

Debrief From All-Hands & Stakeholder Meeting



An overview and analysis of Maine's FOREST Grant planning meeting held on May 30th.

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Project Participants

<p>Theme 1: Environmental AI & Informatics</p> <p>Lead: Amanda Stent</p> <p>Co-lead: Torsten Hahmann</p> <p>Team: - Ali Abedi - Salimeh Yasaei Sekeh - Chaofan Chen - Aaron Weiskittel - Daniel Hayes - Kasey Legaard - Isaac Lage - Justin Becknell - Behrooz Mansouri - Rafiul Hassan - Mark Royer</p>	<p>Theme 2: Forest-based Nanomaterials & Bioproducts</p> <p>Lead: Colleen Walker</p> <p>Co-lead: - Jinwu Wang - Douglas Bousfield</p> <p>Team: - Salimeh Yasaei Sekeh - Mehdi Tajvidi - Yonghao Ni - Asheesh Ravikumar - Lanba</p>	<p>Theme 3: Rural & Tribal Resiliency</p> <p>Lead: Sandra De Urioste-Stone</p> <p>Co-lead: Jessica Jansujwicz</p> <p>Team: - Darren J. Ranco - John Daigle - Adam Daigneault - Kennedy Ned Rubert-Nason - Vanessa Levesque - Jamie A. Haverkamp</p>	<p>Theme 4: Smart Rural Development</p> <p>Lead: Andrew Crawley</p> <p>Co-lead: Kathleen Bell</p> <p>Team: - Kelsi Hobbs - Caroline Noblet - Adam Daigneault - Sandra Goff</p>
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Overview

On May 30, 2023, the Maine FOREST Grant held a planning meeting. An online survey was developed to gain insights into the individuals involved in the FOREST grant project. This survey aimed to assess the strengths and weaknesses of the team and gather individual perspectives on the forest product sector. The survey was distributed to team members via email and administered in person during the meeting.

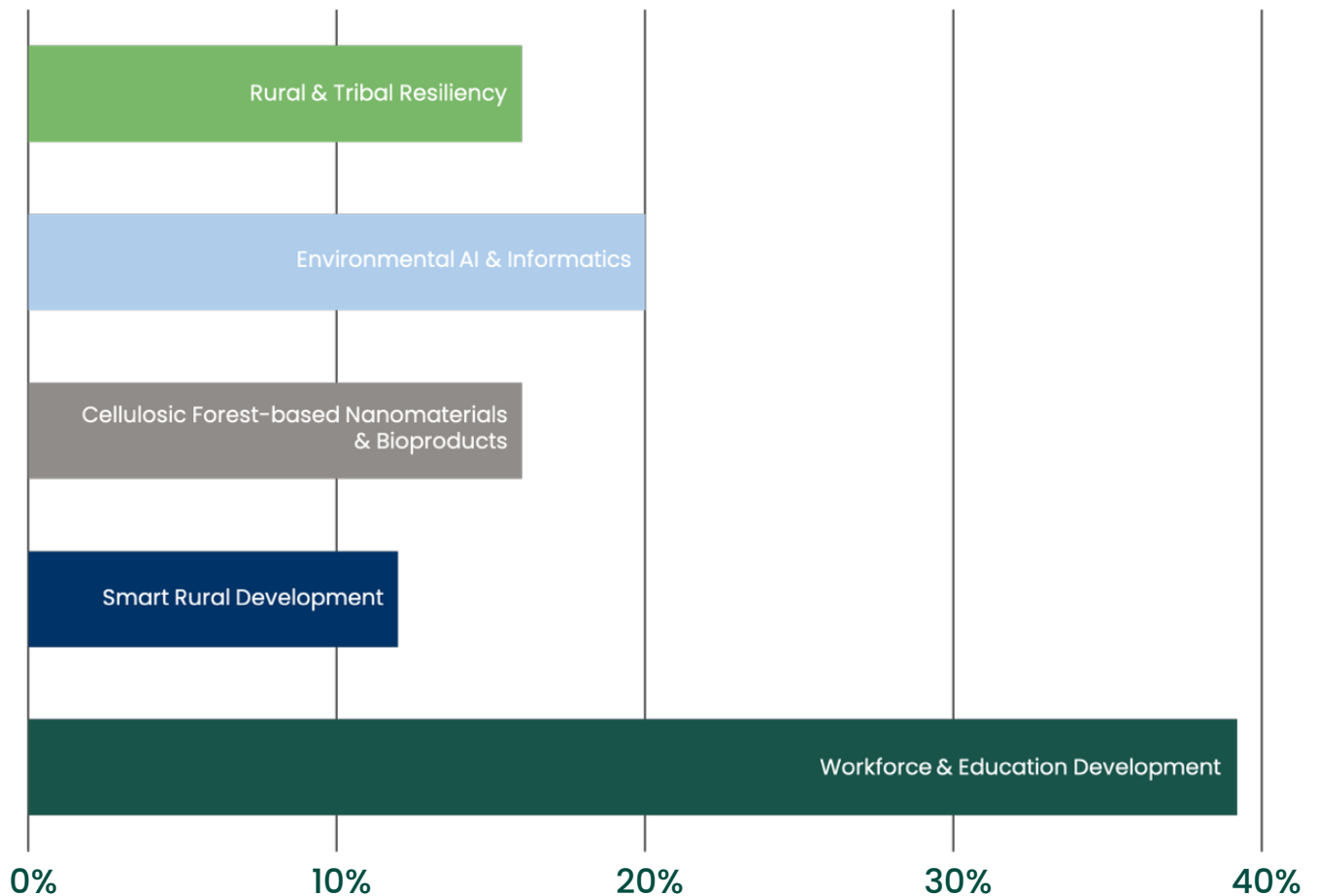
At the meeting, participants were randomly divided into four groups to discuss challenges and potential solutions related to the Maine-FOREST Grant project. Group A identified data challenges and workforce development as key concerns. They proposed solutions including finding new data sources and upgrading technology. Group B echoed workforce development as a key challenge and suggested worker education and improved communication as solutions. Group C focused on communication issues between educational institutions and industry professionals. The group identified solutions including better communication and increased educational access. Group D highlighted communication, workforce development, data availability, and AI/materials overlap as challenges. They discussed improving communication and hiring an AI expert as solutions. All groups emphasized improvements in education, communication, and workforce development as solutions to address the various challenges of the project.

Collectively, the groups anticipate contributing to the forest-products sector by improving industry resilience, advancing cellulose nanofiber (CNF) development, and enhancing communication between the industry, schools, and communities. Through these contributions, this grant aims to rebrand the forest-product sector, bring CNF closer to market, and bridge the gaps between stakeholders.

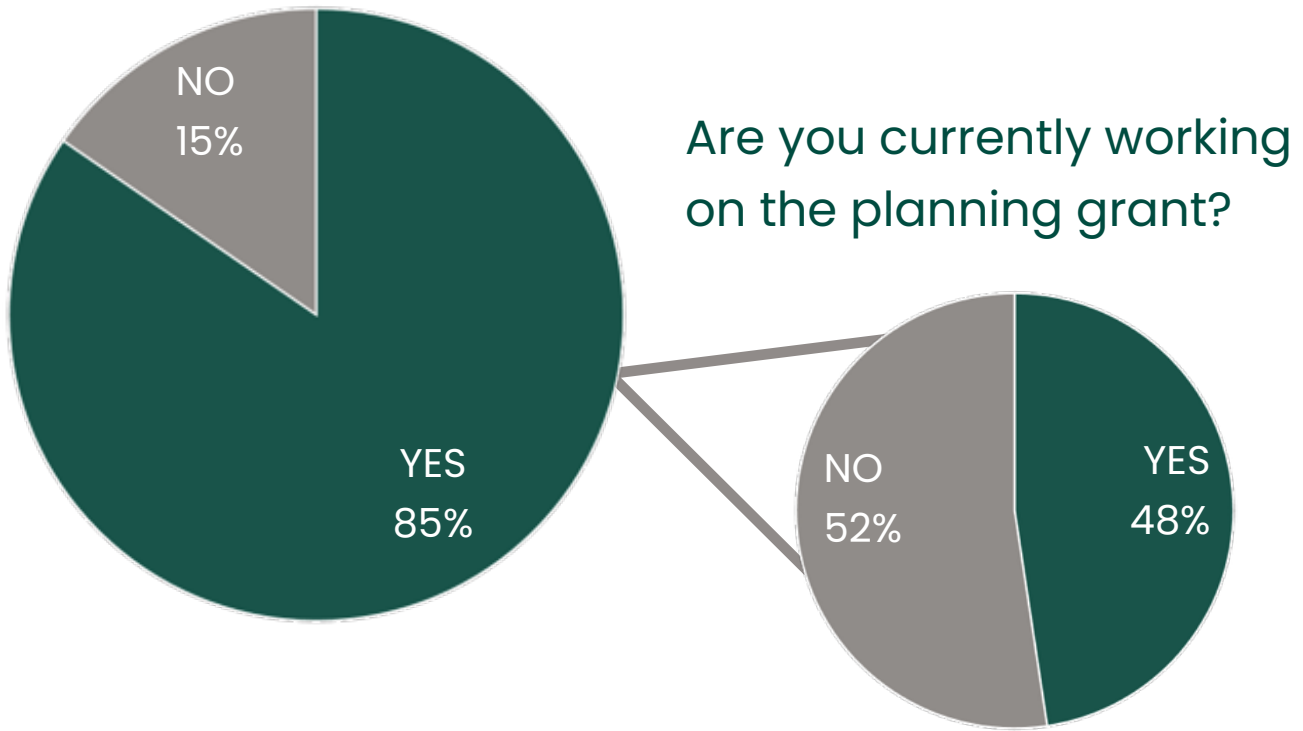
About the Survey

To better understand the individuals working on the FOREST grant, we created an online survey. The survey was designed to gauge the strengths and weaknesses of our team. Additionally, the survey collected information related to how our team members view the forest product sector as a whole. The survey was distributed to FOREST grant team members via email and administered in person at the May 30th meeting. We received approximately 26 responses. The (*n=*value) displays the total number of responses for each question.

What research team are you a part of? (n=25)

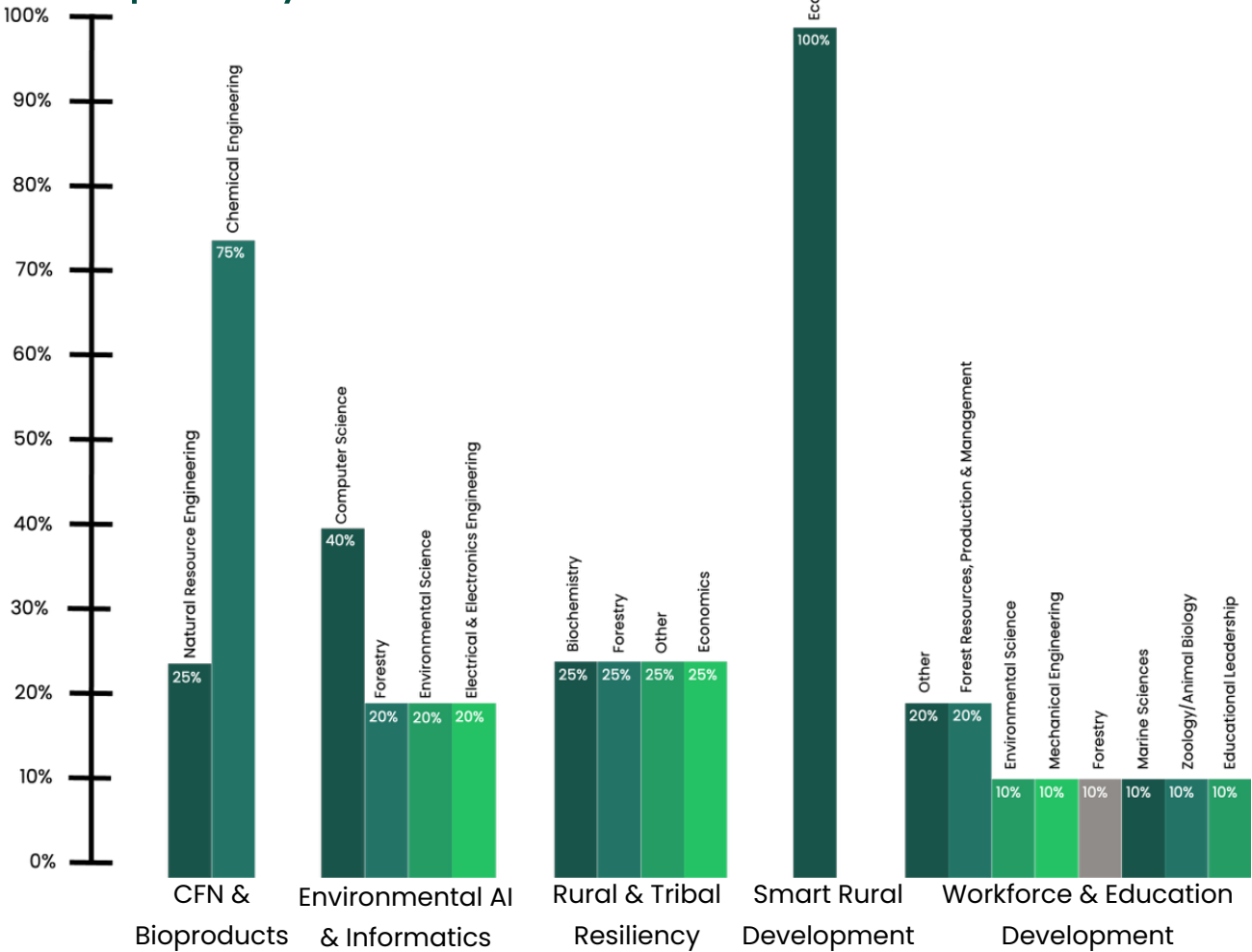


Have you been involved with the development of Maine-FOREST? (n=21)

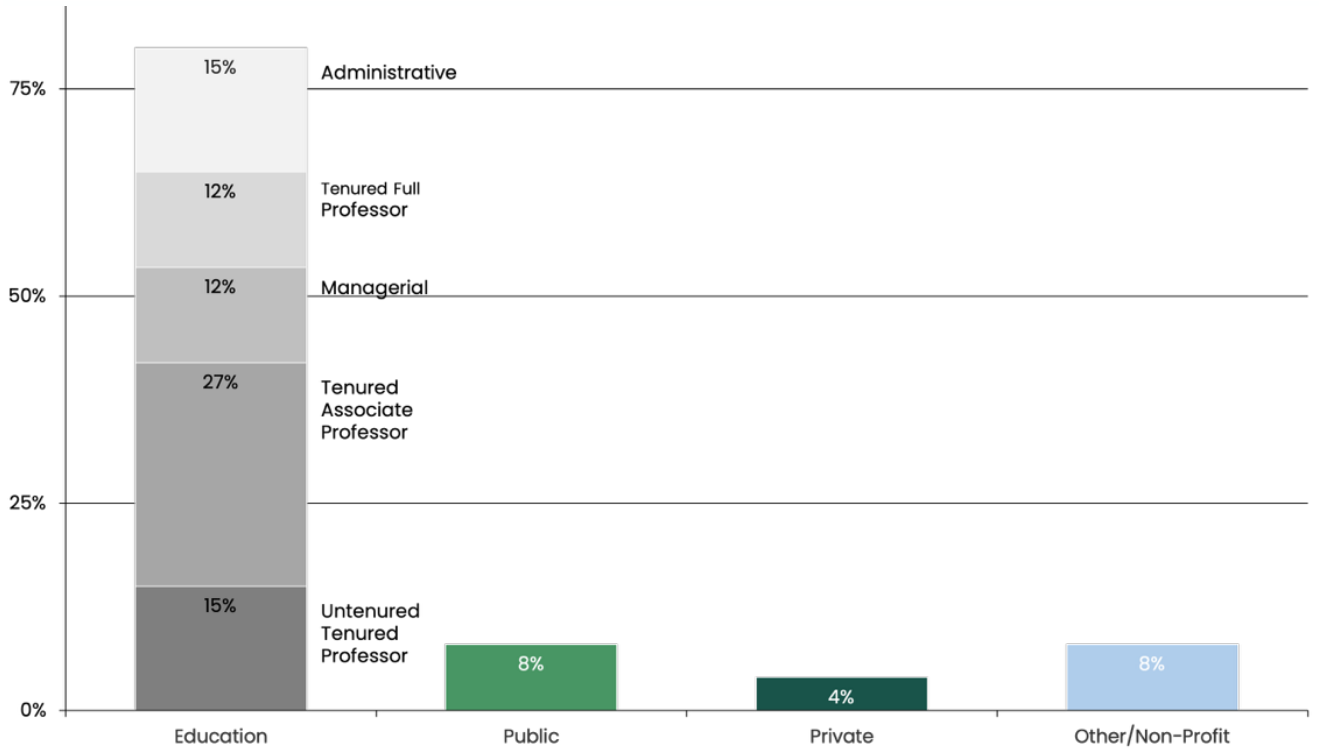


What is your primary field of study?

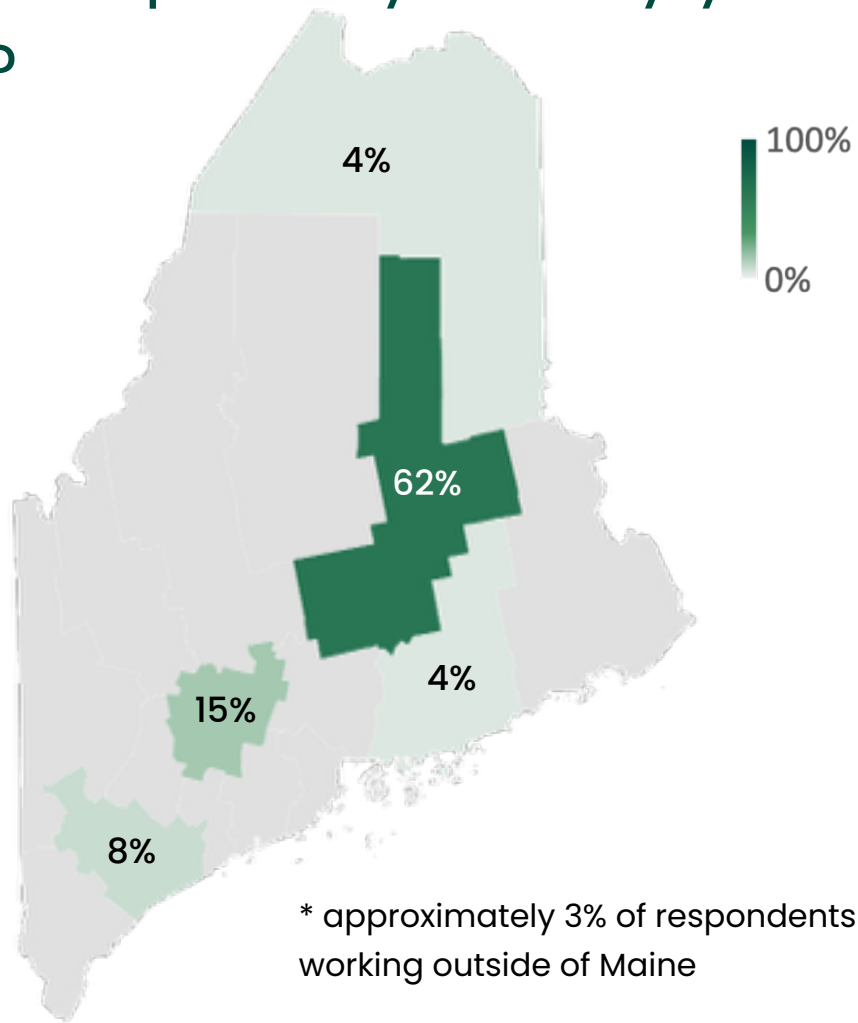
Grouped by team (n=26)



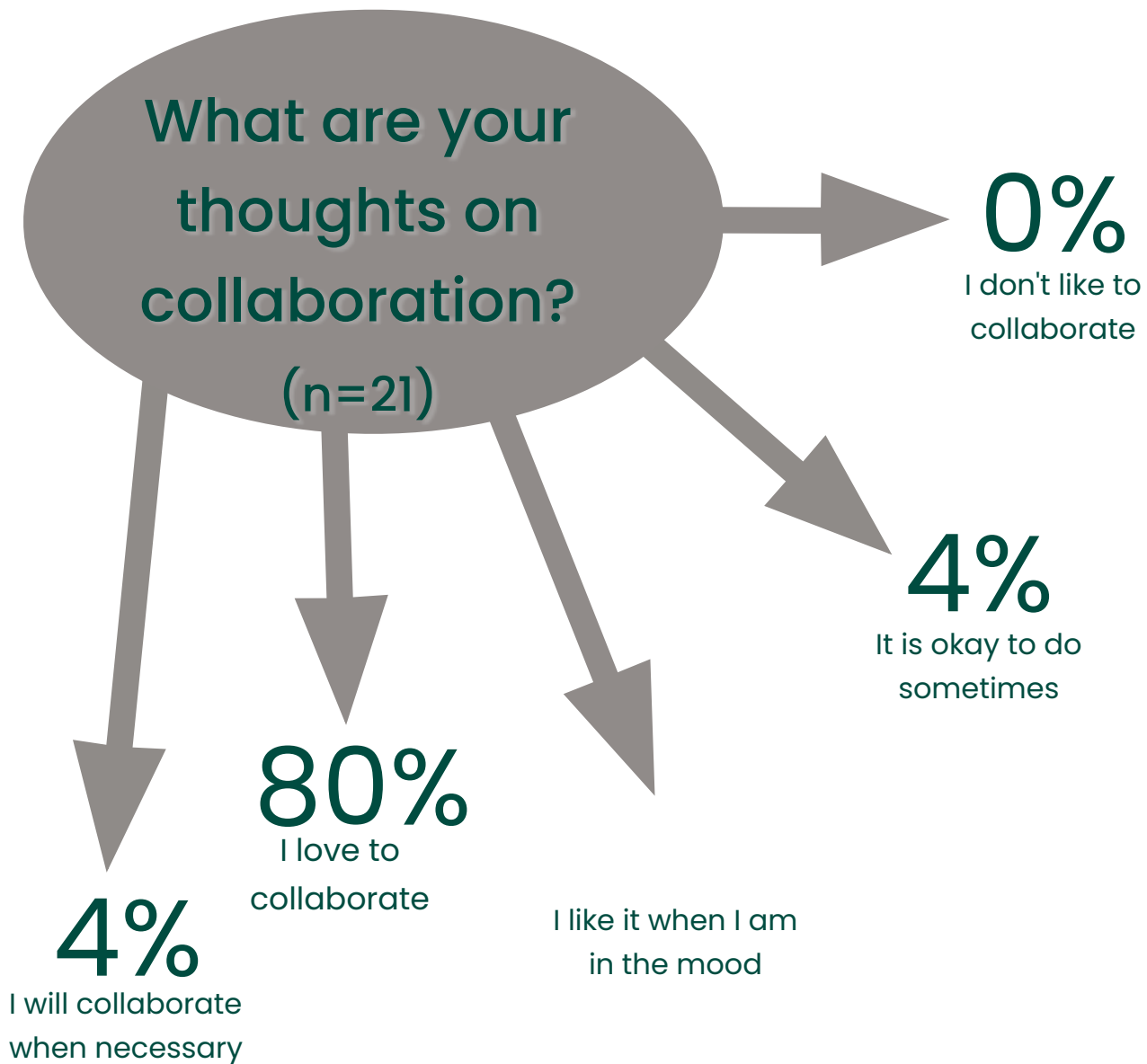
What sector do you work in? (n=26)



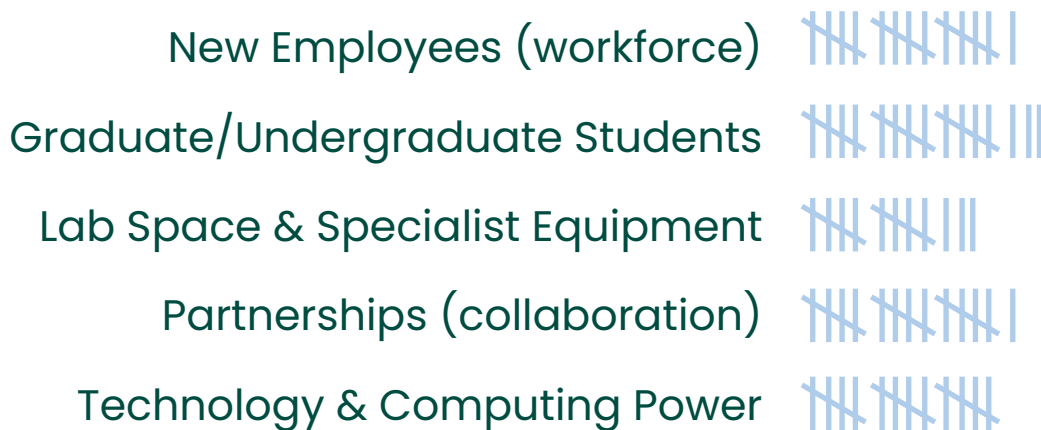
What is the primary county you work in? (n=24)



* approximately 3% of respondents report working outside of Maine

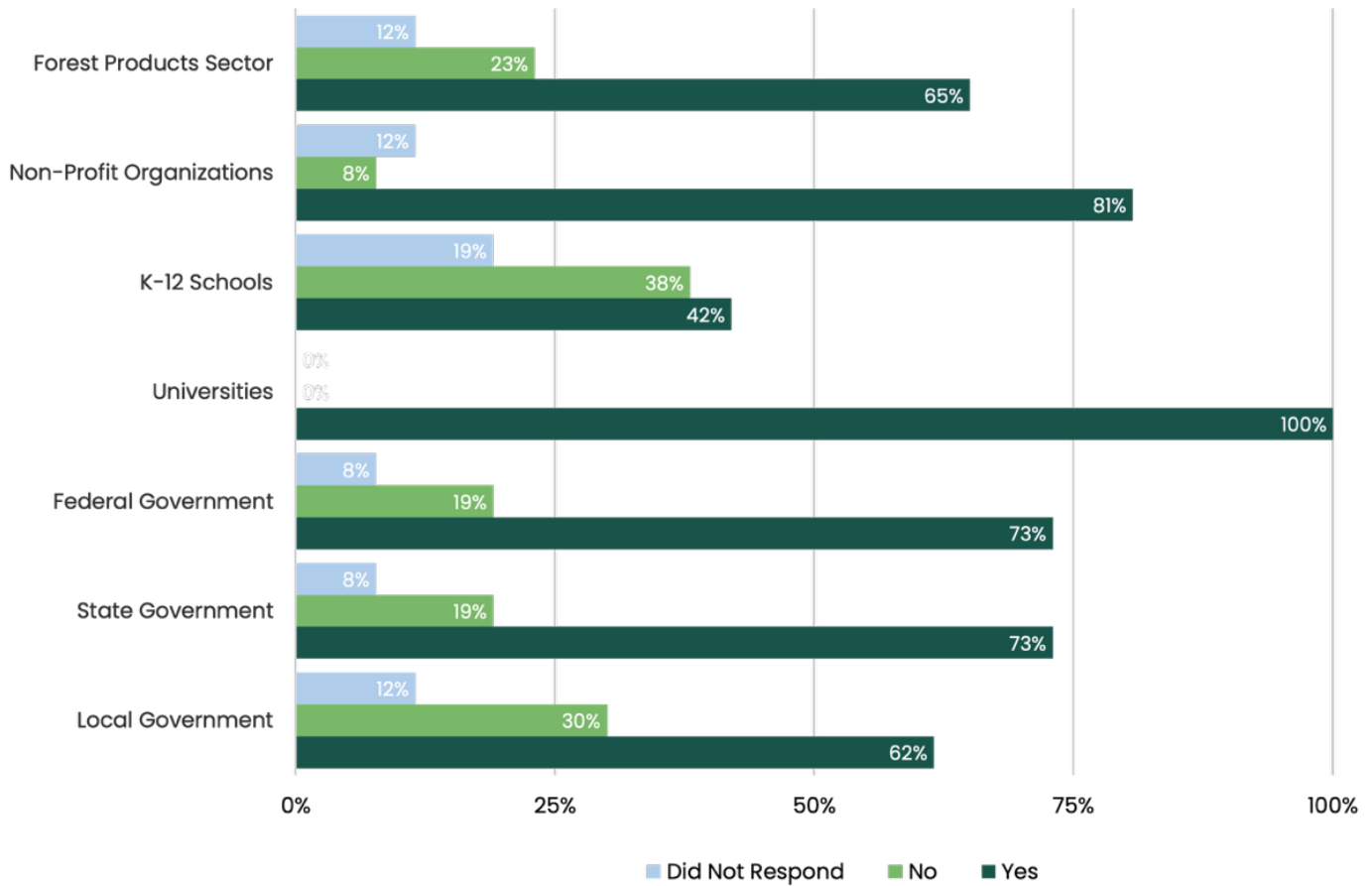


What tools does your team need to get the job done? (n=25)

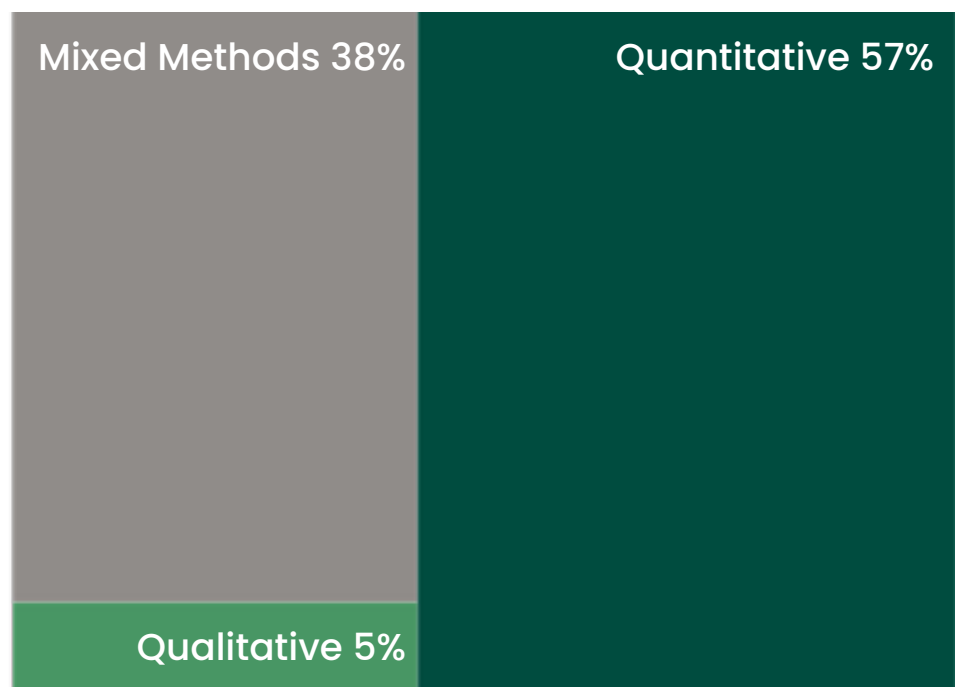


-Tallies represent "Very Important" & "Important" answers.

In your current role, what stakeholders do you work with? (n=98)



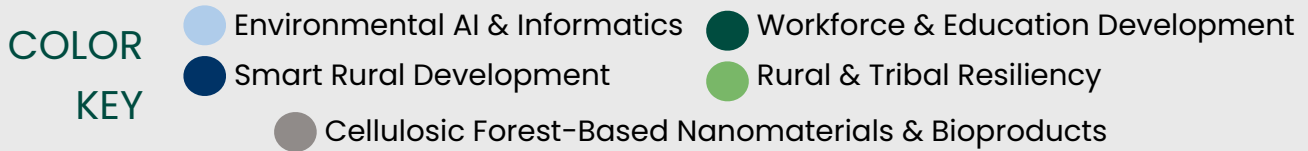
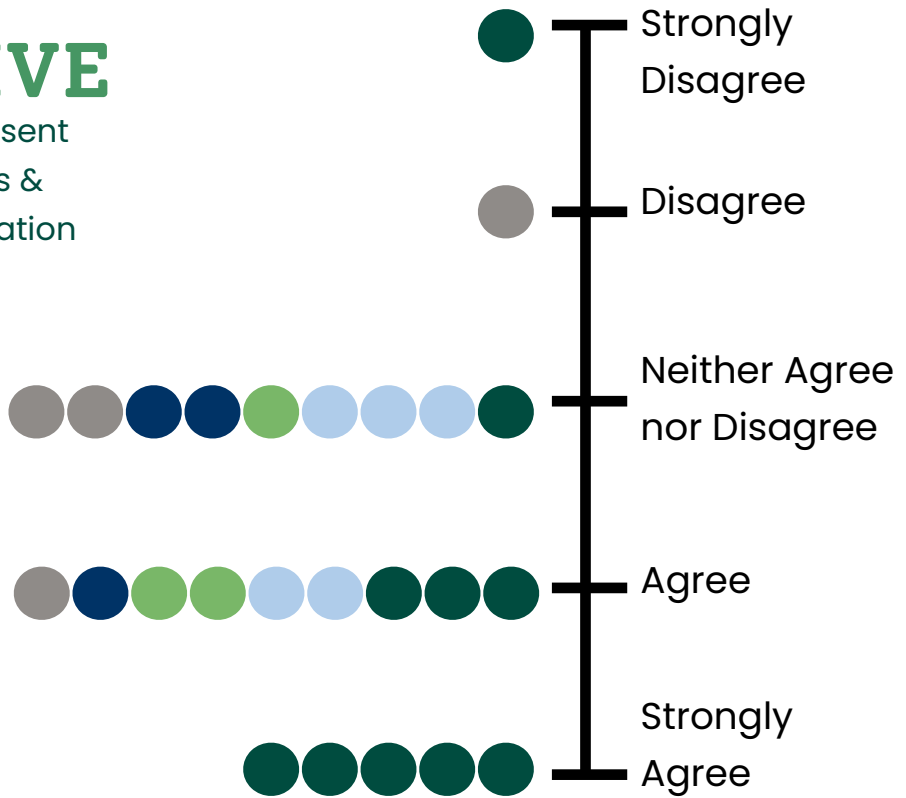
Is your work more qualitative or quantitative? (n=21)



Maine's FOREST PRODUCT Sector is

INOVATIVE

-Colored dots represent individual responses & research team affiliation



IMPORTANT

-Colored dots represent individual responses & research team affiliation



Afternoon Discussion Groups

During the afternoon session, participants were randomly divided into four groups of five. Each group was then asked to discuss a series of questions related to their work on the FOREST Grant.

Discussion Topic 1

The groups were asked to identify the primary challenges they've encountered or anticipate encountering while working on the Maine-FOREST Grant. Groups were also asked to brainstorm potential solutions to these challenges.

Group A

Data challenges were cited as the most significant concern by Group A. They identified a potential lack of useable data for the project, specifically data related to artificial intelligence (AI). The group discussed multiple solutions including finding and working with new data sources and the need to upgrade technology. Another challenge highlighted by Group A involved issues with workforce development. They proposed that additional support for and provision of worker training may potentially alleviate the workforce development issues.

Group A also identified challenges related to the risk of innovation facing the CNF team and the community engagement challenges encountered by the Rural and Tribal Resiliency team. The group, however, did not talk about solutions for these issues.

Group B

Workforce development was the key challenge identified by Group B. Similar to Group A, Group B reported worker education (e.g., certificates & short courses) as the primary solution to this challenge. Additionally, they identified improved communication between the researchers on the grant and with the forest-products sector as possible solutions.

Group C

The most significant challenge Group C identified is the disconnect between industry needs and educational institutions. Members in Group C believe this disconnect is the result of poor communication between institutions and industry professionals. As a result, students and educators are unaware of industry needs. Improved communication between industry professionals and educators was identified as a potential solution to this issue.

The second challenge cited by Group C was workforce development. Group C believes this challenge may be overcome by providing students with the educational access needed to develop the required skillset. Another crucial challenge identified by the group encompasses social and community engagement. Increasing community infrastructure was listed as a potential solution to this challenge. Next, the group identified challenges related to a diversity equity and inclusion gap. Here, they proposed the support of female practitioners as a solution.

Finally, Group C highlighted the industry's reputation and tensions within the natural resource sector as challenges. They discussed issues created by the common narrative that the *forest-products sector is dying*. Group members talked about monetary support through investment, bridge programs, and partnerships with Non-Government Organizations as potential solutions.

Group D

Group D identified four key challenges:

1. Communication
2. Workforce development
3. Data Availability
4. A.I./Materials overlap.

The first solution discussed by Group D was improved communication within the grant, between the forest-products sector and researchers, and with the workforce. The second solution was workforce development, primarily relating to A.I. Specifically, Group D talked about the need to hire an A.I. expert who has knowledge of material sciences.

Common Themes

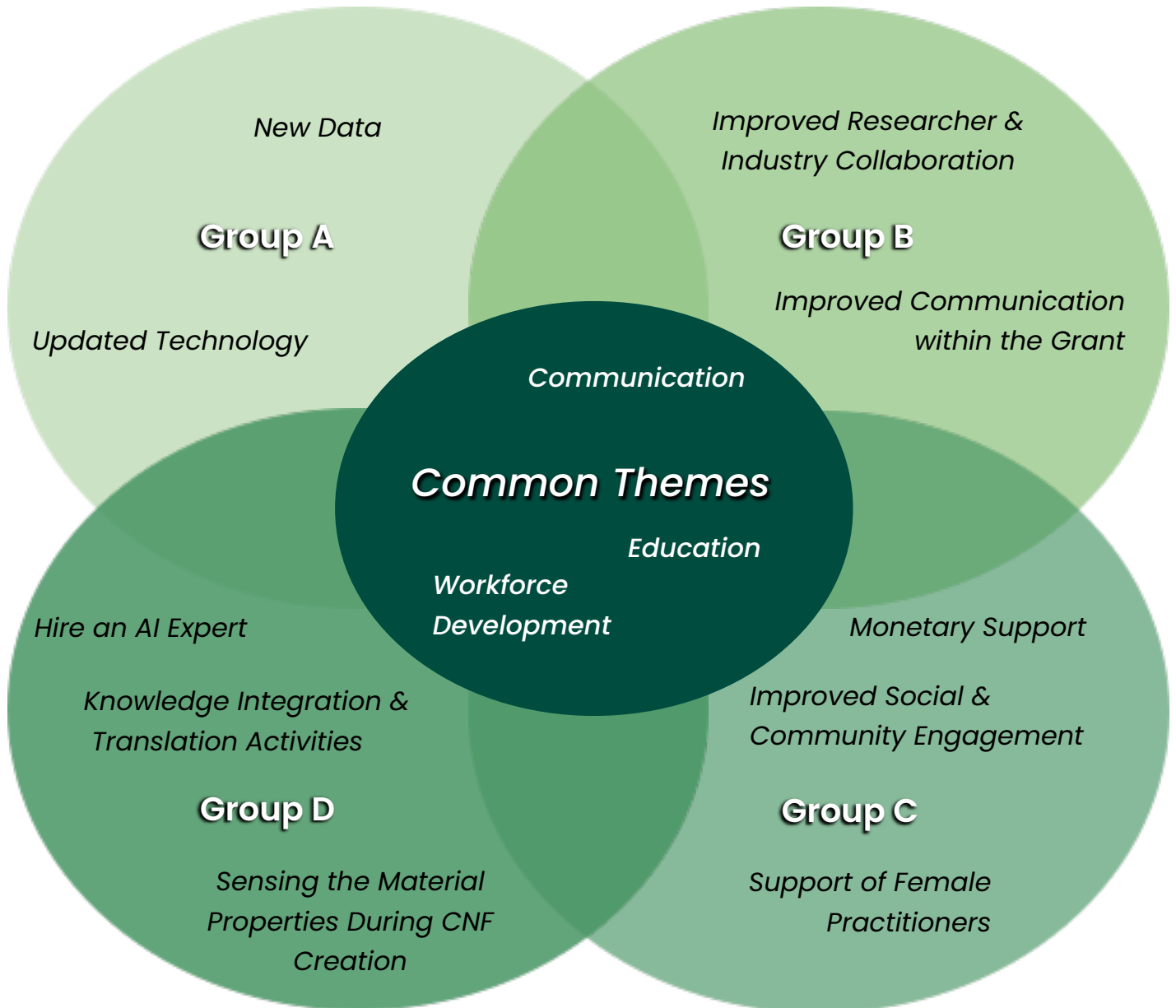
All four groups identified education, communication, and workforce development as potential solutions to the issues they've encountered while working on the FOREST Grant.

Communication was identified as a key solution to the current misalignment between what the sector needs and how those needs are perceived by communities, laborers, and researchers. Team members working on the grant, researchers and professionals in the forest-products sector; the forest-products sector and local communities; the forest-products sector and the workforce; and the forest-products sector and schools could all benefit from improvements in communication. For example, further communication between the sector and schools may encourage more students to pursue work within the sector.

The other two core solutions, education and workforce development, look to tackle the challenges regarding skill/worker mismatch. As the forest-products sector evolves, so does the skillset required for workers to succeed in the industry. Workforce development attempts to address the mismatch between incoming workers and the needs of the sector. The groups identified several potential solutions to the workforce development challenges including more employee trainings, certificate programs, short courses, etc.

When discussing education, the groups focused on educating teachers and students about the wide variety of jobs within the sector. Additionally, group members talked about restructuring current educational programs to better fulfill the changing needs of the forest product sector.

Summary of the Solutions Brainstorming Session



Discussion Topic 2

The groups were then asked to identify how their work on the Maine-FOREST Grant will impact the forest products sector in Maine.

Group A

1. Help recognize & value cultural priorities
2. Identify important **POINTS OF CONTACT** within the various communities (i.e., schools)
3. Research the risks of **CNF DEVELOPMENT**
4. Provide **PLANNING** and **DEVELOPMENT** resources

Group B

1. Help the sector become **FLEXIBLE & ADAPTIVE**
2. Provide data and information related to forestry preservation and harvesting practices
3. Improve **COMMUNICATION** between stakeholders
4. Create a shared understanding between the various stakeholders through listening/integration of ideas

Group C

1. Increase sustainability
2. Bring **CNF PACKAGING** closer to market (determine how to scale & commercialize)
3. Identify the industries evolving labor demand
4. Increases **RESILIENCY** in the industry, economy, and community
5. Improve **UNDERSTANDING** of macro factors in Maine's economy
6. Empower people to re-imagine future

Group D

1. Lower cost and better quality data synthesis & sensors
2. Translation of **UNIVERSITY RESEARCH** to **INDUSTRY APPLICATION**
3. Increase workforce
4. Generate new **PRODUCT DEMAND**
5. **REBRAND** the forestry sector

Common Themes

Collectively, the groups highlighted how they anticipate using the grant to make three essential contributions to the sector:

1. Improve industry resiliency
2. Produce cellulose nanofibers (CNF)
3. Increase communication

All four groups agreed that their work would make the forest-products sector in Maine more resilient. Through the grant, the groups believe they will be able to rebrand the sector as relevant, flexible and adaptive. Next, the groups talked about how their work will contribute to the research and development of CNF packaging. Specifically, they discussed how this project will help bring CNF to market and create new demand within the forest-products sector. Additionally, all groups agreed that their work will improve communication between the industry, schools, and communities. Through this grant, the groups anticipate increasing the workforce, connecting university researchers with industry professionals, and boosting the understanding of needs within the industry.

Conclusion

This report outlines the utilization of an online survey to gain a deeper understanding of the individuals participating in the FOREST grant project. The primary objectives of the survey were to:

1. Assess the strengths and weaknesses of the FOREST grant team as a whole
2. Gather information related to how our team members perceive the forest product sector

The survey was disseminated through email and an in-person meeting, resulting in the collection of 26 responses.

Additionally, the report provides an overview of the grant planning meeting that took place on May 30, 2023. During the meeting, participants were organized into four discussion groups. Each group was tasked with addressing challenges and brainstorming potential solutions pertaining to their involvement in the Maine-FOREST Grant. The four groups identified educational improvements, communication enhancements, and workforce development, as solutions to the challenges they've encountered while working on the grant. Furthermore, the groups explored the anticipated impacts of their work, emphasizing improvements in industry resilience, advancements in CNF research and development, and the facilitation of better communication within the sector.

Acknowledgements

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