

FOR IMMEDIATE RELEASE

North Dakota wins up to \$160 million in federal funding to support innovation, jobs, and economic growth in agriculture technology (AgTech)

Winning team led by North Dakota State University (NDSU), North Dakota Tribal College System, Greater Fargo Moorhead Economic Development Corporation, Fargo Moorhead West Fargo Chamber Foundation, and Grand Farm

FARGO, ND (January 29, 2024) – Recognized as an international leader in agriculture technology (AgTech), a groundbreaking coalition of five North Dakota entities today was named as an award winner for up to \$15 million over the next two years with potential to receive up to \$160 million over 10 years as part of the U.S. National Science Foundation (NSF) Regional Innovation Engines program. The competitive award will fund programs that help solve food insecurity and expand economic opportunities for not only more people and organizations, but for increasing the growth of existing crops and introducing new crops to market. The award highlights the state’s talent pool in AgTech and recognizes the unique collaborative partnership that came together to show how North Dakota feeds the world.

“This award of up to \$160 million over 10 years is a major investment in NDSU and Grand Farm’s efforts to transform the future of ag production. By securing this funding for the North Dakota Advanced Agriculture Technology Engine, in addition to supporting their continued partnership with ARS (Agricultural Research Service), we are empowering this collaboration to give farmers and ranchers tools that will strengthen their operations, reduce costs and improve yields,” said **U.S. Senator John Hoeven**. “That’s good not only for the production of food, fuel and fiber, but it will spur growth for a variety of industries, including our state’s dynamic tech sector and manufacturers. That means North Dakota and our nation will continue to have a competitive edge in the global marketplace, while ensuring a high-quality and low-cost food supply for American consumers.”

“This team has earned this win by showing what North Dakota brings to the world: the brightest minds and leaders in AgTech, food production, biotech and genomics,” said **North Dakota Governor Doug Burgum**. “Our agriculture community has come together across all 53 counties to demonstrate how talented people are driving innovation that improves yields, efficiency and profitability for nations everywhere.”

“The inaugural NSF Engines awards demonstrate our enduring commitment to create opportunity everywhere and enable innovation anywhere,” said **NSF Director Sethuraman Panchanathan**. “Through these NSF Engines, NSF aims to expand the frontiers of technology and innovation and spur economic growth across the nation through unprecedented investments in people and partnerships. NSF Engines hold significant promise to elevate and transform entire geographic regions into world-leading hubs of innovation.”

The regional partnership, called *Food systems Adapted for Resiliency and Maximized Security* (FARMS), was named an award winner out of 188 concept outlines originally submitted throughout the U.S. The FARMS program was recognized for the way it can help support what

The White House called “innovation in geographies that have not received the full benefits of technology advancement in past decades.” This federal investment of potentially up to \$160 million over 10 years will be used to tap into and expand existing networks and strengths in North Dakota and offer a platform for new ideas, entrepreneurs, and businesses.

“This award has the potential to transform our regional workforce – especially for students, recent graduates, and working adults pursuing careers in agriculture, engineering, IT, AI, data science, and more,” said **NDSU President David J. Cook**. “It will retain talent in our local economy who will be positioned to innovate in unprecedented ways. Now that North Dakota is recognized as a center of agriculture technology, the research from this partnership will make a difference in our local communities and far beyond the region. We deeply appreciate the commitment of our partners who shared their expertise, vital connections, and imagination to craft a submission focused on the future of our workforce and the impact of our state. I congratulate all those who will make this a transformative success over the next 10 years.”

“The North Dakota Tribal College System is thrilled to be a partner in the FARMS award, which we anticipate will be a systems-changing initiative,” said **Twyla Baker of the North Dakota Tribal College System and President at Nueta Hidatsa Sahnish College**. “The partners we have at the table working together, have the power to craft and execute a dynamic shift in the way we do agriculture in North Dakota. The project brings together sectors that perhaps have not had the opportunity to work in close proximity before. Throughout our planning stages, the conversations we’ve had have sparked moments of inspiration and innovation. The Tribal Colleges look forward to the joint visions we can create through the FARMS grant for future generations, incorporating ancestral knowledge from Native peoples, and innovation from North Dakota’s Tribal College campuses as well.”

“FARMS brings great potential to attract talent and create opportunities for upskilling in our region’s workforce. The project’s inclusive vision will lead to equitable agricultural opportunities for new Americans, Tribal citizens, veterans, and so many others looking for opportunities in AgTech,” said **Jenna Mueller, Executive Director of the FMWF Chamber Foundation** which will co-lead education and workforce development on the project and brings expertise running the Good Jobs Challenge grant from the U.S. Economic Development Administration. “Our region has a wealth of AgTech pioneers and we’ll tap into their expertise to grow the next generation of talent. This work will not only bolster North Dakota’s workforce and economic development but also cement its position as a leading force in the AgTech landscape.”

“We know that improving the way we feed a growing population under changing climate and geopolitical conditions ultimately leads to strengthened national security. And that’s precisely what the Fargo-Moorhead metro area of North Dakota has long been a leader in developing: agriculture technology and innovation with locally founded companies that promote American interests,” said **Ryan Aasheim, Chief Business Development Officer of the Greater Fargo Moorhead Economic Development Corporation**. “We intend to produce more stories like those of local Phoenix International and Appareo Systems which ultimately merged with global leaders John Deere and AGCO, respectively. The FARMS Engine will help us align resources, partners, and capabilities to amplify, accelerate, and enhance the level of innovation and commercialization coming out of our premier AgTech innovation hub.

“The AgTech ecosystem in North Dakota has long been ready for FARMS. Our producers, entrepreneurs, businesses, and researchers have been coming up with innovative ideas for decades,” said **Brian Carroll, Chief Innovation Officer for Emerging Prairie and co-founder of Grand Farm**. “FARMS will be anchored in the middle of this wave of innovation and will benefit from it and will provide opportunities for additional breakthroughs moving ahead.”

The collaboration between all five organizations—NDSU, the Tribal College System, the Chamber, the EDC, and Grand Farm—show the FARMS coalition has statewide reach in AgTech, biotechnology and genomics, and can bring those innovations to market with the most robust tech transfer infrastructure in the state through the NDSU Research Foundation. Many additional partners and supporters have already contributed to the success of this project, including educational institutions supporting R&D and workforce development in North Dakota (Bismarck State College, United Tribes Technical College, University of North Dakota) and Montana (Montana State University), Nueta Hidatsa Sahnish College (NHSC) and North Dakota State College of Science (NDSOS). FARMS is designed to promote engagement with more organizations as projects are implemented.

“The NSF Engines award supporting FARMS will turbocharge the existing momentum and energy of North Dakota’s innovation and entrepreneurial ecosystem so that everyone in the world knows of the amazing opportunities and resources existing here for AgTech entrepreneurs,” said **Colleen Fitzgerald, Vice President for Research and Creative Activity at NDSU**. “FARMS will be a magnet for new startups given North Dakota’s business friendly environment. This work over the next 10 years is about accelerating economic growth for North Dakota.”

In its winning proposal, FARMS outlined solutions that will:

- Ignite inclusive, market-driven discussions about food security and equitable agriculture with a focus on North Dakota and Tribal Nation agricultural communities.
- Develop robust crop varieties and cost-effective sensors to capture data useful to producers.
- Collaborate with local AgTech leaders, researchers, startups and the global AgTech industry to identify and prioritize opportunities.
- Accelerate investments and quickly bring solutions to market.
- Encourage involvement and investment from the private sector, non-profit organizations, and the broader North Dakota agricultural community.
- Establish a thriving AgTech entrepreneurial ecosystem that significantly enhances food security and equitable agricultural opportunities.
- Create local and regional high-wage jobs.

- Propel critical technologies for advanced agriculture through scientific and engineering innovations centered around key areas, including novel genomics studies, advanced predictive climate modeling, scalable on-farm data collection management and utilization including reconfigurable agile data sensor networks and communication networks, edge and cloud computing, real-time analysis of acquired data via artificial intelligence and machine learning, with a focus on last acre connectivity, and will advance understanding of the diffusion of AgTech innovation through human-centered approaches.

The NSF Engines: North Dakota Advanced Agriculture Technology Engine is supported by the U.S. National Science Foundation under Award #2315315.

About FARMS: The vision of FARMS is a collaborative ecosystem created to solve global food insecurity and to create equitable agricultural opportunities. FARMS is powering ideas that feed the world and will create a global AgTech engine characterized by a flourishing ecosystem where new knowledge is co-designed into new technologies, services, and startups to address stressors impacting food insecurity and to establish equitable agricultural opportunity. Led by NDSU, FARMS is composed of a core group of partners including Grand Farm, the Fargo Moorhead West Fargo Chamber Foundation, and the Greater Fargo Moorhead Economic Development Corporation. The FARMS ecosystem includes the North Dakota Tribal College System, the North Dakota Tribal communities, North Dakota universities and colleges, industry, non-profits, and other regional research universities. Through AgTech innovations, FARMS holds the potential to improve how the nation produces food for the world.

About NSF Engines: The National Science Foundation (NSF) in partnership with other Federal agencies has managed the NSF Engines competition. Its funding comes from, in part, the CHIPS and Science Act. FARMS was the only agriculture-based project among the finalists.

About NDSU: North Dakota State University plays a central role in research, project management, and overall coordination of FARMS. A Land Grant R1 ranked institution with \$175 million in research expenditures in FY 2022 alone, NDSU ranks 99 among 637 public universities by the National Science Foundation's Higher Education Research and Development Survey (HERD), the university boasts research excellence in the areas of agricultural sciences, physical sciences, cybersecurity, life sciences, and energy and water security.

About The North Dakota Tribal College System: Chartered by federally recognized Tribal governments, North Dakota's Tribal colleges teach and preserve culture and language as a component of the academic curriculum. 1994 Land Grant Tribal colleges are public, affordable, non-profit post-secondary institutions accredited by the Higher Learning Commission, the same as state post-secondary institutions. Tribal colleges proactively collaborate with the North Dakota University System to enhance students' academic experience that allows for seamless transfers.

About Grand Farm: Grand Farm is involved in project management of research, testing, and innovation related to agricultural technologies and practices. Powered by Emerging Prairie, Grand Farm is a collaborative initiative focused on accelerating research, innovation, and

technology in the agriculture industry. A collaborative network of growers, technologists, corporations, startups, educators, policy-makers, and investors working together to solve problems in agriculture through AgTech and innovation, Grand Farm works with small businesses, large corporations, startups, and research institutions to pave the way for applied technology to solve problems in agriculture, the organization helps growers achieve efficiency and effectiveness to nourish a hungry world through a robust partnership program.

About Fargo Moorhead West Fargo Chamber of Commerce: The organization will support FARMS in workforce engagement, fostering industry engagement, facilitating networking, and promoting the project's impact on the region. The FMWF Chamber Foundation currently manages the federal Good Jobs Challenge in the region. This program leverages the group's expertise in education and workforce development and is aimed at attracting talent and creating opportunities for many with an inclusive vision to provide equitable agricultural opportunities for New Americans, Tribal citizens, veterans, and others.

About the Greater Fargo Moorhead Economic Development Corporation: The Economic Development Corporation will contribute to the economic development aspects of FARMS and is responsible for promoting the project's outcomes for the local economy. The GFMEDC cultivates an environment where businesses can start up, flourish, and thrive and has more than 75 years of serving the region's economic development needs. The GFMEDC board, staff and more than 115 private and public organizations are dedicated to the regional economy's biggest driver – primary-sector companies.

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