



## agInnovation Summer Leadership Business Meeting

Omni Providence Hotel, 1 W Exchange Street, Providence, Rhode Island 02903

Tuesday, July 16, 2024, 8:30 to 11:45 am ET

### Meeting AGENDA (see [NOTES here](#))

Time	Item #	Topic	Presenter	Action Requested
8:30 am	1.0	Chair's Welcome and Introductions	George Smith, FFY24 agInnovation Chair	None
8:40 am	2.0	Approval of <a href="#">March 14 Call Notes</a>	George Smith	Approval by Consensus
8:45 am	3.0	agInnovation Research Roadmap <ul style="list-style-type: none"> <li>Where we are and where we are headed</li> <li>Budget strategy</li> <li>Implementation plan</li> </ul>	George Smith, Jeanette Thurston	For information, discussion
10:15 am	4.0	<a href="#">agConnect Proposal</a>	Rick Rhodes	For information, discussion
10:35 am	5.0	Incoming Chair Report <ul style="list-style-type: none"> <li>Fall Meeting Update</li> <li>Chair's Initiatives</li> </ul>	Steve Lommel, FFY25 agInnovation Chair	For information, discussion
10:50 am	6.0	agInnovation Committee Updates (new information only, 5 min each) <ul style="list-style-type: none"> <li><a href="#">BLC</a></li> <li><a href="#">DCC</a></li> <li><a href="#">Finance</a></li> <li><a href="#">NPGCC</a></li> <li>NRSP-RC</li> <li><a href="#">STC</a></li> </ul>	Committee Chairs	For information
11:10 am	7.0	agInnovation 501(c)(3) Update	Chris Pritsos, Bret Hess	For information, discussion
11:20 am		Open discussion--What is on your mind?/Other Business	All	TBD
11:45 am: Adjourn				

### Upcoming Meetings:

- [Fall 2024 agInnovation Conference](#), September 22-25, 2024, Raleigh, NC
- [APLU Annual Meeting](#), November 10-12, 2024, Orlando, FL

## Meeting NOTES

**Attendees (in-person):** George Smith, Steve Lommel, Gary Thompson, Mary Burrows, Chandra Reddy, Gary Pierzynski, Bret Hess, Katie Chapman, Rochelle Sapp, Ernie Minton, Ben Steffen, Rick Rhodes, Anton Bekkerman, David Leibovitz, Shibu Jose, Faith Peppers, Glenda Humiston, Becky Walsh, Vernon Jones, Mark McGuire, Leslie Edgar, Elizabeth Stulberg, Leslie Parise, Scott Senseman, Buck Vandersteen, Brian Hardin, Suzanne Stluka, Bob Mattive, Jeanette Thurston, Chris Hamilton (recorder)

**Zoom Participants:** Jennifer Tippetts, Shirley Hymon-Parker, Lisa M. Williamson, Jeff Dean, Gregory Goins, Shafiqur Rahman, Cindy Morley, Mike Salassi, Linda Nagel, Lesley Oliver, Greg Cuomo, Troy Runge, Jose U. Toledo, Derek McLean, Shanee Mortley, Margaret Smith, John Yang, Gene Kelly, Donkin, Shawn, Ruth MacDonald, George Criner, Margaret Smith, Dboss, Joleen C Hadrich, Olga Bolden-Tiller, Ruth MacDonald, Ralph Noble, Shanee Mortley, Jeff Dean

### **Zoom Recording Link:**

[https://uwmadison.zoom.us/rec/share/qbcGlr4mIMSdJ2YHBLicMYSKRiI5xkMa6NoQQMEv8RDC27dNlwWvFqXAcAjvtHVY.kZ7tw8WXtim-Ap\\_i](https://uwmadison.zoom.us/rec/share/qbcGlr4mIMSdJ2YHBLicMYSKRiI5xkMa6NoQQMEv8RDC27dNlwWvFqXAcAjvtHVY.kZ7tw8WXtim-Ap_i) ,

Passcode: J4G3^7.@

Item #	Topic	Notes	Action Taken
1.0	Chair's Welcome and Introductions	George Smith, FFY24 agInnovation Chair, welcomed everyone to the meeting and then led instructions around the room.	Chair Smith welcomed everyone to the meeting and then led introductions around the room.
2.0	Approval of <a href="#">March 14 agInnovation Call Notes</a>	Motion to approve by Gary Pierzynski, seconded by Mark McGuire. Approval by consensus.	March 14 notes fully approved as distributed by consensus.
3.0	agInnovation Research Roadmap <ul style="list-style-type: none"><li>Where we are and where we are headed</li><li>Budget strategy</li><li>Implementation plan</li></ul>	George Smith, Jeanette Thurston <ul style="list-style-type: none"><li>Research Roadmap: We wanted to try something new, bold, with a 10-year vision, that resonates with all our stakeholders, not just those involved with Land-grant research and agriculture.</li><li>George reviewed the <a href="#">Research Roadmap slides</a> describing the work of the planning committee thus far.</li><li><a href="#">Three pillars</a> (water resilience, climate solutions, and sustainable food systems) with bold, measurable, but also realistic outcome goals for each, with a cross-</li></ul>	For information, discussion. Please provide written input directly to Jeanette and George ( <a href="mailto:jthurston@ksu.edu">jthurston@ksu.edu</a> and <a href="mailto:smithge7@msu.edu">smithge7@msu.edu</a> )

		<p>cutting outcome goal on education and workforce development overarched each pillar.</p> <ul style="list-style-type: none"> <li>• The team also defined thoughts on what the risk is if we don't reach these goals, or at least make reasonable progress on this effort.</li> <li>• Our federal investment strategy included defining what we need to complete this work successfully: 1% of total federal R&amp;D budget. The goal is to stimulate conversation around this investment proposal.</li> <li>• Next steps for socializing the Roadmap further include several upcoming events for additional feedback.</li> <li>• The implementation strategy proposed will take advantage of existing agInnovation standing committees, such as BLC, STC, communications/CMC, etc.</li> <li>• Group conversation: <ul style="list-style-type: none"> <li>○ Each working group brought materials to experts for additional feedback, metrics, goals, etc.</li> <li>○ Effort will continue after Steve Lommel takes over as the new agInnovation chair.</li> <li>○ Will these be vetted across all agInnovation membership? Concern over EPA compliance statement in the water pillar. We can inform but cannot do any enforcement. How about: <i>Support farmers and land managers to meet regulatory goals.</i></li> <li>○ All affiliated groups, stakeholders, industry should be in alignment and giving the same message. This Roadmap will work hand in hand with BAA Decadal Visioning effort.</li> <li>○ Final timeline for broader stakeholder engagement? Goal is to have a final document by the end of the calendar year (end of 2024).</li> </ul> </li> </ul>	
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		<ul style="list-style-type: none"> <li>○ Plan for stakeholder engagement, who should we socialize this with? We've had many conversations with NGOs, federal agencies, etc., already. Other ideas? Please share your ideas with Jeantte and George. We need to be more creative and tailor our message to meet unique/non-traditional supporters, i.e., food-focused community development groups.</li> <li>○ How are we seeking funds to increase R&amp;D budget for this? Not just NIFA, which is foundational of course, other agencies with larger budgets? Unsure yet, but we will work to better educate taxpayers on the important work that we do. Better messaging is key.</li> <li>○ Hugely broad network of stakeholders to more widely share this message? Keep in mind our champions, such as the Research Facilities Act (RFA) supporters in Congress.</li> <li>○ Administration buy-in BEFORE the November election will be key.</li> <li>○ We are playing a long game and want this conversation on the table each year.</li> <li>○ More social scientists needed to review these materials to make sure the text is accurate and up-to-date.</li> <li>○ Training for NIFA staff on the Roadmap would be very useful as well, for even better sharing. NIFA is happy to help on the education side.</li> <li>○ Flat funding over time erodes the LGU system. Perhaps include an Outcome on emergency stores of food, within the sustainable food system pillar, based off food issues during the COVID-19 pandemic.</li> </ul>	
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		<ul style="list-style-type: none"> <li>○ Gary Pierzynski formally recognized George Smith on the smooth process for this effort, as well as good transition to the new agInnovation chair. George thanked Jeanette for all her assistance, as well.</li> </ul>	
4.0	<a href="#">agConnect Proposal</a>	<p>Rick Rhodes reviewed the agConnect Proposal provided with the meeting agenda briefs below.</p> <p>Group conversation:</p> <ul style="list-style-type: none"> <li>• How can we break up the “business as usual” effort that our other committees operate on? This committee needs to be much nimbler. Develop a clear scope of work, starting with the two existing websites for immediate management, then grow organically from there. We’ll have important communications around the Research Roadmap this fall, especially.</li> <li>• Need to not duplicate existing activities.</li> <li>• Will receive content from the Section, not generate it. It will be representative of the organization.</li> <li>• Perhaps mostly electronic communications, as needed, perhaps a loose schedule of quarterly calls.</li> <li>• Also review the SARE website, in which individual regional sites are independent, but the overall steering committee manages the flow of content. This site might be a good model to follow for this new effort.</li> <li>• Next steps: gather input and move forward further during the meeting in September.</li> </ul>	For information, discussion
5.0	<p>Incoming Chair Report</p> <ul style="list-style-type: none"> <li>• Fall Meeting Update</li> <li>• Chair’s Initiatives</li> </ul>	<p>Steve Lommel, FFY25 agInnovation Chair</p> <ul style="list-style-type: none"> <li>• Fall Meeting Update: <ul style="list-style-type: none"> <li>○ Excited to host the fall agInnovation meeting in Raleigh, NC. Theme is LGU/Industry Partner Interactions, with many companies in the area and sessions/panels at the</li> </ul> </li> </ul>	<p>For information, discussion.</p> <p>Action Requested: Please register now for the fall meeting! <a href="#">Fall 2024 agInnovation Conference</a>, September 22-25, 2024, Raleigh,</p>

		<p>conference to look at new ways to work together.</p> <ul style="list-style-type: none"> <li>○ We'll hold a Research Infrastructure session, as well.</li> <li>○ Tours to three different companies in the RTP (Research Triangle Park) area and an evening social event at the new NCSU plant sciences building. Expecting about 90-120 registrants.</li> </ul> <ul style="list-style-type: none"> <li>● Incoming Chair's Initiatives: <ul style="list-style-type: none"> <li>○ Steve reviewed his FFY25 initiatives outlined in the included <a href="#">slides</a>.</li> <li>○ Steve also thanks George and Jeanette for starting the agInnovation Research Roadmap and allowing it to easily transition and continue into his term.</li> <li>○ Steve requested feedback on his initiatives, especially his agMoonshot concept to massively accelerate the development and release of the 25 most important food crops - multidisciplinary, multi-agency, multistakeholder engagement will be critical for its success. <ul style="list-style-type: none"> <li>▪ Examples of crops with multiple, transgenic genes? Corn, soybeans, rice, wheat, to start.</li> <li>▪ Who will pick the 25 crops? Perhaps the National Academy of Sciences (NAS) could convene a panel. Then we would create platform technologies for LGUs.</li> <li>▪ Partner with USDA-ARS for this, to avoid issues with intellectual property (IP), since they worked</li> </ul> </li> </ul> </li> </ul>	<p>NC. NCSU team needs a final headcount for tours and meals as soon as possible.</p>
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		<p>through all this with their patent lawyers years ago.</p> <ul style="list-style-type: none"> <li>▪ Engage crop development groups.</li> <li>▪ Specialty crops and dietary guidelines, such as re-classification of potatoes as a grain. We need to investigate this in more detail so as not to exclude important crops.</li> <li>▪ Perhaps pick top technologies instead of 25 crops to not alienate some of our producers? Steve: Some technologies are agnostic, some are not, so we may need to engage with some crops more specifically. It will depend.</li> <li>▪ FYI re: NAS 2030 Science Breakthroughs – took about one year and cost about \$1M.</li> </ul>	
6.0	<p>agInnovation Committee Updates (new information only, 5 min each)</p> <ul style="list-style-type: none"> <li>• <a href="#">BLC</a></li> <li>• <a href="#">DCC</a></li> <li>• <a href="#">Finance</a></li> <li>• <a href="#">NPGCC</a></li> <li>• NRSP-RC</li> <li>• <a href="#">STC</a></li> </ul>	<ul style="list-style-type: none"> <li>• BLC (Anton Bekkerman, Chair) – Anton reviewed the <a href="#">BLC brief</a> included below, with an overview of the APLU structure and how BLC fits within that and agInnovation and its purpose. George thanked Anton for his leadership and efforts on the BLC.</li> <li>• DCC (Rick Rhodes for Brain Raison, Chair) – Rick reviewed the included <a href="#">DCC agenda brief</a> included below. DCC will be deciding next week on the winners of the DCC awards, as well as best practices from across the regions. Rick also mentioned the <i>Lived Experiences</i> webinar program. George thanked Brian Raison for his work and leadership on the DCC.</li> <li>• <a href="#">Finance</a> (Rick Rhodes for Matt Wilson) – Matt sends his greetings to the group; he will rotate off the committee this September. agInnovation budget</li> </ul>	<p>For information.</p> <p>STC requests that NE2334 and S1089 should be re-submitted for consideration next year’s Excellence in Multistate Research Award.</p>

		<p>and strategy was presented and voted upon earlier this year and it was approved. The new budget strategy now allows us to change our allocation of investments in the TDWealth account. The plan is to change from the current “moderately conservative” to a slightly more aggressive “moderate” position to help support the new agInnovation non-profit. We are also about halfway through the CY24 agInnovation budget and it’s in good shape.</p> <ul style="list-style-type: none"> <li>• NPGCC – Bret Hess reviewed the <a href="#">NPGCC agenda brief</a> included below. The group also has had a lot of turn-over in the past year and the group is down to just two of the standing committee members. Will need to decide on a new chair.</li> <li>• NRSP-RC (Steve Lommel, Chair) <ul style="list-style-type: none"> <li>○ The annual meeting is next week.</li> <li>○ NRSP3 (atmospheric deposition capacity project) is up for renewal and looks good, likely no issues with this one.</li> <li>○ A new request for AI in agriculture project was received, needs more work at this time. Glenda has some contacts for this, should the group wish or need assistance. She also mentioned that state legislators are starting to look more closely at AI and maybe creating policies.</li> <li>○ Also, an urban ag project proposal, heavy in Extension, is under development still, and is working including more research in the submission, since NRSPs are meant to be research-focused and receive OTT Hatch Multistate Research funds.</li> <li>○ The NRSP program is currently operating under its allowable funding level, so there</li> </ul> </li> </ul>	
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		<p>are resources for an additional one or two projects.</p> <ul style="list-style-type: none"> <li>• STC (Bret Hess for Nathon Slaton, Chair) – Bret reviewed the <a href="#">STC agenda brief</a> on behalf of Chair Slaton. Highlights: <ul style="list-style-type: none"> <li>○ Open access data webinar from NIFA to help gain better understanding of what it is; creating a general guide in place for institutions to follow. Ultimately, as of 2023, any USDA funded projects need to be compliant. Accepted manuscripts need to be posted in the public repository. Open access publications can be shared directly with the Ag Library, and many have already been posted, especially those that were already published through open access sites. Data for these projects also needs to be publicly posted. This includes ALL USDA funding, including Capacity. This is a work in progress. It's up to us to make sure faculty are aware of this requirement.</li> <li>○ Excellence in Research Innovation winner – Barbara Valent, Kansas State University.</li> <li>○ Multistate Research Award winner – NCERA101, Controlled Environment Technology and Use. Two others, NE2334 and S1089, were also excellent and should be re-submitted for consideration next year.</li> </ul> </li> </ul>	
7.0	agInnovation 501(c)(3) Update	<p>Bret Hess (for Chris Pritsos):</p> <ul style="list-style-type: none"> <li>• Bret reviewed his <a href="#">slides</a> on this update, with history, purpose, and structure of the 501(c)(3), with elected and sustaining board members.</li> </ul>	For information, discussion

		<ul style="list-style-type: none"> <li>• Approved by the IRS to operate and considered as a non-profit entity with an EIN. Incorporated in Nevada.</li> <li>• Will support national and regional association activities and nimbly assist with business activities that are excessively cumbersome or impossible to do through host institutions.</li> <li>• \$2500 set aside for basic operations and opened a checking account for the foundation with Chase Bank.</li> <li>• Will try to meet in August in preparation for the fall agInnovation meeting this September.</li> <li>• Comment from Rick: The W association (agInnovation West) shared with everyone their 501c4, which served as a model for this 501c3, which will allow agInnovation members to operate more efficiently and effectively.</li> <li>• George thanked Bret for all his work on this.</li> </ul>	
	<p>Open discussion--What is on your mind?/Other Business</p>	<ul style="list-style-type: none"> <li>• FYI: APLU BAA has initiated the Capacity Funding task force with a hired consultant to provide a better case on the importance of our capacity funding. This will be presented later in this meeting at the General Session on 7/17.</li> <li>• NC-FAR July 23 Lunch-n-Learn on Western regional water collaborations, as an example of the NAS report on LGU collaborations. Please share this widely to get as many Congressional staffers as possible in attendance.</li> <li>• NIFA AFRI Update – Modifications just published last week. New APHIS/USDA \$10M additional funding for an interagency avian influenza effort. Also, \$4.5M for USDA nutrition hubs. Co-funded NIFA/Commodity projects are up to 21 now.</li> </ul>	<p>For information.</p>

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**Meeting Slides/Other Materials – In case you’re viewing this as a .pdf or having trouble opening the objects below, these files are also attached as .pdfs at the [end of this document](#)**

**Research Roadmap Slides:**



Research Roadmap  
slides from meeting.

**Pillar Documents:**



agInnovation  
Executive Summary



agInnovation  
Climate Solutions



agInnovation  
Sustainable Food



agInnovation  
Water Resilience Dr

**Incoming Chair Initiatives:**



Steve Joint COPs  
1.1.pptx

**agInnovation 501(c)(3) Update:**



agInnovation  
non-profit update\_2

#### **Item 4.0: agConnect Proposal**

**Presenter: Rick Rhodes**

### **agConnect Team: agInnovation's resource for communications, public relations, marketing, and management of its digital assets**

#### **The Challenge:**

agInnovation currently does not have an oversight strategy for its efforts dedicated to communications, public relations, marketing, and management of its assets (print or digital).

#### **Background:**

agInnovation operates two websites, [ESCOP.info](http://ESCOP.info) and [agInnovation.info](http://agInnovation.info). Both these websites are managed on an ad hoc basis. Clemson University provides the spine (WordPress) for the ESCOP website and content changes are made on that website by the assistant Executive Directors (AED) from the regional associations of agInnovation. (All the AEDs have Wordpress logins and are able to make changes to the ESCOP website.) The agInnovation site is built on a Wix backbone and all changes to the website are made by the Northeast's Assistant Executive Director. While there are three guides currently on the ESCOP website that describe [ESCOP Website Governance](#) (v3, January 3, 2017;draft), [ESCOP Website File Naming Protocol](#) (1/27/2020), and [ESCOP Publication Procedures](#), all three need updating to reflect the current agInnovation ecosystem and business practices.

A representative from agInnovation serves in a leadership role on the BAA standing committee, the Communications and Marketing Committee (CMC). The CMC oversees and guides the overall educational effort to increase awareness of the land-grant universities' agricultural and related programs, including the Agricultural Experiment Stations, and Cooperative Extension Services. However, there is no formal or informal relationship between the CMC or its agInnovation representative (currently Leslie Edgar) and agInnovation's organizational efforts dedicated to communications, public relations, and marketing.

Below is an outline describing the formation of an oversight group tasked with the management of agInnovation's inward ([ESCOP.info](http://ESCOP.info)) and outward facing ([agInnovation.info](http://agInnovation.info)) websites and public relations, marketing, and communications strategies. The team described below could exist as an ad hoc committee, a subcommittee, or standing committee of agInnovation.

#### **agConnect Team**

The agConnect Team has direct oversight of the digital assets of agInnovation, which include, but are not limited to, the [ESCOP.info](http://ESCOP.info) and [agInnovation.info](http://agInnovation.info) websites. The role of the agConnect Team is to regularly evaluate these websites. When needed, the agConnect Team will suggest changes (e.g., taking down outdated content, adding new content, and making style changes) and updates to ensure the websites reflect the current state and needs of the Section. The Team will provide semi-annual reports to agInnovation on the status and updates of the websites.

The agConnect Team is responsible for formulating or reviewing recommendations to the agInnovation Chair as well as implementing the Chair's directives regarding public relations efforts, marketing endeavors, social media strategies and campaigns, and analytics. These efforts may include contracting external consultants to advance approved initiatives.

The agConnect Team shall draft and present recommendations to the agInnovation Executive Committee as often as needed for review and approval. For recommendations that require funding, the agConnect Team will develop a detailed budget for proposed services and activities. Finally, the agConnect Team will serve in an advisory capacity and provide counsel regarding public relations, marketing, and communications matters affecting the organization.

**Responsibilities of the agConnect Team include:**

- Regularly evaluating and updating the ESCOP.info and agInnovation.info websites.
- Making necessary changes to website content and style to ensure they reflect the current needs of the Section.
- Providing semi-annual reports on website status to the agInnovation Chair.
- Formulating and reviewing recommendations for public relations, marketing, and social media strategies.
- Developing and proposing budgets for related services and activities that require funding.
- Advising on matters related to public relations, marketing, and communications that impact the organization.
- Drafting and presenting recommendations to the agInnovation Executive Committee (EC) as needed for review and approval.
- Implementing public relations efforts, marketing endeavors, social media strategies and campaigns, and analytics directives of agInnovation.

**Team Composition:**

The members of the agConnect Team include:

- One agInnovation director, preferably the agInnovation representative on the CMC
- Two professional communicators, preferably from different regions
- Two regional coordinators/assistant executive directors
- One regional executive director (chair of the committee)

**Team Terms:**

The term of an agConnect team member would be dependent upon the type of committee under which agConnect is convened. Should agConnect be convened as an ad hoc or subcommittee, the terms of the team members are annual, with reappointment by the Chair. Should agConnect be established as a standing committee, the agInnovation director would serve a three-year term (coincident with the CMC term), the professional communicators serve a three-year term, the two regional coordinators/assistant executive directors serve as legacy members, as does the

regional executive director. Regional executive directors will assist in identifying professional communicators for agConnect.

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## **Agenda Brief: Budget and Legislative Committee (BLC)**

**July 16, 2024**

**BLC Chair: Anton Bekkerman**

**Action: For Information**

### **Budget and Legislative Committee (BLC, <http://escop.info/committee/blc/>)**

BLC meetings occur on the fourth Tuesday of every month from 4:00-5:00 ET. The committee alternates its meetings: one month the meeting is for voting members only to foster open discussion, and the alternating month includes more structured discussion and liaison reports. One of the outcomes of this revised structure is more time for in-depth discussions by the voting members that is valuable in reflecting on broader questions that the BLC needs to address, while still receiving timely input from the liaisons. Lewis-Burke Associates (LBA) regularly participates in our meetings with Dr. Elizabeth Stulberg serving as the liaison.

The BLC chair is a multifaceted leadership position given the multiple committee assignments (BAA-Budget and Advocacy Committee [BAC] voting member, BAA-Committee on Legislation and Policy [CLP] voting member, ECOP BLC liaison). Due to the BLC chair's involvement in many other parts of the BAA where liaisons provide updates, the chair can bring back information to the BLC in a timely manner even with liaisons joining the BLC meetings less frequently.

The predominant focus of the BLC is to create, adapt, monitor, and change agInnovation's input into the BAC, CLP, and infrastructure budget and legislative activities. Modification to existing processes, advancing new deadlines, and creation of new steps and requests make this an iterative process. The BAA Unified FY 2025 Appropriations Request was approved by the BAC and the BAA Policy Board of Directors and is summarized here ([FY25 Approps](#)). The BAA Farm Bill Request is summarized here ([BAA Farm Bill](#)). The BLC also presented information to CARET representatives for Hatch, AFRI, and RFA during the "All About the Request" webinar (<https://www.youtube.com/watch?v=2SahCRJIVGA>) on January 31, 2024. The BLC continually monitors activities that impact FY2025 appropriations and the Farm Bill, including the recent Farm Bill drafts that include substantial funding for the Research Facilities Act.

The BAC and CLP are jointly developing a "Decadal Visioning and Advocacy Strategy" to guide both advocacy and authorization activities over the next five-year period. Two fly-in meetings were convened with BLC and agInnovation leadership participating in Washington, DC for initial discussions. Discussions at both fly-in meetings informed proposed high-level topics to serve as pillars for the decadal plan. Below is the content provided by the BLC on January 12, 2024. This content was shared during the January 10 agInnovation Chairs Advisory Committee virtual meeting and revised.

#### **1. National Security and Resiliency**

Overcoming climate change and land access challenges, the United States produces 95% of its food domestically while reducing water, land, and energy inputs by 50%, capturing 75% more carbon and reducing agricultural greenhouse gas emissions by 60% through advanced food and biobased technologies—all helping ensure food price inflation is under 2%.

#### **2. Global Competitiveness and Leadership**

America will be the global leader by tripling its annual agricultural and food science innovations and high impact patents, underpinned by an increase of at least \$2.0 billion annual federal investment in capacity and competitive programs that support agricultural research and extension.

#### **3. Food and Diet-Related Diseases**

Food insecurity in America will be less than 5% and development of more nutritious food and safer food production and consumption will cut in half the number of Americans with diet and other food-related diseases, reducing national healthcare costs by 25%.

#### 4. **Rural Prosperity**

America's rural communities are revitalized through new biobased industries, diverse farming opportunities, and a high quality of life that reduces rural poverty by 50% and incomes grow by 30%.

On February 15, the BAC/CLP decadal visioning committee met to discuss the initial draft of a high-level overview, based on information received from different committee members. The document included three themes:

- The United States maintains a safe, abundant, and secure domestic food supply for the benefit of food safety and national security.
- Rural communities are economically and environmentally healthy places to live.
- Americans have better, more satisfying diets and longer, healthier lives.

A high-level overview document was presented at the 2024 CARET-BAA meetings. This document continues to evolve and most recently, the BLC provided impact statements relevant to each of the themes from the Multistate Research Fund Impacts and the National Impact Data Base (NIDB).

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**Agenda Brief:** agInnovation Diversity Catalyst Committee (DCC)  
**Date:** July 16, 2024  
**Chair:** Brian Raison (Ohio State)

- 1.) Committee Membership (as of July 16, 2024): see ESCOP Diversity Catalyst Committee (DCC) webpage – <http://escop.info/committee/dcc/>
- 2.) Meetings (since March 14): The DCC held the following meetings via Zoom. Minutes/notes from those meetings are available on the DCC’s page on the ESCOP website (see Past Events).
  - April 25, 2024
  - June 27, 2024
  - Upcoming Meeting: July 25, 2024
- 3.) Accomplishments / Upcoming Plans:
  - During the meeting of April 25, the DCC discussed sharing two resources with agInnovation Directors:
    - [“A Different Look at DEI in Higher Education”](#) (via Honorlock Online Proctoring), which could be used to inform future agInnovation programming.
    - [Colorado State Employee Climate Survey](#) regarding inclusive excellence that aims to assess the current working environment and to inform strategic decisions and investments that allow employees to work in alignment. Resulting data can strengthen commitments to institutional accountability, and inform policies, initiatives, and opportunities that will provide an equitable and exceptional work environment. **This instrument may be repurposed by other institutions if there is attribution given to Colorado State University.**
  - The nomination period for the 2024 National agInnovation Diversity, Equity, and Inclusion Awards ended on June 30. Nominations were submitted for both the group and individual awards. The DCC intends to present two awards recognizing creation and implementation of inclusive efforts at the local, state, regional, or national levels. Award nominations will be reviewed during the meeting of July 25.
  - Further webinars arranged by the Diversity Catalyst Committee are anticipated to be held in 2024.

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**Agenda Brief:** agInnovation Finance Committee  
**Date:** July 16, 2024  
**Chair:** Matt Wilson (West Virginia University)

- 1.) Committee Membership: see agInnovation Finance Committee webpage – <https://escop.info/committee/finance-committee/>.
- 2.) Meetings (since March 14): The Finance Committee has not met since the agInnovation meeting of March 14.
- 3.) Accomplishments / Upcoming Plans:
  - Sponsorship of a session at the Agricultural Media Summit (\$5,000) was approved by the committee electronically. agInnovation chair George Smith was invited to serve on a panel with NIFA Director, Manjit Misra, to speak on behalf of ag research. The sponsorship provides agInnovation with industry-wide advertising and opportunities to hold interviews with multiple ag media outlets.
  - Electronic ballots were cast in June by agInnovation Directors on the [agInnovation Budget Strategy and agInnovation Investment Strategy](#). Approval of both strategies was sought as a single question on the ballot. The question passed by a large margin: 47 approve, 2 reject, 0 abstain. The 49 votes cast were from a possible pool of 76 (64% response rate from agInnovation). As a reminder, both strategies were presented as recommendations to agInnovation during the meeting of March 14.
  - As of July 10, agInnovation has incurred \$98,277 in approved expenses against an approved CY 2024 budget of \$183,000. The cash position of agInnovation is healthy. agInnovation’s TD Wealth account is currently valued at \$655,260. Per the approved agInnovation Investment Strategy, the risk profile of the TD Wealth account will shift from a moderately conservative approach to a moderate approach. In making the shift, we expect to withdraw approximately 4% from the investment account annually (~\$26,000) to augment the agInnovation budget.

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**Agenda Brief: agInnovation National Plant Germ Plasm Coordinating Committee (NPGCC):**

<https://escop.info/committee/national-plat-germplasm-coordinating-committee-npgcc/>

**Action: For Information**

**Committee Members:**

<p><b>Chair:</b> Bob Stougaard (SAAESD)</p> <p><b>Delegates:</b> Carolyn Lawrence-Dill (NCRA) Scot Hulbert (agInnovation- West) Olga Padilla-Zakour (NERA) Melanie Harrison (USDA- ARS) Gayle Volk (USDA- ARS) Larry Chandler (USDA- ARS) Jessica Shade (USDA- NIFA)</p> <p><b>Executive Vice Chair:</b> Bret Hess (agInnovation- West ED) Jennifer Horton (agInnovation- West Recording Secretary)</p>	<p><b>Liaisons:</b> David Baltensperger (NAPB) Sarah Wilbanks (AOSCA) Ksenija Gasic (PBCC) Tim Cupka (ASTA)</p>
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**Meeting:** An annual meeting was held virtually on May 28, 2024, 11:00 am-2:00 pm ET.

The meeting was attended by most NPGCC members and liaisons. The agenda for the annual meeting included presentations by several members and liaisons.

Gayle Volk, who is serving as the acting NPL for the USDA- ARS National Plant Germplasm System (NPGS), shared the release of the current document [“Synopsis of the National Strategic Germplasm and Cultivar Collection Assessment and Utilization Plan”](#), which is an abridgement of two companion documents that provide extensive details and supporting information for the congressionally mandated National Strategic Germplasm and Cultivar Collection Assessment and Utilization Plan: the “National Strategic Germplasm and Cultivar Collection Assessment and Utilization Plan: The Technical Details document, Analyses, and Approaches” and the “National Strategic Germplasm and Cultivar Collection Assessment and Utilization Plan: Supplemental Crop and Crop Wild Relative Collections Data.” The synopsis hyperlink is posted on the NPGCC website. Discussion among the committee and liaisons revolved around sustainable funding for NPGS.

Melanie Harrison provided a report on behalf of each regional LGU plant germ plasm station. The regional stations continue to be important contributors to the U.S. National Plant Germplasm System. Discussion among the committee and liaisons revolved around the number of staff vacancies at the respective stations.

A guest speaker representing the Plant Breeding Coordinating Committee (PBCC), Mikey Kantar, continued the conversation about future preservation of plant germplasm. Mikey explained that a workshop on July 20 will lead to the development of a best practices guide for retaining plant germ plasm when an LGU plant breeder retires. The goal is to have a draft to all participants of the workshop

by the end of August and to publish the guide by the end of 2024. Members of NPGCC will be given an opportunity to review and comment before publishing the guide. NPGCC will also coordinate with PBCC on informing agInnovation members about the guide.

**Future Meetings:** NPGCC members are interested in switching from a virtual annual meeting to meeting in person for at least the next two years. Tentative plans are to meet at Iowa State University June 8-12, 2025. For 2026, the plan is to hold the NPGCC meeting in conjunction with the 15th anniversary meeting of the National Association of Plant Breeders at Texas A&M.

**Membership and Liaison Changes:** A number of changes in the composition of NPGCC have taken place since last year's annual meeting. Notably, Dr. Peter Bretting retired at the end of 2023. Dr. Bretting served as the NPL for the USDA- ARS National Plant Germplasm System (NPGS) for decades. He provided invaluable leadership to NPGS and NPGCC during his tenure. Dr. Gayle Volk was named as Dr. Bretting's replacement.

Dr. Jessica Shade with USDA- NIFA is stepping in for Ann Stapleton while Ann is on detail.

Attempts to reach Tim Cupka have failed. NPGCC will be reaching out to ASTA leadership to confirm Tim's role and/or to seek a replacement.

Dr. Carolyn Lawrence-Dill has accepted a new position as Dean of the College of Agricultural Science at Colorado State University. Congratulations to Carolyn and thank you for your service on NPGCC. A replacement for Carolyn is pending.

NPGCC Chair, Dr. Bob Stougaard, stepped down as assistant dean for research at the University of Georgia effective July 1, 2024. Bob was an outstanding Chair and his leadership was greatly appreciated by all. A huge thank you is extended to Bob for several years of service on NPGCC.

A replacement for Dr. Stougaard, as well as a new NPGCC Chair, is pending.

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**Agenda Brief: Science & Technology Committee (STC)**

**Action: For Information**

**agInnovation Science & Technology:** <http://escop.info/committee/scitech/>

**Committee Members:**

<p><b>Chair:</b> Nathan Slaton (SAAESD) <b>Past Chair:</b> Bernie Engel (NCRA)</p> <p><b>Delegates:</b> Alton Thompson (ARD) John Yang (ARD) Frank Casey (NCRA) Shibu Jose (NCRA) George Criner (NERA) Jason Hubbart (NERA) Vacant (SAAESD) David Monk (SAAESD) Gene Kelly (WAAESD) Greg Cuomo (WAAESD)</p> <p><b>Executive Vice Chair:</b> Bret Hess (WAAESD ED) Jennifer Horton (WAAESD Recording Secretary)</p>	<p><b>Liaisons:</b> Tara McHugh (ARS) Kevin Kephart (NIFA) Roger Magarey (NIPMCC) Tim Killian (SSCC)</p>
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**Meetings:** Virtual meetings are scheduled 1-2 pm PT/2-3 pm MT/3-4 pm CT/4-5 pm ET the first Monday of the month. Zoom connection information is:

<https://unr.zoom.us/j/81036274718?pwd=OHIHYXhkWIEvekI3NjcwREZ1dDJpZz09>

Meeting ID: 810 3627 4718 Passcode: STC

**Activities Since the Report to the agInnovation on March 14, 2024**

Long-term member of STC, Nathan McKinney retired leaving a vacancy in membership from SAAESD. Dr. McKinney was recognized by STC for his long-term service and commitment to STC.

The following voting members represent STC on the agInnovation Chair’s Research Strategy Roadmap working group: Nathan Slaton, John Yang, Shibu Jose, George Criner, and Gene Kelly.

**Open Access**

Plans to begin working on development of guidelines to recognize the use of capacity funds in publications and making data publicly available via Data Commons resumed with a presentation by Dr. Cynthia (Cyndy) Parr, USDA REE Assistant Chief Data Officer and Senior Research Data Policy Analyst at the National Agriculture Library. Cyndy was joined by three members of her team.

The following details from the presentation are an initial step towards STC’s efforts to help educate fellow directors about open access policies and requirements. One future deliverable might be the development of guidelines for data management, especially for long-term experiments.

The progression of public access policies in the U.S. has been marked by significant memos and regulations. The Holdren Memo of 2013 initiated a movement towards increased public access to federally funded research. This was further advanced by the [2022 memo](#), which introduced additional requirements for federal science agencies. These policies align with the Open Government Data Act of 2018, emphasizing transparency and accessibility of government data. The [Departmental Regulation 1020-006](#), which is currently being revised, will incorporate these new mandates. The implementation of these policies is a coordinated effort across federal agencies, with full implementation of the revised regulations expected by 2025. This ongoing process reflects a commitment to open science and the equitable dissemination of research findings to the public.

The plan for implementing changes based on the 2022 memo is accessible [online](#), detailing compliance with the Office of Science and Technology Policy's requirements. The approach is to affirmatively respond to the White House's directives, providing a framework for how these will be executed. The scope of the departmental regulation extends to USDA employees, awardees, and contractors involved in scientific research, applicable to projects funded from fiscal year 2023 onwards, starting October 1, 2022. The regulation does not retroactively apply to historical data but focuses on current and future research activities.

The policy requirements for scholarly publications mandate that peer-reviewed journal articles must be freely available to the public upon acceptance. Previously, a 12-month embargo was permitted, but this will be eliminated in 2025. Authors can submit the final published version to [PubAg](#) if they have the rights to it, often associated with gold open access fees. Otherwise, the final version of the accepted manuscript post-peer review, which is not under the journal's copyright, should be uploaded to PubAg. Data associated with publications must be publicly available when a manuscript is published. Published data is required to be in a machine-readable format in a recognized repository that offers public access, a persistent identifier, and ensures data preservation.

Data preservation is a critical aspect of research, ensuring that valuable data remains accessible and usable over time. Best practices for data preservation include documenting ownership and responsibility, restricting access to sensitive data, and following the 3-2-1 rule for backups. Data should be stored in non-proprietary formats with adequate metadata for future use.

The current 12-month embargo policy for data release is set to change, with new policies aiming for immediate and equitable access to federally funded research data, eliminating the embargo period. This shift is intended to prevent data from being withheld indefinitely, particularly data with negative results or long-term datasets that may not produce research papers for years. Not all data is required to be publicly accessible; exceptions include concerns over national security, endangered species, or data irrelevant to research validation. These measures balance the need for open science with the protection of sensitive information.

The Ag Data Commons serves as a research data catalog and repository for public access to data produced during research funded or co-funded by the USDA. This ensures that USDA-funded research data is findable, accessible, interoperable, and reusable, aligning with the FAIR principles of Open Science.

Additionally, researchers are required to create and adhere to data management plans that align with the policies of their agency or the USDA's departmental guidance. This framework aims to maximize the practical accessibility of research data while maintaining necessary protections and standards for its use.

Creating a Data Management Plan (DMP) is a critical first step in managing research data effectively. A DMP outlines how data will be handled both during the research process and after the project is completed, ensuring that data is stored, archived, and accessible for future use. Funding agencies like NIFA require a DMP as part of the project proposal, with specific requirements detailed in the Request for Applications (RFA). Applicants must adhere to these guidelines, which often include selecting a suitable data repository to store and share their research data. This ensures that data is preserved in a way that facilitates scientific inquiry and advances further research.

Selecting the right data repository is crucial for the preservation and dissemination of research data. It's important to consider domain-specific repositories as they often have the infrastructure and expertise to maximize the data's discoverability and reuse. Generalist repositories are also an option, especially for data that doesn't fit into a specific category. These repositories should provide a stable, unique identifier like a DOI to enhance the data's visibility and citation. The Ag Data Commons, supported by the USDA, exemplifies a generalist repository that also acts as a catalog for USDA-funded research, ensuring data is FAIR—findable, accessible, interoperable, and reusable. Submissions to Ag Data Commons are meticulously reviewed by data curators to ensure the integrity and accuracy of the data before it becomes publicly available.

### **Awards**

Several strong nominations were received for the 2024 Excellence in Research Innovation Award. Following the scoring matrix published as part of the call for nominations, voting members of STC were pleased to name Dr. Barbara Valent as the inaugural winner of this prestigious award.

An outstanding slate of nominations for the 2024 Excellence in Multistate Research Award were scored by voting members of STC. Following extensive evaluation of the scores and much deliberation by the committee, NCERA101: Controlled Environment Technology and Use was named the winner. Both NE2334: Genetic Bases for Resistance and Immunity to Avian Diseases and S1089: Advanced Understanding and Prediction of Pollutants in Critical Landscapes in Watersheds received honorable mention and are encouraged to resubmit nominations for the 2025 Excellence in Multistate Research Award.

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**All Attachments as .pdf files, start on the next page.**





# Research Roadmap

## Update and Path Ahead

**George Smith**  
agInnovation Chair

# agInnovation Initiative

## 10-Year Research Roadmap

Foundational Focal Areas (Pillars)

Bold and Specific Outcome Goals

Risks of Not Taking Action

Federal Investment Strategy

Stakeholder Input

Implementation





# agInnovation Research Roadmap Journey

agInnovation Roadmap Working Group Formed; Facilitator hired

Fall/Winter 2023

Collect, Analyze, and Incorporate Internal and External Stakeholder Input

Summer - Winter 2024

Spring 2024

**Working Group Meetings**

- In-Person Working Group Session in Chicago
- Multiple ZOOM Discussions

**Identified:** Vision, Roadmap Pillar topic areas, Outcome Goals, Research Opportunity examples, and Risks of Not Taking Action

**Began discussion:** Federal Budget Strategy and Roadmap implementation

January 2025

Complete Stakeholder-Informed Research Roadmap, including Budget Strategy and Implementation Plan  
Implement Roadmap

# Research Roadmap Working Group

## \*BLC Members

Sreekala Bajwa  
Anton Bekkerman  
Vernon Jones  
Gary Pierzynski  
Scott Senseman

## \*\*STC Members

George Criner  
Shibu Jose  
Gene Kelly  
Nathan Slaton  
John Yang

Facilitator: Ms. K.J. McCorry



## Other agInnovation and Partner Members

Rich Bonanno  
Robert Burns  
Christina Hamilton  
Bret Hess  
Steve Lommel  
Linda Nagel  
Rick Rhodes  
Carrie Schumacher  
George Smith  
Doug Steele  
Alton Thompson  
Gary Thompson  
Jeanette Thurston

\*BLC = Budget and Legislative Committee

\*\*STC = Science and Technology Committee



## Water Resilience Outcome Goals

- Increase water use efficiency by 50% across food and agriculture systems (i.e., production and processing).
- Enhance the health and U.S. Environmental Protection Agency compliance of our rivers, lakes, streams, and coastal waters by reducing water quality impairment within agricultural watersheds by 40%.
- Enhance agricultural system resilience by reducing agricultural production losses to waterlogging, flooding, and drought by 50%.



# Climate Solutions

## Outcome Goals

- Enhance yield stability and improve soil health through increased soil carbon sequestration and moisture content, reducing the carbon footprint of agriculture by 40%.
- Improve nitrogen fertilizer use efficiency, minimize nutrient runoff, and enhance recycling while reducing costs of production for farmers and related greenhouse gas emissions by 35%.
- Foster new forestry land management, land cover, and harvesting approaches that promote healthy forests resistant to fire and extreme weather events, and aid in the uptake of carbon dioxide emissions equivalent to 30% annually.
- Improve adoption of climate-smart practices and enhance resilience of agriculture, rangeland, and forest ecosystems, optimizing production amid higher rates of extreme weather conditions and events. Doing so can help reduce annual federal crop insurance payments by 25%, or \$3.5 billion annually.





# Sustainable Food Systems

## Outcome Goals

- Achieve national and food security by producing 95% of our food domestically, increasing local and regional farm net incomes by 20%, and reducing food waste by 50%.
- Bolster supply chain resilience of food systems by strengthening local and regional markets to meet between 15% to 25% of the local demand, while reducing the carbon footprint of food transportation by 25%.
- Reduce food insecurity and decrease diet-related diseases by 40% in all communities.
- Safeguard the food supply through the prevention of foodborne contaminants, plant and animal disease outbreaks, and pests during food production, processing, transportation and retail.





# Cross-Cutting Outcome Goal

*Annually train an additional 20,000 students in food, agriculture, and renewable natural resources, addressing the growing demand for a skilled workforce in these sectors. Students will be recruited with diverse backgrounds and experiences reflective of the U.S. population.*





# Risk of Not Taking Action

- **Food system failures** and disruptions from global conflicts, pandemics, economic downturns, and climate change threaten national security, causing food supply interruptions, food spoilage, food insecurity, foodborne and chronic diseases, environmental degradation, economic instability, and mass migration.
- **Declining water availability** for drinking and home use in rural and urban communities, as well as for agricultural production. **Declining water quality** will negatively impact wildlife, recreation, and public health.
- Agriculture is already impacted by **variable and extreme weather**, leading to wildfires and water-caused crop failures. If not addressed, this will worsen, reducing crop yields, harming livestock, forests, and fisheries, and degrading water, air, and soil quality.





# Federal Investment Strategy

**Federal R&D Budget = Fiscal Year (FY) 2023: \$193 billion**

*Increase of 1% Federal Research and  
Development (R&D) Budget*

- \$1.9 billion increase annually
- \$19 billion increase over 10 years
- **Total Annual Funding Request\*** (current funding and 1% Federal R&D increase) = **\$3.67 billion or 1.9%** of the total annual federal R&D budget (based on FY2023)

*\*To support capacity and competitive programs at USDA and other federal agencies*



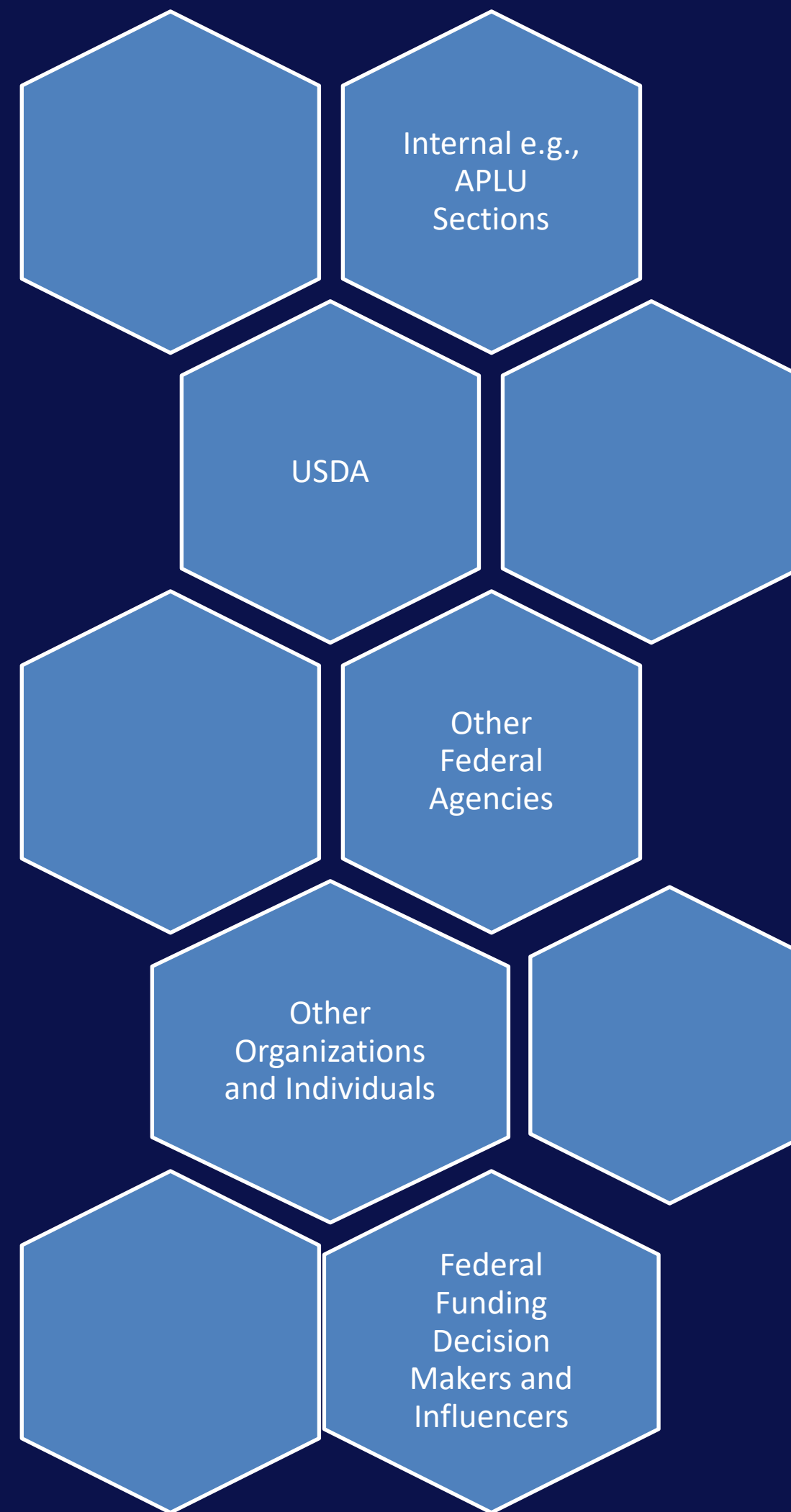
# STAKEHOLDER INPUT

*Numerous in-person and ZOOM meetings over the summer, fall and winter months*

## Upcoming Events:

Ag Media Summit (August)

NCFAR Lunch-n-Learn on Capitol Hill  
(September)





STANDING COMMITTEES

**BUDGET AND LEGISLATIVE COMMITTEE**

**SCIENCE AND TECHNOLOGY COMMITTEE**

*\*Communications*

# IMPLEMENTATION STRATEGY





# QUESTIONS?

*We are seeking your input!*  
*The DRAFT Research Roadmap Pillar areas and Executive Summary will be shared by email after the BAA Summer Leadership Meeting.*

*Please provide written input to [smithge7@msu.edu](mailto:smithge7@msu.edu) and [Jthurston@ksu.edu](mailto:Jthurston@ksu.edu)*



agInnovation  
science that feeds the world

THANK YOU



**agInnovation**  
science that feeds the world



# Discussion—Seeking Your Input

Federal Investment Strategy, Pillar Areas, and

Implementation



# Federal Investment Strategy

## 1. *We previously discussed:*

- *Doubling of Federal Food, Agriculture, and Natural Resources Funding*
  - \$1.7 B annually; \$17 B increase over 10 years

## 2. *Thoughts on new strategy: 1% of Federal R&D Budget?*

- \$1.9 B increase annually; \$19 B increase over 10 years
- \$3.67 billion total annual request or 1.9% of the total annual federal R&D budget

## 3. *Other approaches?*





# Water Resilience Outcome Goals

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STANDING COMMITTEES

**BUDGET AND LEGISLATIVE COMMITTEE**

**SCIENCE AND TECHNOLOGY COMMITTEE**

*\*Communications*

# IMPLEMENTATION STRATEGY







*We are seeking your input!*  
*The DRAFT Research Roadmap Pillar areas and Executive Summary will be shared by email after the BAA Summer Leadership Meeting.*

*Please provide written input to [smithge7@msu.edu](mailto:smithge7@msu.edu) and [Jthurston@ksu.edu](mailto:Jthurston@ksu.edu)*

Save  
the  
date

agInnovation  
science that feeds the world



# 2024 agInnovation Meeting

September 22-25

Raleigh, North Carolina

[go.ncsu.edu/aginnovation-2024](https://go.ncsu.edu/aginnovation-2024)

NC STATE  
UNIVERSITY



NC STATE PLANT SCIENCES BUILDING

# Reimagining the Land-grant University – Industry Relationship

Sheraton Raleigh Hotel, Raleigh, NC  
[go.ncsu.edu/aginnovation-2024](https://go.ncsu.edu/aginnovation-2024)

**Keynote Presentation** - Phil Taylor, Bayer

## **Session I: Stimulating Innovation with Industry Partners**

Moderator: Deborah Thompson, NC State

Panelists

Dan Maycock, CropTrak

Paula Barngrover, Alura, Iluma Alliance

Jonathan Mueller, John Deere

## **Session II: New Models for Industry Engagement**

Moderator: Nandini Mendu, NC Biotechnology Center

Panelists

Heather Smith, Novonesis

John Gottula, SAS Institute, Inc.

Angela Records, FFAR

Neal Okarter, BASF Venture Capital

## **Session III: Ag Research Infrastructure Vision & Engagement Workshops**

### **Workshop A: Different by Design and Build: NC State Plant Science Building**

Discussion Moderator: Steve Lommel, NC State

Discussion Panelists

Chuck Mummert, Flad Architects

Doug Morton, NC State

### **Workshop B: Are you prepared for RFA funding?**

Discussion Moderator: George Smith, Michigan State University

Discussion Panelists

Ernie Minton, Kansas State University

Chandra Reddy, Tennessee State University

Larry Chandler, USDA ARS

Glynda Becker-Fenter, Washington State University

**RTP Tours:** 1. First Flight Venture Center 2. Syngenta Innovation Center – Advanced Crop Lab 3. Zoetis Animal Health – Biodevices Unit

## 2024-2025 agInnovation Priorities

- Enhance Funding for Agricultural Research
- Address Critical Infrastructure Needs
- Promote Diversity, Equity, and Inclusion
- Lead in Environmental and Sustainability Solutions
- Strengthen Collaborative Partnerships
- Increase Organizational Visibility and Impact



## 2024-2025 Chair's Initiatives

- Finalize and implement a stakeholder-informed agInnovation Research Strategy
- Create a formal framework to facilitate research collaborations among 1862, 1890, and 1994 Land-grant universities
- agMoonshot concept: Massively accelerate the development and release of the 25 most important food crop



agInnovation

501(c)(3) non-profit

Purpose



\$

The 501(c)3 non-profit organization will support activities of agInnovation and the regional associations.

# Justification



## Flexibility

Improve efficiency of operations and enhance business functions for agInnovation and the regional associations.



## Eligibility to Accept Donations

Offer the ability to accept donations, sponsorships, and grants from corporations, organizations, and other grant makers seeking tax deductible charitable contributions, especially when eligibility is limited to 501(c)(3) non-profit organizations.

# Program Services



## Primary Objective

To support educational and professional development opportunities through a variety of events offered by agInnovation and the regional associations.

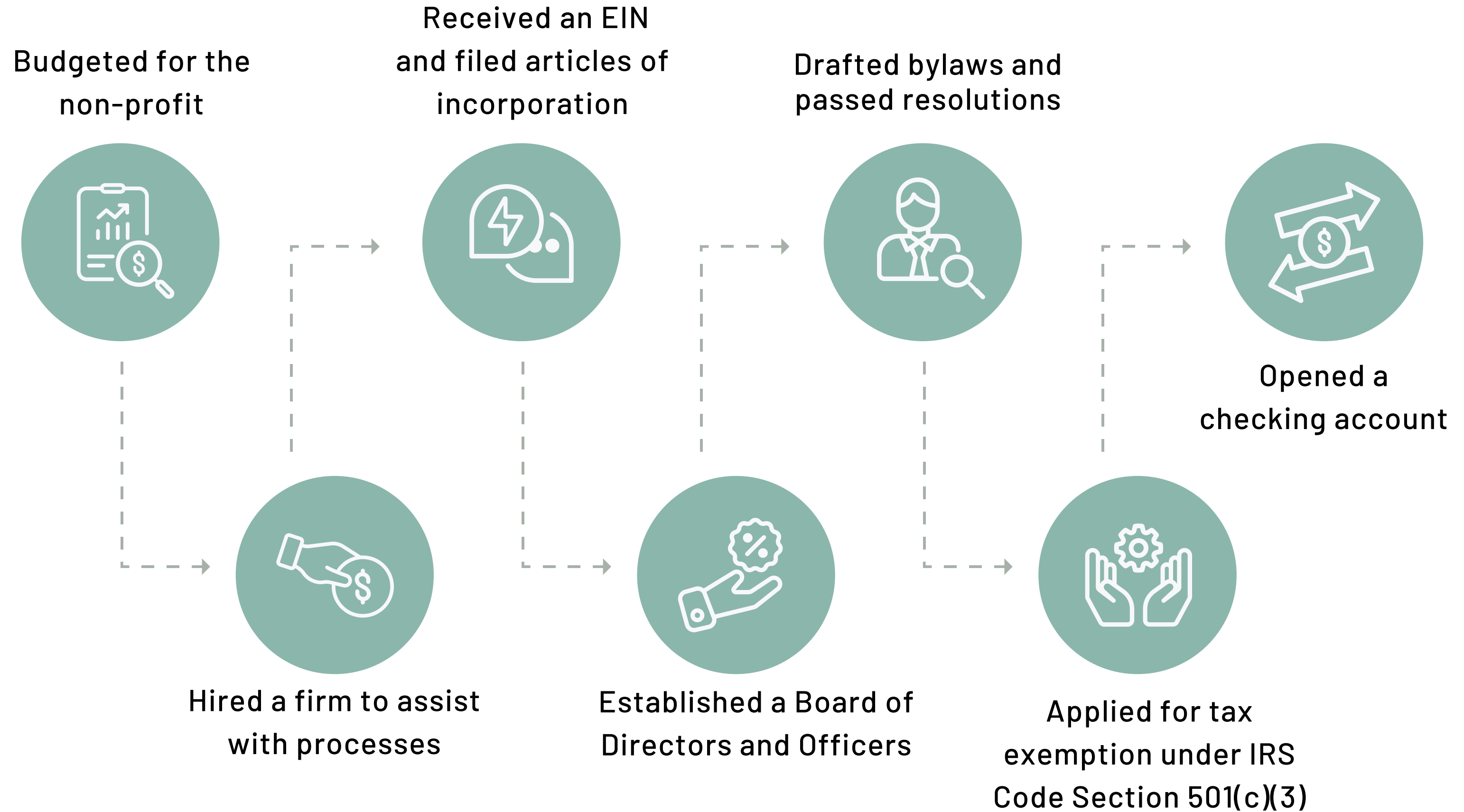


## Secondary Objective

To expand overall capacity to support education and advocacy efforts which enhance agInnovation's position as a global leader in agricultural and food systems research.



# Progress on Establishment



## agInnovation Founding Board Members

Chris Pritsos,  
President, University  
of Nevada, Reno

Matt Wilson, Vice  
President, West  
Virginia University

George Smith, President-  
elect, Michigan State  
University

Steve Lommel, Member,  
North Carolina State  
University

José U. Toledo, Member,  
Southern University

## agInnovation Sustaining Board Members

Bret Hess, Secretary,  
agInnovation- West

Rick Rhodes,  
Treasurer, NERA

Jeanette Thurston,  
Member, NCRA

Gary Thompson,  
Member, SAAESD

Alton Thompson,  
Member, ARD

## 2024 agInnovation Elected Board Members and Officers

Chris Pritsos,  
President, University  
of Nevada, Reno

Steve Lommel, Vice  
President, North  
Carolina State  
University

George Smith, President-  
elect, Michigan State  
University

Matt Wilson, Member,  
West Virginia University

José U. Toledo, Member,  
Central State University

## agInnovation Sustaining Board Members

Bret Hess, Secretary,  
agInnovation- West

Rick Rhodes,  
Treasurer, NERA

Jeanette Thurston,  
Member, NCRA

Gary Thompson,  
Member, SAAESD

Alton Thompson,  
Member, ARD

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AGINNOVATION

**\$100.00**

Available balance

**\$2,500.00**

Present balance

**\$0.00**

Available credit



# Supporting agInnovation Members!



Formerly, Western  
Association of Agricultural  
Experiment Station Directors



**NCRA**  
North Central Regional  
Association of  
Agricultural Experiment  
Station Directors



**SAAESD**  
Southern Association of  
Agricultural Experiment Station  
Directors



**NERA**  
Northeastern Regional  
Association of State Agricultural  
Experiment Station Directors



**ARD**  
Association of Research  
Directors

# Climate Solutions



## Overview:

As a global leader in agricultural production, the United States must enhance the resilience of our agriculture and natural resources to withstand increasingly variable weather conditions and extreme weather events. This requires moving beyond traditional efficiency metrics. It is essential to prioritize productivity that regenerates soil, sustains water resources, and enhances biodiversity and community resilience. Embracing climate-smart practices, soil health principles, and advanced technologies will protect our natural resources and propel U.S. agriculture forward, thereby improving resilience and national food security.

## Outcome Goals and Impacts:

- Improve yield stability and soil health through increased soil carbon sequestration, higher soil moisture content, and a 40% reduction in agriculture’s carbon footprint.
- Improve nitrogen fertilizer use efficiency, minimize nutrient runoff, and enhance recycling while reducing costs of production for farmers and related greenhouse gas emissions by 35%.
- Foster new forestry land management, land cover, and harvesting approaches that promote healthy forests resilient to fire and extreme weather events, and aid in the uptake of 30% of economy-wide carbon dioxide emissions annually.
- Improve adoption of climate-smart practices and enhance resilience of agriculture, rangeland, and forest ecosystems, optimizing production amid variable, changing weather conditions and extreme weather events. Doing so can help reduce annual federal crop insurance payments by 25%, or \$3.5 billion annually.
- **Cross-cutting outcome:** Annually train an additional 20,000 students in food, agriculture, and renewable natural resources, addressing the growing demand for a skilled workforce in these sectors. Students will be recruited with diverse backgrounds and experiences reflective of the U.S. population.

## Research Opportunities:

- Identify climate-smart practices that improve nitrogen use efficiency, soil fertility, structure, and resilience, enhancing our understanding of soil composition and processes.
- Reduce barriers to collaboration among farmers, communities, researchers, and policymakers to drive adoption of grassroots innovations for climate adaptation and resilience.
- Develop accurate metrics for quantifying greenhouse gas emissions, carbon sequestration, water usage, and biodiversity. Integrate climate modeling and scenario simulations to enhance the resilience of agriculture and natural resource systems.
- Apply gene-editing techniques to produce climate resilient crops and animals (e.g., improved water use efficiency, drought tolerance, heat tolerance). Develop feeds that reduce methane emissions from livestock.

## Funding Requirement:

To achieve our climate solutions goals and address other societal challenges in the U.S., it’s critical to allocate an additional \$1.9 billion annually in federal research funding to land-grant universities over the next decade. This annual increase is equivalent to just 1% of the total federal research and development budget.



## Risk of Not Taking Action:

- From increased wildfires to water-caused crop failures, agriculture is already experiencing the impacts of variable, changing weather conditions and extreme weather events. If we fail to adapt, these challenges will exacerbate, leading to reduced crop yields and increased harm to livestock, forests, and fisheries. Biodiversity will suffer as resistant weeds, pests, diseases, and wildfires become more prevalent, disrupting ecosystems and agricultural productivity. The degradation of water, air, and soil quality will intensify and cause severe consequences for food security, human and animal health, and environmental sustainability. Immediate action is needed to safeguard agriculture systems and the health of our planet.

Draft — Not for Distribution

Draft — Not for Distribution

# 2025-2035 agInnovation Research Roadmap



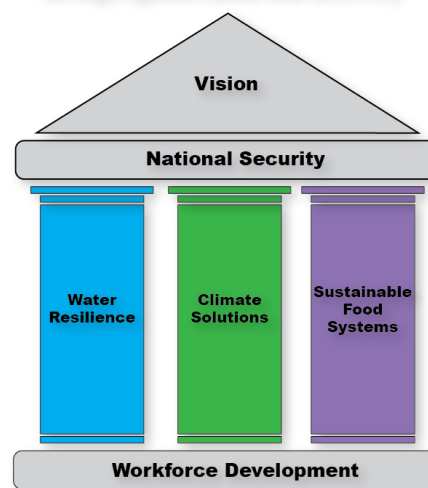
## Who We Are:

agInnovation is the nationwide system of agricultural research and state agricultural experiment stations at our nation's land-grant universities. These scientific research centers support highly trained and dedicated scientists who work with farmers, ranchers, suppliers, and processors involved in food production and other agriculturally related activities. Scientists develop and apply science-based solutions for improving the nation's agricultural systems, environment, public health, economy, and overall quality of life of its citizens. Roughly 70% of the publicly funded research and development is conducted by universities and other nonfederal institutions, and the impacts deliver \$20 to the nation for every \$1 invested.<sup>1</sup> These centers also have a critical role in training the next generation of scientists and skilled leaders who'll work in the food, agriculture, forestry, natural resource, and environmental sectors. For more information, visit [www.aginnovation.info](http://www.aginnovation.info).

## An “Outcomes-Driven” Research Roadmap for the Nation:

In 2023-2024, the agInnovation chair launched a transformative initiative to craft and implement a focused, 10-year platform for agricultural research. agInnovation leaders worked to develop a plan that sets forth clear goals and ambitious research outcomes aimed at tackling our most critical challenges — such as combatting climate change, improving water resilience, and ensuring sustainable food systems. Grounded in the foundations of national security and an aim to cultivate the next generation of experts, the roadmap outlines bold and measurable objectives achievable through strategic investment. To ensure accountability and maximize impact, the agInnovation leadership team devised an implementation strategy that includes regular progress updates and innovative funding approaches that harness agInnovation's expertise and partnerships.

*“A world where people and the planet thrive through agInnovation and discovery”*



## A National Imperative: Increased Investment in Agricultural Research:

Our nation faces a critical imperative: increasing investment in agricultural research. The outcomes outlined in our strategy are vital to national security, yet current funding levels jeopardize their achievement. Despite every \$1 invested yielding \$20 in economic benefits, federal support has declined, hindering our competitiveness against global leaders such as China, the current top investor in agricultural research and development.<sup>1</sup>

**To realize our ambitious 10-year goals, an additional \$1.9 billion per year in federal research funding is needed over the next decade, equivalent to only 1% of the total federal research and development investment.**

To realize our ambitious 10-year goals, federal research funding support for land-grant universities urgently requires an increased annual investment of \$1.9 billion — or \$19 billion over the next decade — equivalent to just 1% of the fiscal year 2023 total federal research and development budget. This includes bolstering core capacity and competitive grant programs at the U.S. Department of Agriculture's National Institute of Food and Agriculture, alongside aligned initiatives at the National Science Foundation, National Institutes of Health, National Oceanic and Atmospheric Administration, NASA, U.S. Department of Energy, U.S. Environmental Protection Agency, and other federal funding agencies. Securing this enhanced support is essential to advancing transformative research and safeguarding our nation's future prosperity.

<sup>1</sup> Nelson, K. P., & Fuglie, K. (2022, June 6). *Investment in U.S. public agricultural research and development has fallen by a third over past two decades, lags major trade competitors*. <https://www.ers.usda.gov/amber-waves/2022/june/investment-in-u-s-public-agricultural-research-and-development-has-fallen-by-a-third-over-past-two-decades-lags-major-trade-competitors/>

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# Sustainable Food Systems



## Overview:

Agricultural research is crucial for safeguarding both food and national security in the U.S. It delivers transformative innovations that ensure a sustainable and resilient food system across the country that's economically viable, socially just, and environmentally sound. Resiliency requires diversity of production, processing, and distribution scales and locations for supply chains across all agriculture and food sectors. Research is essential for a sustainable and resilient food system to meet the needs of current and future generations.

## Outcome Goals and Impacts:

- Achieve national and food security by producing 95% of our food domestically, increasing local and regional farm net incomes by 20%, and reducing food waste by 50%.
- Bolster supply chain resilience of food systems by strengthening local and regional markets to meet between 15% to 25% of the local demand, while reducing the carbon footprint of food transportation by 25%.
- Reduce food insecurity and decrease diet-related diseases by 40%.
- Increase the nutritional value of foods and safeguard food supply through the prevention of foodborne contaminants, plant and animal disease outbreaks, and pests during food production, processing, transportation, and retail.
- **Cross-cutting outcome:** Annually train an additional 20,000 students in food, agriculture, and renewable natural resources, addressing the growing demand for a skilled workforce in these sectors. Students will be recruited with diverse backgrounds and experiences reflective of the U.S. population.

## Funding Requirement:

To achieve our sustainable food systems goals and address other societal challenges in the U.S., it's critical to allocate an additional \$1.9 billion annually in federal research funding to land-grant universities over the next decade. This annual increase is equivalent to just 1% of the total federal research and development budget.



## Research Opportunities:

- Identify ways to repurpose agricultural byproducts and extend shelf life to minimize waste and enhance food security.
- Increase access to affordable, nutritious, and safe food, and develop science-based approaches to help individuals adopt healthier lifestyles.
- Conduct cost-benefit analyses, life-cycle analyses, environmental impact evaluations, and social cost-benefit analyses to track improvement of local and regional food system sustainability.
- Develop new surveillance tools and approaches for early detection of pests and diseases across the food chain.
- Develop diverse crops and livestock genetics that increase nutritional value and resistance to diseases and pests, including deploying new biotechnologies, information technologies, and other innovations that take advantage of new and changing environments.



## Risk of Not Taking Action:

- Food system failures and disruptions caused by global conflicts, pandemics, economic downturns, geopolitical turmoil, and climate change will significantly threaten national security and lead to increased food supply interruptions, food spoilage and waste, food insecurity and hunger, diet-related chronic and foodborne diseases, environmental degradation, economic instability, and mass migration of people across the globe.

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# Water Resilience

## Overview:

Safe and readily available water is critical to agricultural production, public health, and our environment. Research on water resiliency is needed to advance agricultural resilience and conservation efforts to secure the long-term sustainability of water sources for agriculture, communities, and the environment. Research is also needed to develop practices and technologies that ensure water resiliency and conservation amid a changing climate with more frequent and extreme climatic events, such as floods and droughts.

## Outcome Goals and Impacts:

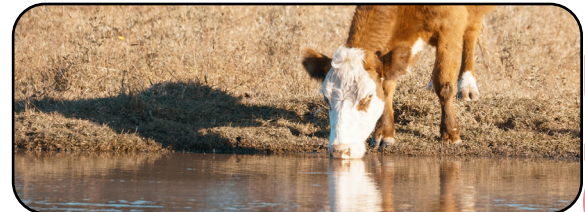
- Increase water use efficiency by 50% across food and agriculture systems (i.e., production and processing).
- Enhance the health and U.S. Environmental Protection Agency compliance of our rivers, lakes, streams, groundwater, and coastal waters by reducing water quality impairment within agricultural watersheds by 40%.
- Enhance agricultural system resilience by reducing agricultural production losses to waterlogging, flooding, and drought by 50%.
- **Cross-cutting outcome:** Annually train an additional 20,000 students in food, agriculture, and renewable natural resources, addressing the growing demand for a skilled workforce in these sectors. Students will be recruited with diverse backgrounds and experiences reflective of the U.S. population.

## Funding Requirement:

To achieve our water resilience goals and address other societal challenges in the U.S., it's critical to allocate an additional \$1.9 billion annually in federal research funding to land-grant universities over the next decade. This annual increase is equivalent to just 1% of the total federal research and development budget.

## Research Opportunities:

- Develop and deploy an effective multi-year strategy that prioritizes water monitoring and data collection, innovative practices and technologies, and policy interventions that improves agricultural water use efficiency, flood tolerance and mitigation, water reuse, crop and livestock productivity, profitability, and climate change resiliency.
- Develop water-efficient and flood- and drought-resistant crops.
- Develop and implement AI-driven irrigation systems.
- Develop best management practices for water conservation, reuse, and quality.



## Risk of Not Taking Action:

- Less water will be available for drinking and home use in rural and urban communities, as well as for agricultural production. Water levels in streams and lakes will further decline and negatively impact wildlife and recreation.
- Increased withdrawal of groundwater will exacerbate land subsidence that damages community infrastructure (e.g., roads, bridges, water wells, buildings, levees), leading to a heavy financial burden on communities, loss of flooding protection, and the decreased capacity of aquifers to store water.
- The quality of water used for drinking, irrigation and recreation will significantly decline, resulting in negative public health consequences.