



Center for Advanced Forestry Systems Bylaws

Approved: Dec 7, 2021

ARTICLE I – Introduction

The following operating procedures will be used to govern the Center for Advanced Forestry Systems (CAFS), a National Science Foundation (NSF) Industry & University Cooperative Research Center (IUCRC). Currently, CAFS comprises the following affiliated universities/sites: (1) University of Maine (lead institution); (2) University of Georgia; (3) University of Idaho; (4) Oregon State University; (5) Purdue University; (6) University of Washington; and (7) North Carolina State University. Current industry members and their annual contributions by university site are provided in Appendix A – Current CAFS Membership List by Site. Additional universities and members may join CAFS as specified below. Note that IUCRC Membership Agreement has precedence over the Center Bylaws and Memorandum of Understanding (MOU). The terms of these Bylaws shall be subject to the terms set forth in solicitation [NSF 17-516](#).

ARTICLE II – Purpose

The mission of CAFS is to optimize genetic and cultural systems to produce high-quality raw forest materials for new and existing products by conducting collaborative research that transcends species, regions, and disciplinary boundaries. CAFS is a multi-university center that works to solve problems through multi-faceted approaches and questions on multiple scales, including molecular, cellular, and individual tree-, stand-, and ecosystem-levels.

Research focal areas include, but are not limited to: biological sciences (biotechnology, genomics, ecology, physiology, and soils), management (silviculture, planning, and optimization), and data analysis/synthesis (bioinformatics, modeling, remote sensing, and spatial analysis). Specific objectives of CAFS are:

1. Serve as a national organization for R&D relevant to the forest industry;
2. Coordinate and perform national research activities across multiple sites that align with the prioritized needs of forest industry;
3. Document and communicate key research outcomes to relevant stakeholders;
4. Provide a long-term strategic vision for forest industry research needs;
5. Convene leading scientists from academia and industry who are prepared to address new/unforeseen challenges to the forest industry, such as changing markets; and
6. Create national networking opportunities for universities and forest industry.

ARTICLE III – Organization

CAFS consists of a Center Director, Site Directors, Project Scientists (individuals with a CAFS-approved research project), IUCRC Academic Leadership Team (CAFS Director and each Site Director), Industry Advisory Board (IAB; composed of

representatives from each CAFS member), IAB Executive Committee (appointed IAB member representative from each site), and a Center Assessment Coordinator appointed by the National Science Foundation. University membership into CAFS requires the member university to adopt and sign the University Memorandum of Understanding (Appendix B - University Memorandum of Understanding). Industrial membership into CAFS is through an Industrial Membership Agreement (Appendix C - Industrial Membership Agreement).

The Center Director reports to their affiliated university's appointed supervisor, while Site Directors are chosen by the participating university. Project Scientists can be any faculty member affiliated with a CAFS site. IAB representatives can be any individual formally affiliated with a CAFS member.

ARTICLE IV - Roles and Responsibilities

- Center Director
 - o Reports annual operations and research budget to IAB
 - o Assist the Center Assessment Coordinator to complete necessary annual evaluation requirements set by the National Science Foundation
 - o Make final allocation of CAFS research funds to member universities
 - o Coordinate with the IAB Executive Committee to address any center business
 - o Address any potential administrative issues, concerns, or conflicts regarding the activities of research and reporting
 - o Organize and moderate annual IAB meetings
 - o Ensure adherence to IAB expectations and standards for the center
 - o Communicate center activities to National Science Foundation, IAB, and other key stakeholders
- Site Directors
 - o Serve as a liaison between CAFS and the appropriate academic units of their member universities
 - o Authorize the use of membership fees by the Project Scientist in support of CAFS research
 - o Ensure site's adherence to CAFS bylaws
 - o Annually report site activities to CAFS Center Director
 - o Attend and participate in annual IAB meetings
 - o Complete all necessary and required National Science Foundation reporting
 - o Recruit faculty, graduate students, and new members for participation in CAFS
 - o Will select an individual to succeed as Center or Site Director under various unforeseen circumstances (departures, health reasons, retirements, performance, etc.)
- Project Scientists
 - o Manage approved CAFS research projects

- o Provide and present a project proposal with technical research objectives and milestones
- o Annually report progress or final outcomes to Site Directors
- o Mentor any advised undergraduate/graduate student and post-doctorate researcher associated with the project
- o Maintain fiscal responsibility for the approved budget
- Academic Leadership Team and IAB
 - o Define the mission, objectives, and guiding principles of CAFS
 - o Recruit new members
 - o Maintain and periodically update the bylaws governing the IAB
 - o Maintain and periodically update the CAFS Strategic Plan that governs administration of CAFS
 - o Define the research needs and priorities for the expenditure of funds contributed by CAFS members
 - o Help to develop and maintain base funding for CAFS, including recruitment of new members
 - o Review all proposals for research projects and render a decision about funding and/or in-kind support for proposed projects
 - o Review annual research and administration budgets presented by CAFS Director and Staff
 - o Provide assistance, as necessary, to CAFS Project Scientists in implementing Approved Research Projects, identifying and securing opportunities for direct cooperation and in-kind contributions from IAB members' organizations
 - o Periodically review progress of Approved Research Projects and in cooperation with CAFS Director, ensure that results from Approved Research Projects are delivered in a timely manner
 - o In cooperation with CAFS Director and Project Scientists, ensure research results from Approved Research Projects are disseminated to all CAFS members in a timely and efficient manner
 - o Provide CAFS Administrative Staff with contact information of personnel in their organization for the purpose of disseminating CAFS research results
 - o Interface with
- IAB Executive Committee (EC)
 - o Shall be composed of CAFS Director and an IAB member from each site
 - o Chairperson and Vice Chairperson will be selected by the IAB at designated IAB meetings and shall serve for four-years
 - o EC members will be appointed at designated IAB annual meetings and shall serve for four years
 - o A new slate of appointees shall be presented to the IAB for approval at IAB meeting at four-year intervals
 - o EC will advise, assist, and approve all administrative and policy matters affecting the functioning of CAFS
 - o A CAFS Staff member may attend as a recorder, if so desired by Chairperson
 - o Shall meet at the call of the Chairperson
 - o Promote and publicize CAFS accomplishments to legislators, policy makers,

and general public

- Academic Policy Committee
 - o Shall be composed of one representative from each university site that has a key administrative role linked to CAFS (e.g., Vice President of Research, Dean, Associate Dean of Research, Vice Dean of Innovation, Department Chair)
 - o Shall meet at the call of the Center Director and work directly with them on any administrative matters related to CAFS
 - o Manage conflict of interest or personnel performance issues within both the Center and Site
 - o Ensure full compliance with NSF policy and procedures
 - o Annual review and formally endorse center bylaws
 - o Administratively support center activities and address potential membership issues
 - o In conjunction with the Center Director, investigate and resolve any instances of conflict of interest as outlined in ARTICLE XIII. If the conflict of interest involves the Center Director, the committee shall work with the remaining members of the Academic Leadership Team

ARTICLE V – Membership and Voting

Any entity can become a member of CAFS after signing the membership agreement and paying the membership fee, which will be used to support center research activities. CAFS membership has three levels with the following fees, voting rights, and intellectual property access:

Membership Type	Membership Fee	Vote	IP Property Access
Full	\$25,000/yr	10 votes per membership	Yes
Associate	\$12,500/yr	5 votes per membership	Upon Approval
Observer	In-kind (<\$10,000k)	0	No

Members may contribute dollars in excess of two memberships; however, votes will be capped at a maximum of 20 per member. Membership fees assessed must be an integral multiple of either full or associate memberships. Signed membership agreements must reflect the designated annual payment.

ARTICLE VI – Research Project Selection Procedure

CAFS research projects are conducted by students (undergraduate, graduate, and/or postdoctoral), technical staff, and faculty at one or more of the participating universities. Each funded project selected by the IAB will have a minimum of one mentor or technical sponsor from a member institution.

Participation of researchers from underrepresented groups such as women, persons with disabilities, underrepresented minorities in science, technology, engineering, and mathematics (STEM), veterans, and persons from economically disadvantaged backgrounds is strongly encouraged.

Proposed new and ongoing projects are reviewed semi-annually by the IAB. All center members may participate in the selection and evaluation of research projects. The Center will only consider research projects that are not a duplicate of, or substantially similar to, federal awards received by researchers participating in the Center's activities. In addition, all research projects should be consistent with policies outlined in the approved bylaws, consistent with IAB priorities, and strategically aligned with the center technology roadmap.

The Center will use a priority-driven ranking mechanism by which the IAB can recommend funding (a voting method that allows one IAB Member to independently fully fund its project(s) of choice is viewed as supporting contract work and is disallowed under the IUCRC framework). Each IAB member is allocated votes based on their membership level with which to influence project selection and resource allocation priorities. Full membership is allocated 10 votes, while Associate membership is allocated 5 votes. Per NSF policy, the maximum number of votes per member is 20, which is equivalent to 2 Full memberships. Votes may be distributed across sites and projects in any manner the member selects, from all votes on one project to some votes on many or all projects. Projects with the most votes will be selected for funding irrespective of center site. Project budgets may be adjusted annually on the basis of available funds and IAB approval.

Members will regularly propose and prioritize general industry-oriented research topics of interest for consideration. A portfolio of relevant research topics will be compiled based on the interest of the members. These research topics will be posted on a secure website and will form the basis for cooperative discussions among the faculty and the members. Each participating university will develop a set of pre-proposals consistent with the interest of the members and the mission of the center, which will be posted on a secure website prior to the IAB meeting and faculty/student teams will discuss them with IAB members at the meeting. Formal feedback will be provided on each pre-proposal and the Project Scientist allowed to respond. Pre-proposals can be presented to the IAB at any time but will be primarily focused on at the annual June IAB meeting.

The minimum level of collaborative member interest in a project for it to be considered supportable is at least 5 Full members and majority of the available votes. To meet the requirements of a "collaborative" project, each approved research project must include collaborators from at least three universities and have in-kind support or endorsement from a minimum of three members. Unless supplemental in nature or have prior IAB formal approval, all future projects will be collaborative.

Voting will be conducted anonymously and electronically after the annual IAB meeting in June. Within 60 days following the IAB meeting, the outcome of the

votes will be communicated to Project Scientist, Site Directors, and the IAB. A member who is unable to attend a meeting may appoint an alternate representative for that meeting; the Center Director is to be informed of who the alternate will be prior to the meeting.

ARTICLE VII – Meetings

The IAB will meet bi-annually, generally in the early summer (June) and late fall. One meeting each year will be in-person (if possible) at a rotating location hosted by one of the CAFS sites. The Center Director or IAB Executive Chair may call additional meetings as needed. A quorum of the IAB will be 51% of voting member organizations. A non-member may attend one meeting as long as they have a signed nondisclosure agreement (Appendix D – Nondisclosure Agreement). The non-member will have no rights, such as voting or access to reports. The Center Director will notify the IAB one week prior to a meeting, by email, of possible guests, including names, titles, and affiliation. Prospective center members will be considered a guest and need to follow the above requirements until membership contributed are received in full.

Meeting agendas will be provided at least two weeks in advance of each meeting. Minutes for open and closed IAB sessions will be taken and distributed to the IAB and center Assessment Coordinator after the meeting. All documents will be supplied as PDF files and marked confidential. Center meetings are closed to the public because proprietary information will be discussed. Attendance to IAB meetings is limited to faculty, staff, postdoctoral fellows, and students affiliated with the Center; representatives of Center members; the NSF-appointed Assessment Coordinator; and other NSF personnel. Prospective members and university affiliates may attend by invitation of the Center Director and may attend a maximum of two IAB meetings.

Standard technical reports and peer-reviewed manuscripts will be published and distributed to the IAB by the Center Director. They may be available in standard paper format or electronically by accessing a secure website maintained by CAFS. Intellectual property rights are in accordance with the University Memorandum of Understanding and Industry Agreement given in Appendices B and C.

ARTICLE VIII – Reporting, Publications, and Data Management

The Center Director shall provide an annual report to the members and the NSF. This report will be available in PDF online at a secure website. For each project funded within CAFS, the Project Scientist shall provide a project description with technical objectives and milestones to the members at the beginning of the project. For the duration of the Center-funded project, the Project Scientist will annually provide either progress or final reports to the Center Director and IAB. Formal progress and final report project presentations will be given at scheduled IAB meetings.

Data management related to any CAFS project (e.g., sharing and dissemination of data, software, and artifacts within and outside of the IUCRC) will adhere to the

relevant statements provided in Appendices B and C, particularly when potential intellectual property is involved. Notification and prior written approval of the Center Director and Chair of the IAB EC is required for any data sharing with entities outside of CAFS.

ARTICLE IX - Parliamentary Procedures

The latest edition of Robert's Rules of Order Revisited (see Appendix E for synopsis) shall govern all center deliberations and decisions.

ARTICLE X - Governance

All policies, procedures, rules, guidelines, and other matters that govern the administration of CAFS shall be described in a published CAFS Bylaws that will be revised periodically by the Director's Board and IAB through a majority vote. The current version of the CAFS Bylaws will be made available on the public portion of the center's web page.

ARTICLE XI - Amendments

Proposed amendments to these bylaws must be offered in writing to the Center Director, which must be provided to the IAB Executive Committee and IAB at least two weeks before the next scheduled IAB meeting. The Center Director will then read the amendment for action at that meeting. Ratification of amendments shall require acceptance by a majority of the IAB Executive Committee and voting members of the IAB.

ARTICLE XII - Additional Financial Contributions

Any member may elect to make additional financial contributions (through direct financial or in-kind contributions) to CAFS for support of individual research projects that have been formally approved by the IAB. These additional contributions can only be used to support additional investigations or particular aspects of an IAB approved research project desired by one or more members and approval followed the process outlined in ARTICLE VI.

Additional contributions also may be sought from members when the financial requirements for proposed projects exceed the capability of CAFS to provide support from general operating funds. These solicitations will be made as part of the normal funding approval process at IAB annual meetings. Any additional direct financial or in-kind contributions made by a member will be considered above and beyond the membership requirements. The same rules and regulations that govern acceptance of annual contributions will apply to any additional financial contributions and will be reflected in the center's budget.

ARTICLE XIII - Conflict of Interest

A consistent conflict of interest policy will be implemented for CAFS to address companies or entities for which: (1) a researcher involved in the Center is the

founder, president, a key officer or a majority shareholder; or (2) the organization is in any way financially affiliated with any of the universities that are part of the Center (e.g., university foundation, university subsidiary).

The purpose of this conflict of interest policy is to protect the interests of CAFS. In the regular course of Center proceedings, CAFS participants may have the opportunity to advance their own personal interests with or against the interests of CAFS. Acting in such a manner is unacceptable and any party who acts outside of the best interests of CAFS may be prohibited from participation in Center activities.

All CAFS participants are obligated to disclose any known or potential conflicts of interest as soon as they arise. When a possible conflict of interest arises, the CAFS Director and Executive Committee will collect all pertinent information and may question any concerned parties. If it is determined that a conflict exists, steps will be taken to address the conflict. If no conflict exists, the inquiry may be documented but no further action will be taken.

When an actual conflict of interest is found, any decisions and outcomes that may have been affected will be reviewed retroactively. All parties will be notified and an investigation will also be conducted by the Center Director to determine the extent of the conflict and the intentions of the parties involved.

ARTICLE XIV - Site Performance and Membership Requirements

To maintain involvement with CAFS, all sites and members must adhere to the policies and procedures of these bylaws. In addition, university sites must meet all NSF solicitation requirements including submission of annual reports and documentation of membership contributions, including those that exceed minimum membership requirements. Currently, NSF annual membership requirements for CAFS are at least 5 Full memberships and >\$250,000 in total membership contributions.

If a CAFS site is not contributing substantially on an annual basis to CAFS, based on the number of projects and amount of Center funding it receives from working on IAB-related projects, the Center Director and/or NSF may initiate appropriate corrective actions. This may include limiting future proposals, withholding future continuing grant increments for underperforming sites, and/or adjusting the end date of their awards.

Appendix A - Current CAFS Membership List by Site (Updated August 2021)

IAB Member	CAFS Site							Total	Votes
	NCSU	OSU	PU	UGA	UI	UM	UW		
American Forest Management	\$37,500	-	-	-	-	-	-	\$37,500	15
Arbor America	-	-	25,000	-	-	-	-	\$25,000	10
Arbor Gen	-	-	-	25,000	-	-	-	\$25,000	10
BBC Land LLC	-	-	-	-	-	\$50,000	-	\$50,000	20
Bureau of Land Management	-	-	-	-	-	-	\$75,000	\$75,000	20
Campbell Global	\$37,500	\$12,500	-	\$25,000	-	-	\$12,500	\$87,500	20
Cascade Timber Consulting	-	\$12,500	-	-	-	-	\$12,500	\$25,000	10
CatchMark Timber Trust	-	-	-	\$25,000	-	-	-	\$25,000	10
Clayton Lake Woodlands Holding, LLC	-	-	-	-	-	\$37,500	-	\$37,500	15
Domain Timber Advisors	-	-	-	\$25,000	-	-	-	\$25,000	10
F&W Forestry Services	-	-	-	\$12,500	-	-	-	\$12,500	5
Forest Investment Associates	\$37,500	-	-	\$25,000	-	-	-	\$62,500	20
Forest Resource Consultants	-	-	-	\$12,500	-	-	-	\$12,500	5
Four Rivers Land & Timber	-	-	-	\$25,000	-	-	-	\$25,000	10
Fred M. van Eck Foundation	-	-	\$125,000	-	-	-	-	125,000	20
GMO Threshold Timber	-	-	-	\$25,000	-	-	-	\$25,000	10
Green Diamond Resource	-	\$25,000	-	\$25,000	-	-	\$25,000	\$75,000	20
Greenwood Resources	-	-	-	\$12,500	-	-	-	\$12,500	5
Hāloa 'Aina	-	-	\$25,000	-	-	-	-	\$25,000	10
Hancock Forest Management	\$37,500	\$25,000	-	\$25,000	\$75,000	-	\$25,000	\$187,500	20
Idaho Dept of Lands	-	-	-	-	\$50,000	-	-	\$50,000	20
IFCO	-	-	-	\$12,500	-	-	-	\$12,500	5
Indiana Division of Forestry	-	-	\$25,000	-	-	-	-	\$25,000	10
Indiana Division of Reclamation	-	-	\$25,000	-	-	-	-	\$25,000	10
Indiana Hardwood Lumberman's Association	-	-	\$25,000	-	-	-	-	\$25,000	10
Inland Empire Paper Co	-	-	-	-	\$12,500	-	-	\$12,500	5
International Paper	-	-	-	\$12,500	-	-	-	\$12,500	5
J.D. Irving	-	-	-	-	-	\$62,500	-	\$62,500	20

IAB Member	CAFS Site							Total	Votes
	NCSU	OSU	PU	UGA	UI	UM	UW		
Lewis & Clark Tree Farms	-	-	-	-	-	-	\$12,500	\$12,500	5
Lone Rock Timber Co.	-	\$12,500	-	-	-	-	\$12,500	\$25,000	10
Molpus Timberlands Management	-	-	-	\$25,000	\$25,000	-	-	\$50,000	20
Montana DNRC	-	-	-	-	\$12,500	-	-	\$12,500	5
NCX	-	-	-	\$12,500	-	-	-	\$12,500	5
Olympic Resource Management (ORM Inc)	-	-	-	-	-	-	\$12,500	\$12,500	5
Oregon Department of Forestry	-	\$25,000	-	-	-	-	\$37,500	\$62,500	20
Port Blakely Tree Farms	-	\$12,500	-	-	-	-	\$12,500	\$25,000	10
Potlatch Corporation	-	-	-	\$25,000	\$137,500	-	-	\$162,500	20
Rayonier	\$37,500	\$25,000	-	\$37,500	-	-	\$25,000	\$125,000	20
Resource Management Services	-	-	-	\$25,000	-	-	-	\$25,000	10
Roseburg Forest Products	-	\$25,000	-	\$12,500	-	-	\$25,000	\$62,500	20
SAPPI	-	-	-	-	-	\$25,000	-	\$25,000	10
Seneca Jones Timber Co.	-	\$12,500	-	-	-	-	-	\$12,500	5
Seven Islands Land Company	-	-	-	-	-	\$37,500	-	\$37,500	15
Starker Forests	-	\$12,500	-	-	-	-	-	\$12,500	5
Stimson Lumber Company	-	\$12,500	-	-	\$37,500	-	\$12,500	\$62,500	20
Superior Pine Products Company	-	-	-	\$25,000	-	-	-	\$25,000	10
Timber Investment Resources	\$37,500	-	-	\$25,000	-	-	-	\$62,500	20
USDA Forest Service Research	-	-	\$50,000	-	\$25,000	-	-	\$75,000	20
USDI Bureau of Land Management	-	-	-	-	\$62,500	-	-	\$62,500	20
Wagner Forest Management	-	-	-	-	-	\$50,000	-	\$50,000	20
Washington State Dept. of Natural Resources	-	\$25,000	-	-	\$37,500	-	\$50,000	\$112,500	20
Westervelt	-	-	-	\$25,000	-	-	-	\$25,000	10
Weyerhaeuser	\$37,500	\$37,500	-	\$37,500	-	\$37,500	\$75,000	\$225,00	20
Total	\$262,500	\$275,000	\$300,000	\$537,500	\$475,000	\$300,000	\$425,000	\$2,575,000	

Appendix B - University Memorandum of Understanding

Inter-Institutional Memorandum of Understanding Between Center for Advanced Forestry Systems and University XXXXXXX

This Inter-Institutional Agreement ("Agreement") is effective Xth day of X, 202X, by and among the parties that have executed this Agreement by signature of their authorized representatives appearing below and such other non-profit universities upon mutual agreement of all current undersigned institutions, to be known collectively hereinafter as "INSTITUTIONS" or individually as an "INSTITUTION."

WHEREAS, the parties to this Agreement have each received or will be receiving funding to support the National Science Foundation Industry/University Cooperative Research Center for Advanced Forestry Systems (hereinafter referred to as "CENTER") in its efforts to perform research to create concepts, methods and tools for the proposed area of science; to stimulate industry innovations; and to provide institutions with strengthened educational and research capabilities.

WHEREAS, the activities of CENTER are funded by (i) the National Science Foundation (hereinafter referred to as `NSF'), (ii) members from industry (hereinafter referred to as `MEMBERS'), (iii) direct or indirect budgetary support from the INSTITUTIONS and (iv) other funds that may be received from time to time.

WHEREAS, INSTITUTIONS are desirous of formalizing certain agreements between them with respect to the subject matter contained herein.

NOW THEREFORE, for and in consideration of the mutual promises and covenants herein contained and intending to be legally bound, INSTITUTIONS hereto agree as follows:

1. Center Governance.

a. The CENTER will have a common Industrial Advisory Board (IAB) composed of a representative of each MEMBER and each INSTITUTION; and a Research Advisory Committee. Each INSTITUTION shall use a common format for its membership agreement to obtain funding from MEMBERS, which shall be substantially in the form of the Center for Advanced Forestry Systems Membership Agreement as set forth in Schedule A. INSTITUTION may make changes to the agreement as set forth in Schedule A without consent of the INSTITUTIONS or NSF to the extent such changes do not affect the rights of MEMBERS therein. Any other changes made to the agreement as set forth in Schedule A must be submitted in writing and agreed upon by all INSTITUTIONS and NSF.

b. In accordance with the NSF award, the Center Director will be from University of Maine. Each INSTITUTION shall select a Site Director in accordance with the policies and procedures of each INSTITUTION.

2. Center Funding.

a. Each INSTITUTION will receive its own funds directly from NSF, will be responsible for recruiting its own MEMBERS, and will retain membership fees collected from its MEMBERS. INSTITUTION may be directed by IAB to allocate some funds to inter-institutional collaborative research among one or more other INSTITUTIONS. The expectation is that inter-institutional collaborative research projects may constitute approximately <10% of center funds on average, annually.

b. INSTITUTIONS shall jointly pay (in equal shares) for major promotional Center materials, such as brochures, provided however, that each INSTITUTION'S obligation hereunder shall only apply to promotional materials that have been produced with the advance written approval of all participating INSTITUTIONS.

c. Within each INSTITUTION, a separate internal account shall be set up for the operation of the Center. The Director and each Site Director must provide annual budgets based on expected income from all sources to the respective INSTITUTIONS. These budgets should be made available to the Center Director, the Site Director of the Center and the responsible university officials of such Institution by July 1 of each year.

3. Ownership and Administration of Intellectual Property. "Invention" means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code or which may be copyright protected under Title 17 of the United States Code) that results from work sponsored by CENTER funds developed by the INSTITUTION or INSTITUTIONS. There is no expectation of Inventions arising out of this Agreement or work sponsored by CENTER funds developed by the INSTITUTION or INSTITUTIONS. However, in the event Inventions are made, all rights to Inventions, improvements and/or discoveries, whether patentable or copyrightable or not, made by the employees of

INSTITUTION, UM, or MEMBER shall respectively belong to INSTITUTION, UM, or MEMBER and no other party to this Agreement shall have any right of ownership or interest in such Inventions unless otherwise agreed or as provided in this Section 3. Joint inventions shall be jointly owned by the parties and title to all patents issued thereon shall be jointly held. The parties will operate together in good faith and enter into all agreements necessary to manage, control and commercialize joint inventions.

4. License to Use Intellectual Property for Internal Use. With respect to INSTITUTION generated Intellectual Property belonging solely to an INSTITUTION, such INSTITUTION agrees to and does hereby grant to the other INSTITUTIONS, subject to the terms of this Agreement, a nonexclusive, nontransferable, irrevocable, royalty free license for internal, educational and noncommercial research purposes only (without the right to sublicense). INSTITUTIONS acknowledge that a separate license agreement may be required by the licensing INSTITUTION in order to convey the rights granted by this paragraph.

5. Publication of Joint INSTITUTION Intellectual Property. Each INSTITUTION with an ownership interest in Joint INSTITUTION Intellectual Property shall have the right to publish research resulting from development of such Intellectual Property. The INSTITUTION desiring to publish such research results shall submit a draft of any such proposed publication to the other INSTITUTION(S) holding ownership interests at least twenty (20) days prior to the submission of the research results for publication. The non-publishing INSTITUTION(S) shall have the right to delay any publication involving its Joint INSTITUTION Intellectual Property for a period of not more than sixty (60) days for the purposes of obtaining patent protection by giving the publishing INSTITUTION written notice before the end of twenty (20) days notice period provided herein. For the purposes of this Agreement, cataloging and placing reports of research results in the library of any INSTITUTION where such results are available to third parties shall be deemed to be a "publication."

6. Confidential Information. a. "CONFIDENTIAL INFORMATION" shall mean any (1) any and all information, know-how or data disclosed or in written, graphic, or tangible form (or reduced to such form within 3-days of disclosure), (2) that is clearly marked with a stamp or legend as being proprietary or confidential information, and (3) is provided by one INSTITUTION (hereinafter referred to as "PROVIDER") to another INSTITUTION (hereinafter referred to as "RECIPIENT") about the research activities of the CENTER. Confidential Information does not include information:: i. that is or becomes generally known or available to the public without breach of this Agreement; ii. that is known to RECIPIENT at the time of disclosure, as evidenced by written records of RECIPIENT; iii. that is independently developed by RECIPIENT, as evidenced by written records of RECIPIENT; or iv. that is disclosed to RECIPIENT in good faith by a third party who has an independent right to such subject matter and information.

b. Should RECIPIENT be required by law to disclose CONFIDENTIAL INFORMATION, RECIPIENT shall immediately inform PROVIDER in writing and cooperate with PROVIDER in responding to such requirement.

c. RECIPIENT shall hold in confidence and not disclose any and all CONFIDENTIAL INFORMATION to any third party, and shall use CONFIDENTIAL INFORMATION solely for activities of the CENTER. RECIPIENT shall have the right to disclose CONFIDENTIAL INFORMATION to employees or agents of its organization ("Representatives") provided that RECIPIENT causes such Representatives to be bound to the terms of this Agreement.

d. Unless otherwise specified in writing, all CONFIDENTIAL INFORMATION remains PROVIDER property. Upon request of PROVIDER, RECIPIENT shall return or destroy all Confidential Information received from PROVIDER, except for one copy, which PROVIDER may keep solely to monitor its obligations under this Agreement.

e. All CONFIDENTIAL INFORMATION shall be held confidential by RECIPIENT for three (3) years after such information is disclosed to RECIPIENT. At the end of the three (3) year period, the CONFIDENTIAL INFORMATION shall be destroyed unless the PROVIDER requests return of such information prior to its destruction.

f. Nothing contained in this Agreement shall be construed as an obligation to enter into any further agreement concerning the CENTER or CONFIDENTIAL INFORMATION, or as a grant of a license to the CONFIDENTIAL INFORMATION or to any patent or patent application existing now or in the future.

8. Research Results, Reports.

a. INSTITUTION Members engaged in research shall provide the Executive Committee and the IPAB with interim reports detailing preliminary research results and the status and progress of the research as requested by the Executive Committee. INSTITUTION Members engaged in core research shall also provide the Executive Committee and the IPAB a final report summarizing the research results at the conclusion of a core research project. The interim reports and final reports shall together be referred to herein as "Reports".

b. INSTITUTION Members shall have the right to use Research Results disclosed to them in Reports for any lawful purpose, and are hereby granted a royalty-free, nontransferable, non-exclusive right to copy, reproduce and distribute said Reports, provided that: (a) a INSTITUTION Member shall need to obtain a license to use Research Results from the Center Member(s) who generated such Research Results if such use would infringe any copyright or any claim of a patent application or issued patent owned by the INSTITUTION Member(s) that authored the Report; (b) INSTITUTION Members shall maintain the Research Results confidentially pending publication in accordance with Section 4.6; (c) INSTITUTION Members may not charge fees for said research reports, use said research reports for advertising or promotional activities, or alter or modify said research reports without the prior written permission of the INSTITUTION Member(s) who authored the Report.

9. Use of Name and Logo. Unless specified in writing, No Center INSTITUTION or MEMBER shall use the name, logo, seal, trademark, or service mark (including any adaptation of them) of any other CENTER MEMBER or INSTITUTION, including any school, organization, employee, student or representative thereof, without the prior written consent of that CENTER's authorized representative. Notwithstanding the foregoing, member INSTITUTIONS may use the name of the CENTER in a non-misleading, factual manner to state CENTER INSTITUTIONS participation in the CENTER without further consent.

10. Membership in the CENTER does not preclude any INSTITUTION from entering into separate research agreements with Industry MEMBERS who participate in the Center.

11. Amendment.

a. This Agreement may not be amended or modified except by the execution of a written instrument executed by all of the parties hereto.

b. In the event that any of the terms, provisions, or covenants contained in this Agreement are held to be partially or wholly invalid or unenforceable for any reason whatsoever, such holding shall not affect, alter, modify, or impair in any manner whatsoever any of the other terms, provisions, or covenants not held to be partially or wholly invalid or unenforceable.

12. Term. The term of this Agreement will be from the date first written above and shall continue for the duration of the CENTER contract with NSF. INSTITUTION may terminate its membership by providing written notice of its intent to terminate to the Executive Committee and the Center Director according to the terms of the NSF funding agreement.

13. Counterparts. This Agreement and Schedule A hereto may be executed in any number of counterparts and by any party on separate counterpart, each of which shall be deemed an original but all of which together shall constitute one and the same instrument.

14. Entire Agreement. The Agreement is the entire agreement between the parties regarding the subject matter of this Agreement and it supersedes any prior agreements, understanding or discussions with respect to such subject matter.

IN WITNESS WHEREOF, INSTITUTIONS hereto have caused this Agreement to be duly executed by their duly authorized officers as of the day and year set forth next to each signature

UNIVERSITY XXXXXXXXXXXXXXX

By:

Name:

Title:

Date:

UNIVERSITY OF MAINE

By:

Name: Christopher Boynton

Title: Director of the Office of Research Administration

Date:

Appendix C - Industrial Membership Agreement

Center for Advanced Forestry Systems IUCRC Membership Agreement

This Agreement is made on August 26, 2021 by and between the Universities listed in Membership Agreement Appendix A (hereinafter collectively called "UNIVERSITIES") and XXXXXX (hereinafter called "MEMBER") for the Center for Advanced Forestry Systems (CAFS), comprised of UNIVERSITIES funded by the Industry-University Cooperative Research Center (IUCRC) Program of the National Science Foundation.

WHEREAS, the parties to this Agreement intend to join together in a cooperative effort to support an Industry-University Cooperative Research Center for Advanced Forestry Systems (hereinafter called "CENTER") at the UNIVERSITIES to perform research, the parties hereby agree to the following terms and conditions:

A. CENTER will be operated as a consortium integrating industry, government, and academia. The industrial community includes but is not limited to major corporations, middle market companies, small businesses and startups. Public participants may range from local governments to divisions of federal agencies.

B. MEMBER agrees to contribute \$XX,XXX annually in support of the CENTER and thereby becomes a member. Membership fees are not refundable.

C. There will be an Industry Advisory Board (IAB) composed of one designated representative from each MEMBER. MEMBER shall designate a single representative to the Board, and shall notify UNIVERSITIES of the designation. MEMBER retains the right to change the designated representative at any time, provided MEMBER notifies the UNIVERSITIES of the change. This Board primarily makes recommendations on (a) the research projects to be carried out by CENTER, (b) changes in the bylaws, and (c) other supporting activities at the CENTER.

D. UNIVERSITIES reserve the right for their faculty, research staff, and students involved in CENTER research to publish the results of any research performed by CENTER. MEMBER, however, shall have the opportunity to review any publication containing results of the research program of CENTER prior to publication and shall have the right to request the CENTER for a delay in publication for a period not to exceed 90 day(s)/year(s) from the date of submission to MEMBER, provided that MEMBER makes a written request and justification for such delay within 90 days from the date the proposed publication is submitted by certified mail to MEMBER.

E. All intellectual property (IP) derived from inventions conceived or first actually reduced to practice within the CENTER shall belong to one or more of the UNIVERSITIES which own the said IP. UNIVERSITIES will take such action as is necessary to ensure that it/they has/have ownership of all patents developed from this work and shall be responsible for ensuring compliance with chapter 18 of title 35 of the United States Code, commonly called the Bayh-Dole Act.

F. UNIVERSITIES agree that all CENTER members are entitled to a nonexclusive royalty-free license. MEMBERS that wish to exercise rights to a royalty-free license agree to pay patent application and maintenance costs.

G. MEMBER shall be entitled to a nonexclusive, royalty-free license to all software developed by CENTER. MEMBER will have the right to enhance and to re-market enhanced or unenhanced software with royalties due to CENTER to be negotiated, based on the worth of the initial software, but not to exceed 10% of a fair sale price of the enhanced software product sold or licensed by MEMBER.

H. Any royalties and fees received by UNIVERSITIES under this Agreement, over and above expenses incurred, will be distributed according to the universities' royalty distribution policies, with the understanding that 33% will accrue to the CENTER operating account, or to the relevant UNIVERSITIES involved in the royalty/fee agreements in the event that the CENTER is no longer in operation.

I. This membership agreement remains valid until this Agreement is terminated in writing by:

- 1) The MEMBER giving University of Maine 90 days written notice prior to the termination date; or
- 2) UNIVERSITIES giving MEMBER 90 days written notice prior to the termination date.

J. An individual UNIVERSITY may withdraw from the CENTER and no longer be obligated by this agreement, by giving MEMBER and the other UNIVERSITIES 90 days written notice prior to the withdrawal date from the CENTER. If an individual UNIVERSITY withdraws, this agreement remains in effect between the MEMBER and the other UNIVERSITIES.

K. An individual UNIVERSITY may join the CENTER and be obligated by this agreement by signing this agreement.

Non-governmental Entities:

L. Neither party is assuming any liability for the actions or omissions of the other party. Each party will forebear against making any claim against the other party for all claims, liability, injury, damage or cost based upon injury or death to persons, or loss of, damage to, or loss of use of property that arises out of the performance of this agreement to the extent that such claims, liability, damage, cost or expense result from the negligence of that party's own agents or employees.

Governmental Entities:

L. Each Party hereby waives any claim against the other Party, employees of the other Party, the other Party's Related Entities (including but not limited to contractors and subcontractors at any tier, grantees, investigators, customers, users, and their contractors or subcontractor at any tier), or employees of the other Party's Related Entities for any injury to, or death of, the waiving Party's employees or the employees of its Related Entities, or for damage to, or loss of, the waiving Party's property or the property of its Related Entities arising from or related to activities conducted under this Agreement, whether such injury, death, damage, or loss arises through negligence or otherwise, except in the case of gross negligence or willful misconduct.

In witness whereof, the parties have caused this Agreement to be executed by their duly authorized representatives:

MEMBER Authorized Officer: MEMBER name: Address: Date: August 26, 2021	Authorized Officer Signature
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Membership Agreement Appendix A: Authorized Signatories of Center for Advanced Forestry Systems (CAFS)

LEAD UNIVERSITY	Authorized Officer Signature
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<p>Authorized Officer: Christopher Boynton UNIVERSITY name: University of Maine Address: 5717 Corbett Hall Date:</p>	
<p>PARTNER UNIVERSITY 1</p> <p>Authorized Officer: UNIVERSITY name: North Carolina State University Address: Date:</p>	Authorized Officer Signature
<p>PARTNER UNIVERSITY 2</p> <p>Authorized Officer: UNIVERSITY name: Oregon State University Address: Date:</p>	Authorized Officer Signature
<p>PARTNER UNIVERSITY 3</p> <p>Authorized Officer: UNIVERSITY name: Purdue University Address: Date:</p>	Authorized Officer Signature
<p>PARTNER UNIVERSITY 4</p> <p>Authorized Officer: UNIVERSITY name: University of Georgia Address: Date:</p>	Authorized Officer Signature
<p>PARTNER UNIVERSITY 5</p> <p>Authorized Officer: UNIVERSITY name: University of Idaho Address: Date:</p>	Authorized Officer Signature
<p>PARTNER UNIVERSITY 6</p> <p>Authorized Officer: UNIVERSITY name: University of Washington Address: Date:</p>	Authorized Officer Signature
<p>PARTNER UNIVERSITY 7</p> <p>Authorized Officer: UNIVERSITY name: Address: Date:</p>	Authorized Officer Signature

Schedule A – Center for Advanced Forestry Systems Membership Agreement

This Agreement is made on __[INSERT date]__ by and between the Universities listed in Appendix A, (hereinafter collectively called "UNIVERSITIES") and _____ (hereinafter called "MEMBER") for the (INSERT TITLE OF CENTER), comprised of UNIVERSITIES funded by the Industry–University Cooperative Research Center (IUCRC) Program of the National Science Foundation.

WHEREAS, the parties to this Agreement intend to join together in a cooperative effort to support an Industry–University Cooperative Research Center for Advanced Forestry Systems (hereinafter called "CENTER") at the UNIVERSITIES to perform research, the parties hereby agree to the following terms and conditions:

A. CENTER will be operated as a consortium integrating industry, government, and academia. The industrial community includes but is not limited to major corporations, middle market companies, small businesses and startups. Public participants may range from local governments to divisions of federal agencies.

B. MEMBER agrees to contribute _____ annually in support of the CENTER and thereby becomes a member. Membership fees are not refundable.

C. There will be an Industry Advisory Board (IAB) composed of one designated representative from each member. MEMBER shall designate a single representative to the Board, and shall notify UNIVERSITIES of the designation. MEMBER retains the right to change the designated representative at any time, provided MEMBER notifies the UNIVERSITIES of the change. This Board primarily makes recommendations on (a) the research projects to be carried out by CENTER, (b) changes in the bylaws, and (c) other supporting activities at the CENTER.

D. UNIVERSITIES reserve the right for their faculty, research staff, and students involved in Center research to publish the results of any research performed by CENTER.

E. All intellectual property (IP) derived from inventions conceived or first actually reduced to practice within the CENTER shall belong to one or more of the UNIVERSITIES which own the said IP. UNIVERSITIES will take such action as is necessary to ensure that it/they has/have ownership of all patents developed from this work and shall be responsible for ensuring compliance with chapter 18 of title 35 of the United States Code, commonly called the Bayh-Dole Act.

F. UNIVERSITIES agree that all CENTER members are entitled to a nonexclusive royalty-free license. MEMBERS that wish to exercise rights to a royalty-free license agree to pay patent application and maintenance costs.

G. MEMBER shall be entitled to a nonexclusive, royalty-free license to all software developed by CENTER. MEMBER will have the right to enhance and to re-market enhanced or unenhanced software with royalties due to CENTER to be negotiated, based on the worth of the initial software, but not to exceed 10% of a fair sale price of the enhanced software product sold or licensed by MEMBER.

H. Any royalties and fees received by UNIVERSITIES under this Agreement, over and above expenses incurred, will be distributed according to the universities' royalty distribution policies, with the understanding that 33% will accrue to the CENTER operating account, or to the relevant UNIVERSITIES involved in the royalty/fee agreements in the event that the CENTER is no longer in operation.

I. This membership agreement remains valid until this Agreement is terminated in writing by: 1) The MEMBER giving University of Maine, 90 days written notice prior to the termination date; or 2) UNIVERSITIES giving MEMBER 90 days written notice prior to the termination date.

J. An individual UNIVERSITY may withdraw from the CENTER and no longer be obligated by this agreement, by giving MEMBER and the other UNIVERSITIES 90 days written notice prior to the withdrawal date from the CENTER. If an individual UNIVERSITY withdraws, this agreement remains in effect between the MEMBER and the other UNIVERSITIES.

K. An individual UNIVERSITY may join the CENTER and be obligated by this agreement by signing this agreement.

Non-governmental Entities:

L. Neither party is assuming any liability for the actions or omissions of the other party. Each party will forebear against making any claim against the other party for all claims, liability, injury, damage or cost based upon injury or death to persons, or loss of, damage to, or loss of use of property that arises out of the performance of this agreement to the extent that such claims, liability, damage, cost or expense result from the negligence of that party's own agents or employees.

Governmental Entities:

L. Each Party hereby waives any claim against the other Party, employees of the other Party, the other Party's Related Entities (including but not limited to contractors and subcontractors at any tier, grantees, investigators, customers, users, and their contractors or subcontractor at any tier), or employees of the other Party's Related Entities for any injury to, or death of, the waiving Party's employees or the employees of its Related Entities, or for damage to, or loss of, the waiving Party's property or the property of its Related Entities arising from or related to activities conducted under this Agreement, whether such injury, death, damage, or loss arises through negligence or otherwise, except in the case of gross negligence or willful misconduct.

Appendix D - Nondisclosure Agreement

Reference is made to the "Confidentiality Terms" in the Center for Advanced Forestry Systems' (CENTER) University Memorandum of Understanding and Membership Agreement for COMPANY members of the CENTER.

Capitalized terms used herein and not otherwise defined have the respective meanings assigned in those referenced documents.

Whereas the "Purpose of Disclosure" means the COMPANY is being provided a visitor pass for the CENTER meeting held on _____ for the purpose of considering membership in the CENTER.

The undersigned hereby agrees to the terms and conditions of the Confidentiality Agreement and to the designation of the undersigned as a COMPANY thereunder as of the Effective Date specified below.

This agreement may be executed in any number of counterparts and by any party on separate counterpart, each of which shall be deemed an original but all of which together shall constitute one and the same instrument.

By: Authorized Company Official

Name: _____

Title: _____

Company: _____

Effective Date: _____

Contact information for administrative matters:

Appendix E - Brief Synopsis of Robert's Rules of Order Revisited

(Adapted from <https://www.boardeffect.com/blog/roberts-rules-of-order-cheat-sheet/>)

Robert's Rules of Order Revisited is a manual of parliamentary procedure that governs most organizations with boards of directors. In 1876, Henry Martyn Robert adapted the rules and practices of Congress to the needs of non-legislative bodies and wrote them in his book, which is still in use today. The Robert's Rules Association published brief versions of the book in 2005 and 2011. The newest versions have about 700 pages highlighting their complexity and highly detailed nature. The primary basics are given below.

Types of Motions:

- Main Motion: Introduce a new item
- Subsidiary Motion: Change or affect how to handle a main motion (vote on this before main motion)
- Privileged Motion: Urgent or important matter unrelated to pending business
- Incidental Motion: Questions procedure of other motions (must consider before the other motion)
- Motion to Table: Kills a motion
- Motion to Postpone: Delays a vote (can reopen debate on the main motion)

Every Motion Has 6 Steps:

1. Motion: A member rises or raises a hand to signal the chairperson.
2. Second: Another member seconds the motion.
3. Restate motion: The chairperson restates the motion.
4. Debate: The members debate the motion.
5. Vote: The chairperson restates the motion, and then first asks for affirmative votes, and then negative votes.
6. Announce the vote: The chairperson announces the result of the vote and any instructions.

Points of Something

- Point of Order: Draws attention to a breach of rules, improper procedure, breaching of established practices, etc.
- Point of Information: A member may need to bring up an additional point or additional information (in the form of a nondebatable statement) so that the other members can make fully informed votes.
- Point of Inquiry: A member may use point of inquiry to ask for clarification in a report to make better voting decisions.
- Point of Personal Privilege: A member may use point of personal privilege to address the physical comfort of the setting such as temperature or noise. Members may also use it to address the accuracy of published reports or the accuracy of a member's conduct.

General Recommendations

- Follow the agenda to keep the group moving toward its goals.
- Let the group do its own work; don't over command.
- Control the flow of the meeting by recognizing members who ask to speak.
- Let all members speak once before allowing anyone to speak a second time.
- When discussions get off-track, gently guide the group back to the agenda.

- Model courtesy and respect, and insist that others do the same.
- Help to develop the board's skills in parliamentary procedure by properly using motions and points of order.
- Give each speaker your undivided attention.
- Keep an emotional pulse on the discussions.
- Allow a consensus to have the final authority of the group.