morning.**
- **A small Workgroup meets weekly, to plan the Thursday meetings and other projects.**
- **Current/immediate projects:**
 - Statewide PBS partnership
 - Data collection/needs assessment
 - Virtual conference
 - INCLUDES planning grant

• Pennsylvania has 8 “formal” and 6 informal STEM Ecosystems. Together with the PA Department of Education, we have formed the “Pennsylvania Statewide STEM Ecosystem.”

Vision: All Pennsylvanians will have access to quality STEM education and career pathways, and become tomorrow’s leaders, influencers, and problem-solvers.

• **Mission:** Through purposeful cooperation and collaboration, all Pennsylvania STEM Ecosystems will be aware of, will improve upon, and will provide equitable access to quality STEM education

STEM Ecosystems in Pennsylvania

"There are abundant opportunities available for careers in STEM fields, and we know that students interested in these fields deserve access to training programs and cooperatives that can help them develop needed skills and knowledge.

Ecosystems bring STEM education to communities across the commonwealth, providing students from all areas with the resources and tools they need to pursue an interest in science and technology." - Secretary of Education Pedro A. Rivera

Governor's Goals



SCHOOLS THAT TEACH

Provide universal access to high-quality early childhood education.



SCHOOLS THAT TEACH

Ensure graduates of Pennsylvania's high schools are career ready.



SCHOOLS THAT TEACH

Improve access, affordability, and completion in postsecondary education and training.

SCHOOLS THAT TEACH • JOBS THAT PAY • GOVERNMENT THAT WORKS

BEST PRACTICES TO CONSIDER



Other Things to Consider



Look at your Landscape – Identify assets and leaders that will help your Ecosystem build momentum. Ask for help and elevate your leaders. Work together on strategies to fill gaps and needs within the community.



Plan for the Larger Vision - Understand that both short- and long-term work might be required. Systems help you get there when the vision gets foggy.



Track your Progress – Mechanisms to track progress will allow you to understand what works, scale and attract funding and media.



Celebrate Success – No success is too small. Get excited! This is hard work and it's important all progress and partner contributions are celebrated!



morning
End of morning session
break

Reminder that we will come back together at 2pm MT/1pm PT