COLLABORATIVE SCIENCE FOR ESTUARIES

WEBINAR SERIES

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SEAS Doctoral Candidate,
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Research Assistant

Digging Deeper into User Engagement to Build Collaborative Science Capacity

National Estuarine
Research Reserve System
Science Collaborative

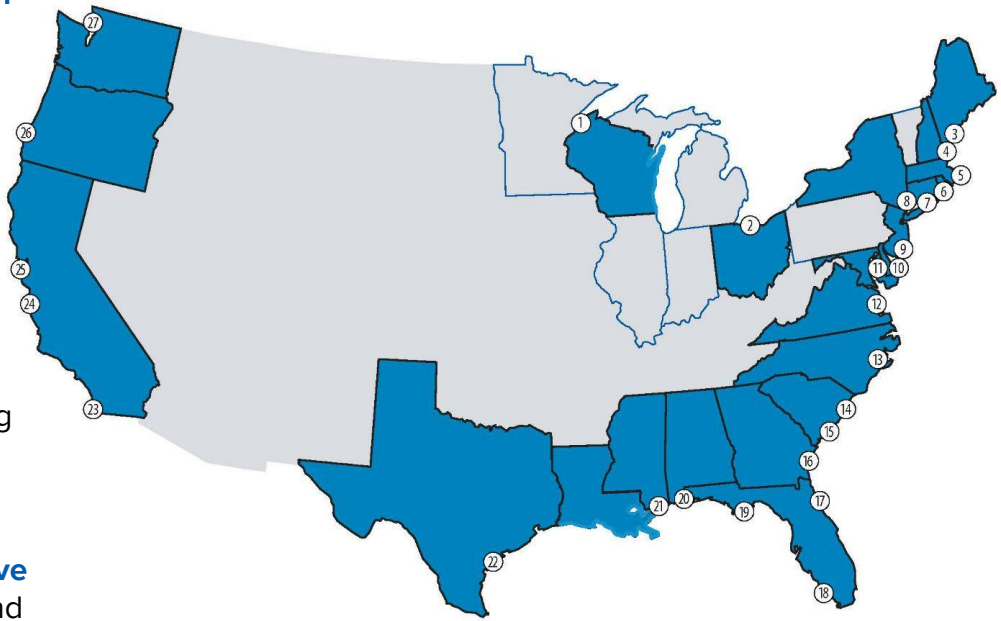
Date: Wednesday, April 26, 2023
Time: 2:00pm-3:00 pm EST

NATIONAL ESTUARINE RESEARCH RESERVES

The National Estuarine Research Reserve System (NERRS)

- NOAA Program
- Place-based collaboration with a local partner, e.g.:
  - State Agency
  - University
  - Nonprofit
- Reserve programs:
  - Stewardship
  - Research and scientific monitoring
  - Training
  - Education

The NERRS Science Collaborative supports science for estuarine and coastal decision-makers.



Great Lakes
1. Lake Superior, Wisconsin
2. Old Woman Creek, Ohio

Northeast
3. Wells, Maine
4. Great Bay, New Hampshire
5. Waquoit Bay, Massachusetts
6. Narragansett Bay, Rhode Island
7. Connecticut

Mid-Atlantic
8. Hudson River, New York
9. Jacques Cousteau, New Jersey
10. Delaware
11. Chesapeake Bay, Maryland
12. Chesapeake Bay, Virginia

Southeast
13. North Carolina
14. North Inlet-Winyah Bay, South Carolina
15. ACE Basin, South Carolina
16. Sapelo Island, Georgia
17. Guana Tolomato Matanzas, Florida

Gulf of Mexico
18. Rookery Bay, Florida
19. Apalachicola, Florida
20. Weeks Bay, Alabama
21. Grand Bay, Mississippi
22. Mission-Aransas, Texas

West
23. Tijuana River, California
24. Elkhorn Slough, California
25. San Francisco Bay, California
26. South Slough, Oregon
27. Padilla Bay, Washington
28. Kachemak Bay, Alaska

Pacific
29. He'eia, Hawai'i

Caribbean
30. Jobos Bay, Puerto Rico

PROPOSED
Bay of Green Bay, Wisconsin
Louisiana

National Estuarine Research Reserve System Science Collaborative

Questions

Use the **Questions** feature to ask the speakers questions about the presentation.

Need help?

Use the **chat** feature to contact organizers and panelists.

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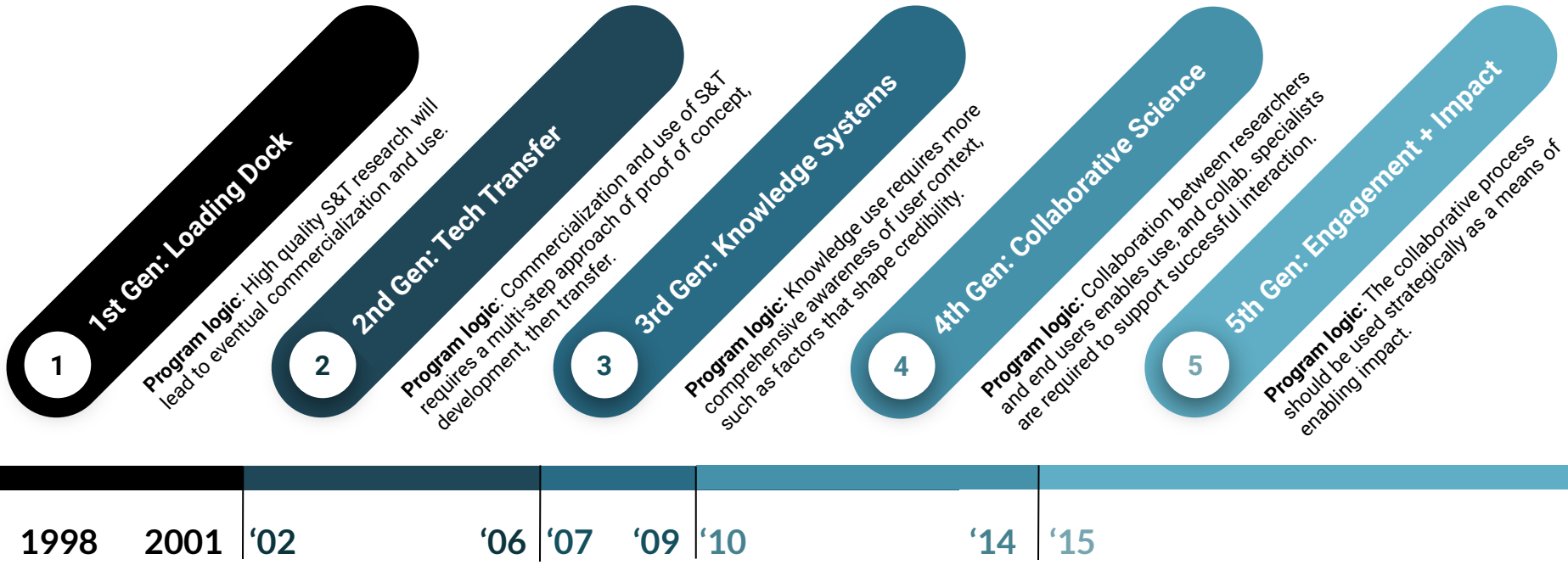
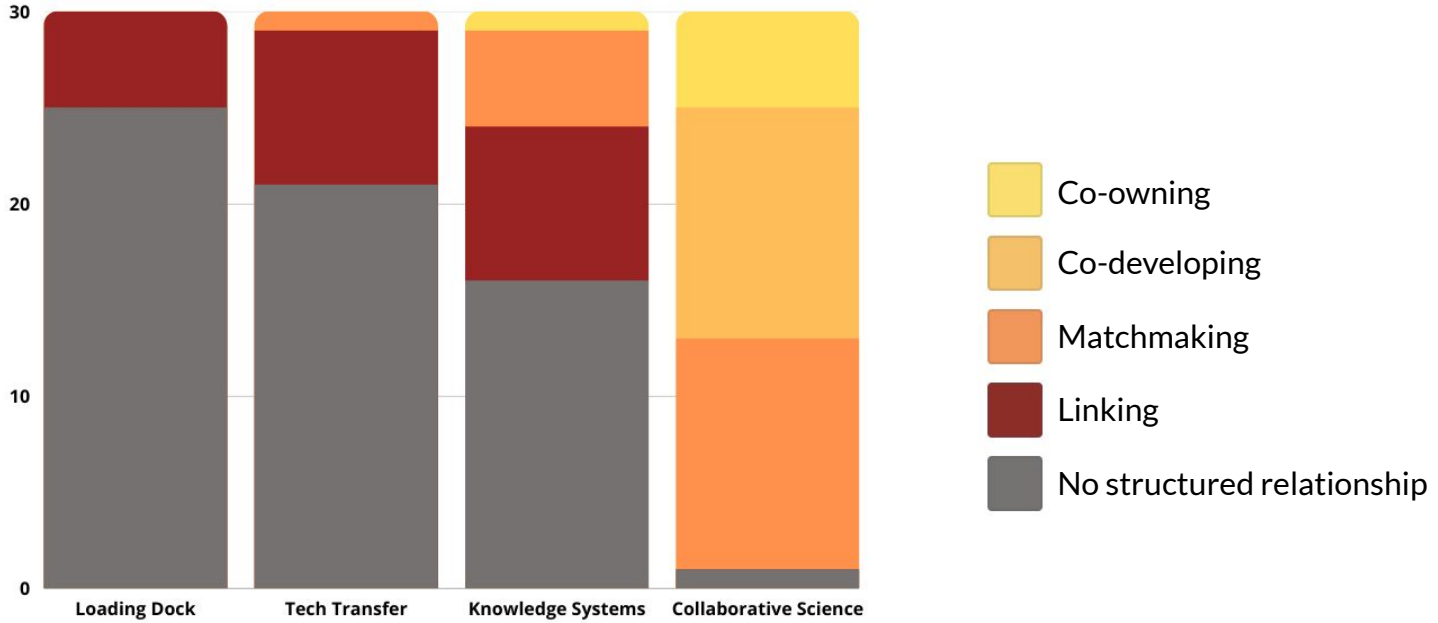
Problem Statement

- Interaction between project teams and intended users is known to help increase the impact of jointly produced knowledge.
- BUT…
  - It takes a lot of time.
  - It can be costly to all parties involved.
- Therefore, the NERRS Science Collaborative wants to understand how its approach can best enable effective collaboration .

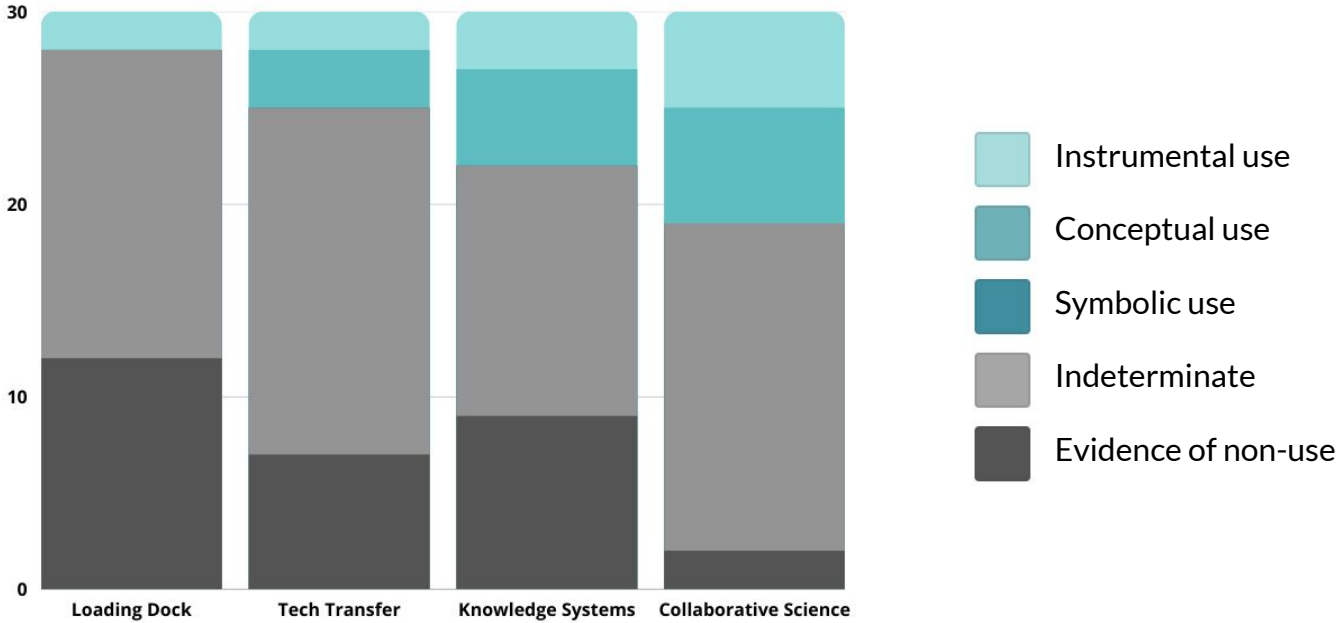
The Science Collaborative Through Time



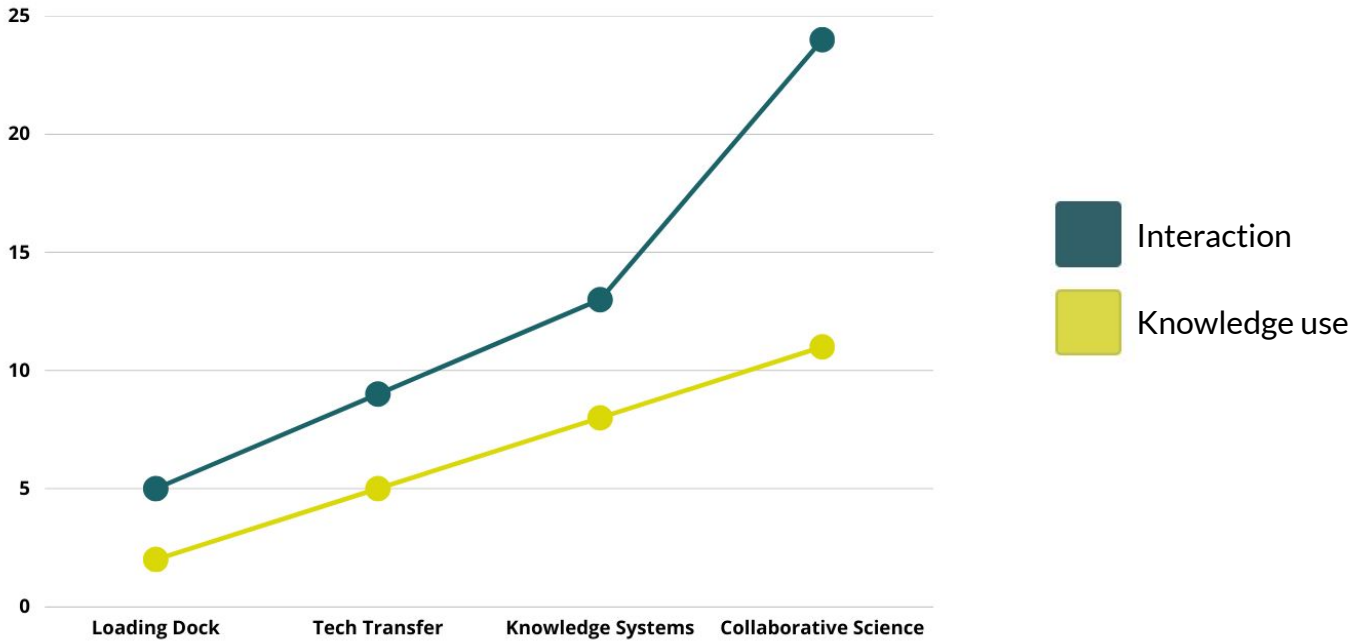
Interaction intensity (first 4 generations)



Use (first 4 generations)



Interaction vs. Use



Engagement + Impact: Reframing the Question

This work includes:

1. Expanding “outcomes” category to understand the nuance of impact beyond use
2. Understanding practical dimensions of “process”
3. Supplementing project reports by talking to users directly about their experiences

Central question: Under what conditions does interaction between project teams and intended users yield impact?

Approach

Document Coding

Surveys

Interviews

3 Points of Analysis

Goals: What were the goals of the project?

Process: What did the process look like? This is referring to both interaction intensity and the practicalities of the engagement

Outcomes: What were the outcomes of this project? How closely did they align with project goals? What was the resulting use?

Approach

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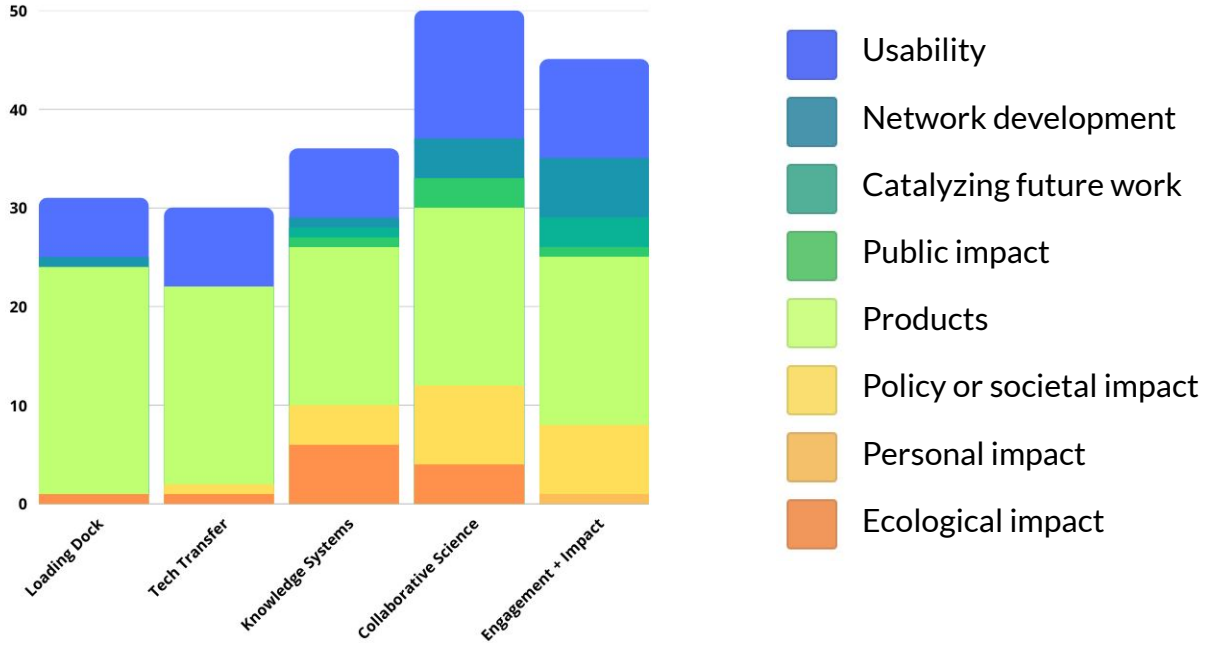
Collaborative Goals

"Be realistic about what you can accomplish from the beginning. What were the results of [similar projects]? Did you ever get off the ground to begin [with]? What was the kind of experience that you can take and apply, so that you don't make the same mistakes... and actually move in a direction that gives you something."

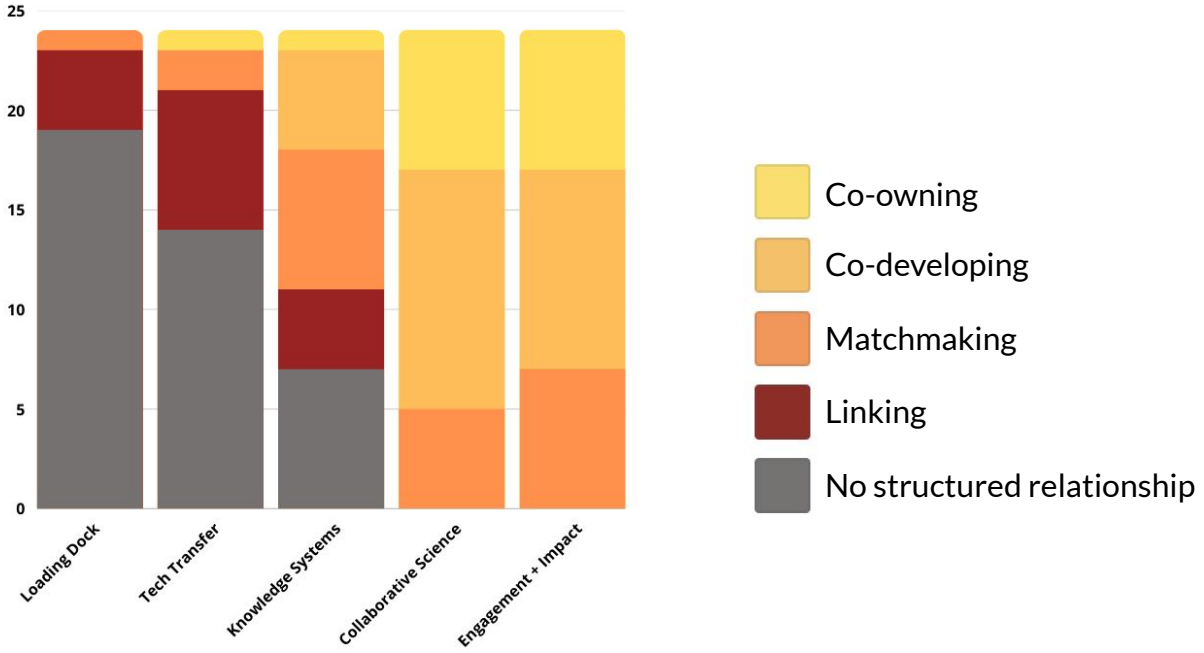
-Senior Program Manager, Environmental Research and Consulting Firm



Interaction Intensity

"[What] we're trying to do, it's just one of one hundred balls that are all in the air. So you have to keep visible enough that people don't forget, and they remember what they're doing, but not so much that also they're like, 'I can't engage on that anymore'. There's definitely a balance in there."

-Senior Research Scientist, Federal Agency



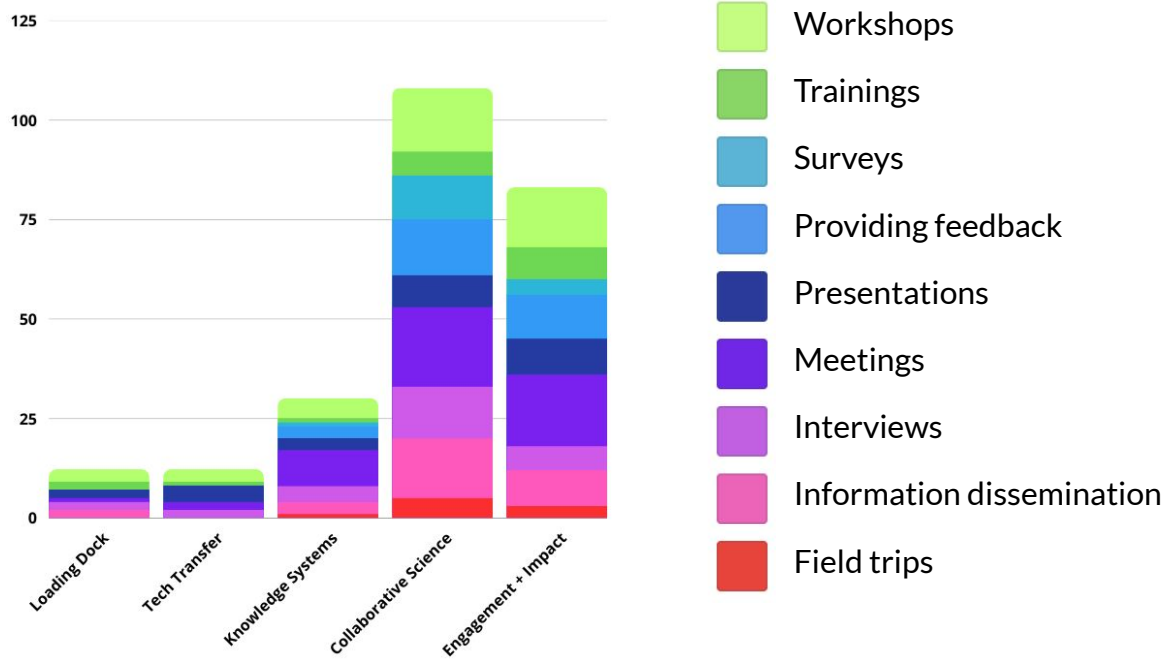
Process Activities

Having multiple people to contact [made a difference]. So let's say if there's someone who really didn't want to talk to a regulatory person, they could talk to somebody else that wasn't regulatory. And I think that was very important."

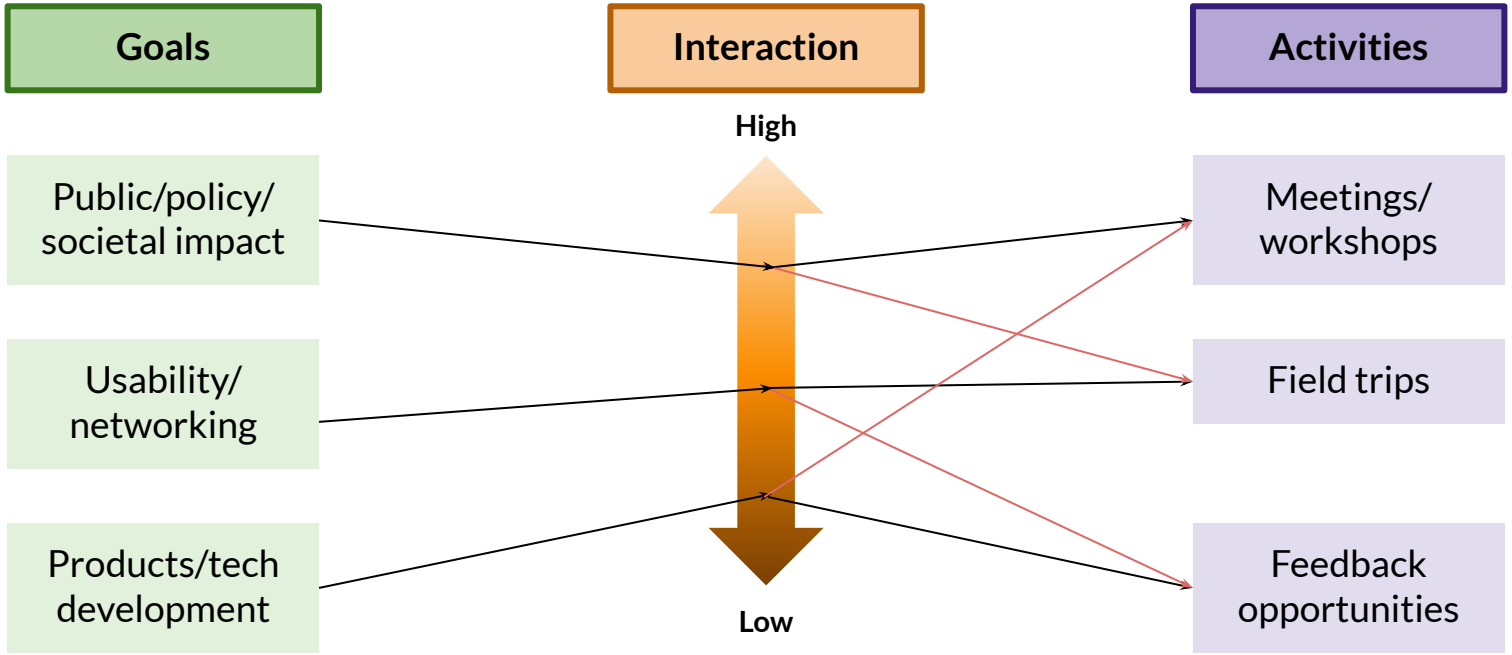
-County Planning Director

It wasn't overwhelmingly scholastic, you know. I think that's one of the things that I see turns off a lot of people... Anything that you can do that can bring it down to earth."

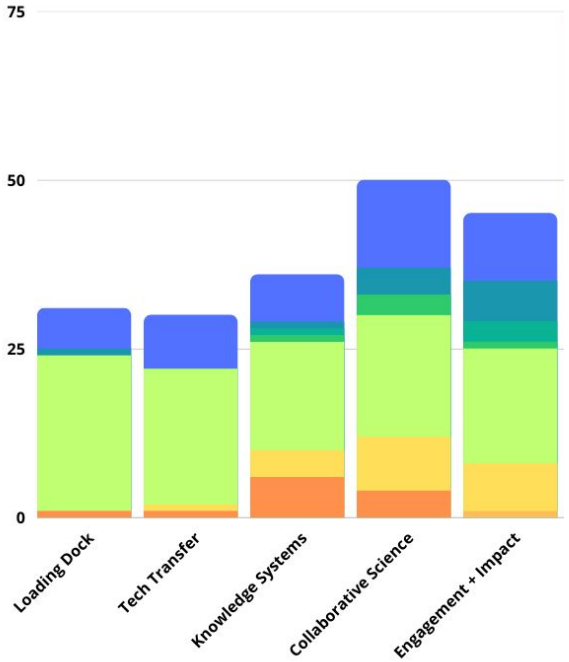
-Conservation District Manager



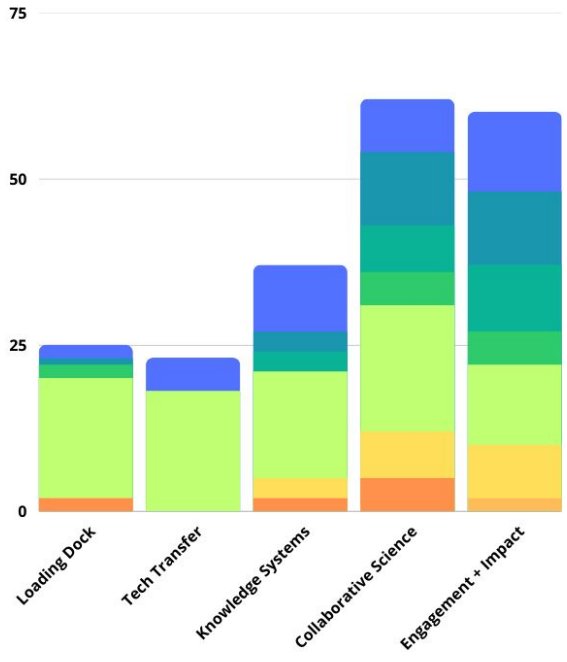
Potential Approach Pathways



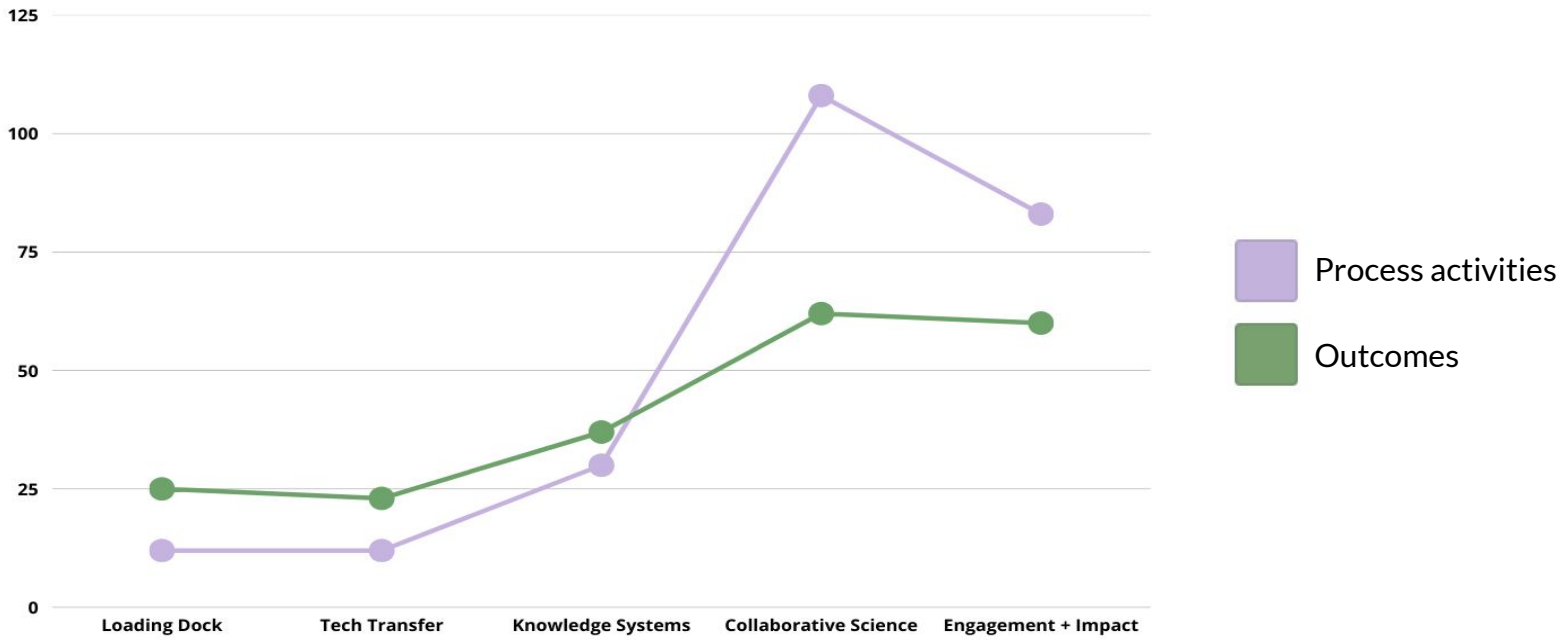
Goals



Outcomes



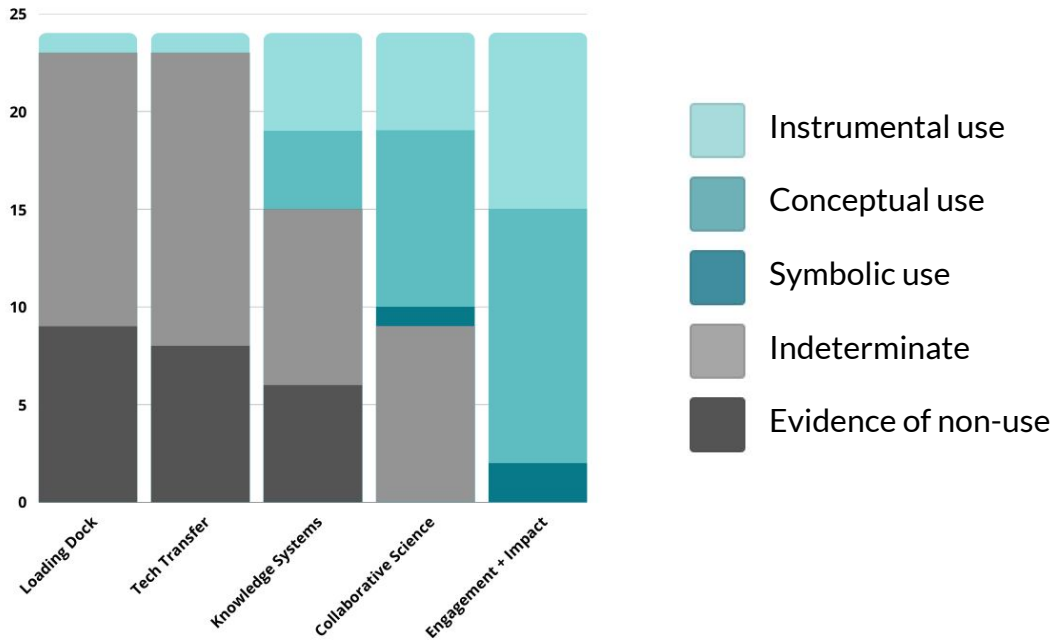
Process Activities vs. Outcomes



Use

.. chain reactions of information and cultural shift... it became a huge awareness thing where people were like 'We need to protect our [habitat]'... It's getting enculturated."

-Conservation District Manager



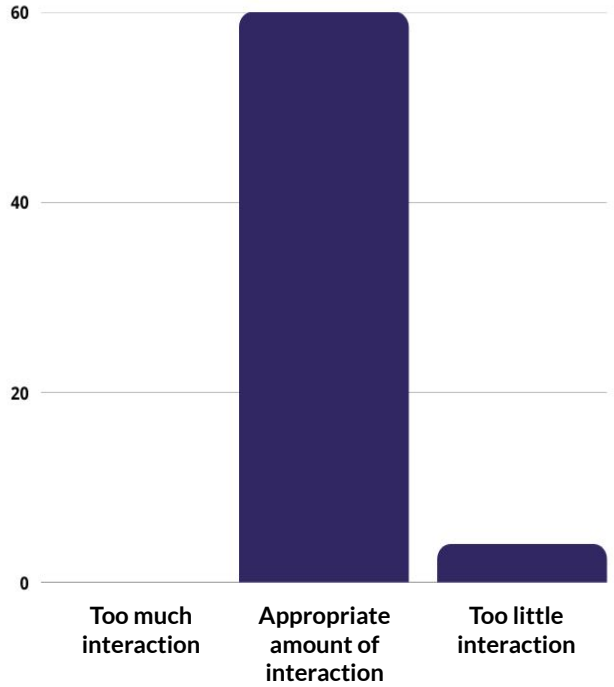
Approach

Document Coding

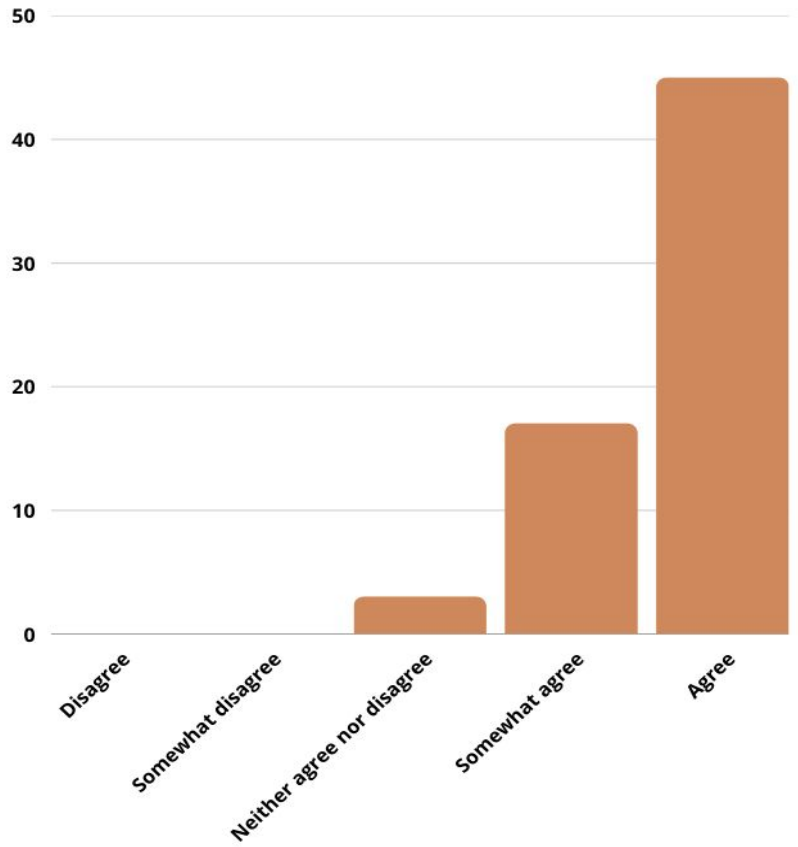
Surveys

Interviews

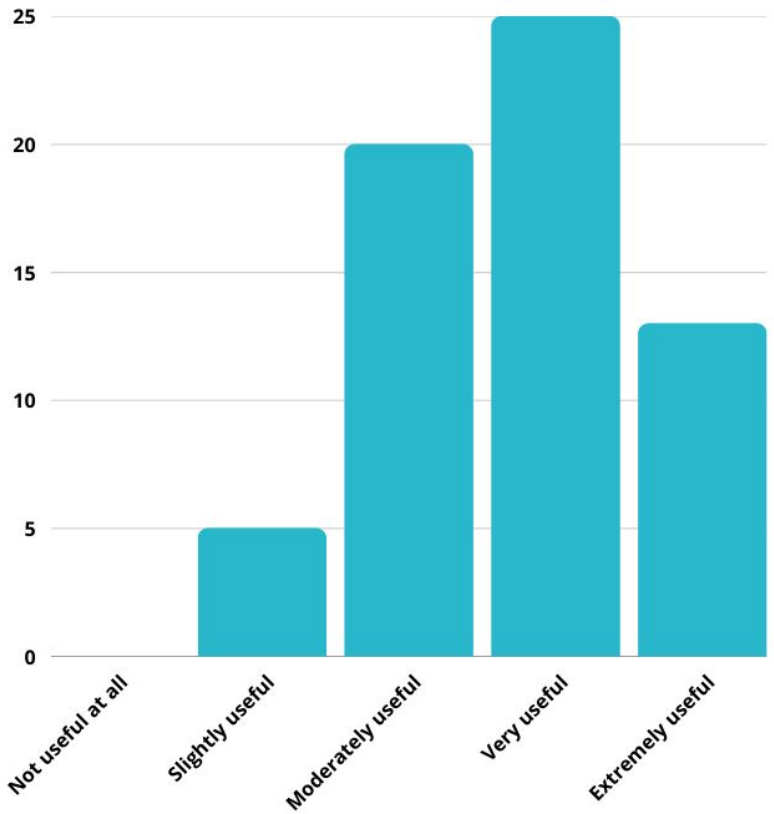
Please indicate which response most closely aligns with your opinion on the amount of time you spent interacting with the project team.



As a participant in this project, I feel like my input and expertise was meaningfully represented in the project's activities and outputs.

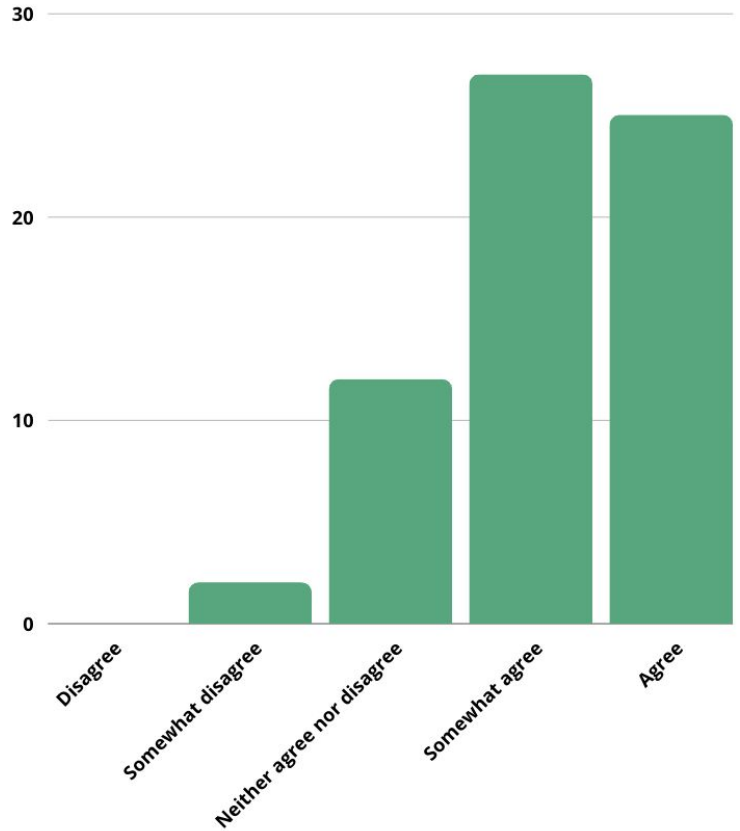


Please indicate the extent to which new knowledge has been useful to your work.



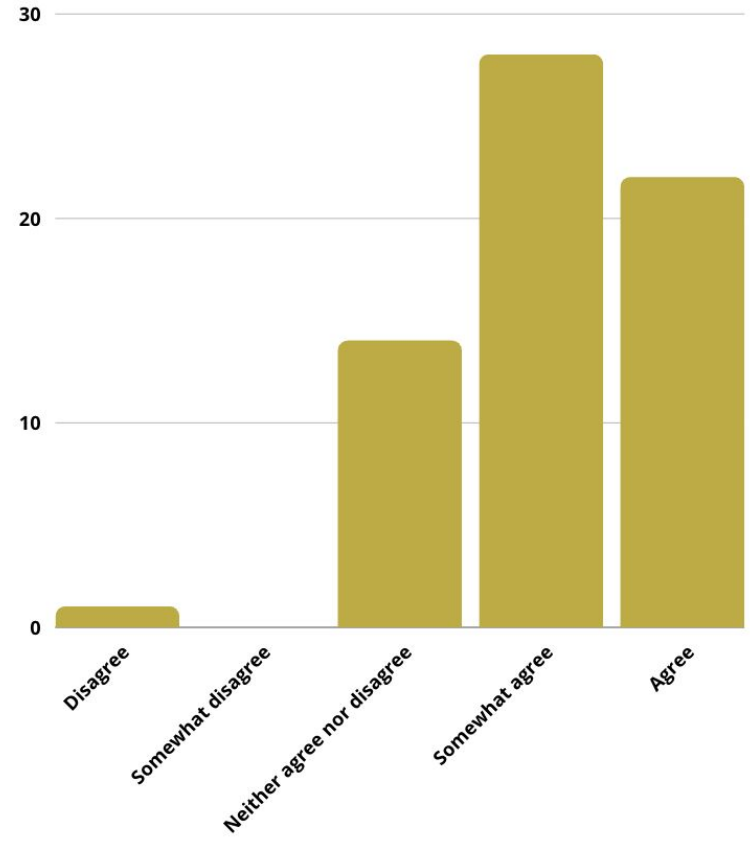
This project has changed the way I think about a problem or potential solutions.

> *The work products, the development of understanding... being able to have a language that's transferable outside of the project area... I'm able to use and apply those understandings in many more contexts."*
>
> **-Borough Land Management Officer**

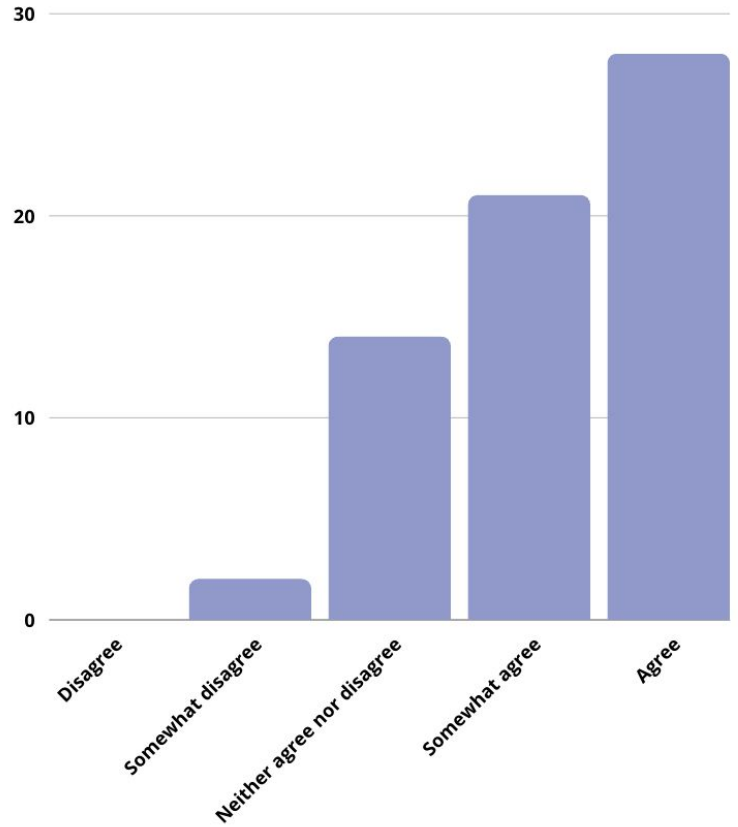


This project has improved my ability to do my job.

> *The lessons learned are the best out of anything I get from any project, because it makes me do my next project better. We openly share, and we can ask [that of] others… I think the reserve system is a safe place to be able to have these types of conversations where folks can lay it on the line."*
>
> -Marine Program Director, Nonprofit Organization



This project has increased the ability of my organization to carry out its mission.



> ***[The project] helped us hone in on what information we needed in the next steps… based on the conceptual alternatives that were chosen to move forward… That kind of stakeholder process really fed into the next stage of planning."***

-Environmental Scientist, State Parks Department

Insights for Practice

Goals: Project scoping should be ***narrow*** but ***long***; allow for ***pivot***

Process: Interaction intensity ***not one-size-fits-all***; build in ***process redundancies*** as much as possible

Outcomes: Provide means of ***closing the loop***; report on ***failures*** to enable better future work; collect ***user feedback*** (if possible)

Broad Takeaways

- Ever-changing understanding of impactful engagement
- Feedback loop between Science Collaborative and project teams
  - Updating of materials: Guide to Collaborative Science, synthesis documents
- Users are pivotal to understanding nuance of collaborative engagement and outcomes:
  - **Process:** Not just *what* to do, but *when* to do it and *how*
  - **Outcomes:** Above and beyond what project teams have the ability to capture

Thank you!

Wrapping Up

- Webinar recording will be made available in the next few days.
- Looking ahead:
  - Next webinar: 3 pm ET, Thursday, June 22, 2023