NDUS Economic Diversification Research Fund (EDRF) EAC Meeting October 18, 2024

EAC members

Kenton Kaufman (NDSU representative) Paul Steffes (ND PUI representative) Kathryn Uhrich (UND representative)

Other Participants

Sheri Anderson: NDSU AVPR

David DeMuth: Valley City State University

Colleen Fitzgerald: NSDU VPR

Mark Gorenflo: NDUS, Chief of Staff and Director of Innovation

Scott Snyder: UND VPR

Report

The External Advisory Committee (EAC) reviewed the documents provided and discussed in detail with the NDUS participants.

First and foremost, the EAC members *praise the legislative vision to create and support the Economic Diversification Research Fund* (EDRF). In 2023, the EDRF allocated \$1.25M to UND, \$1.25M to NDSU, and \$05.M to the 9 primarily undergraduate institutes (PUIs). Several other states have sovereign wealth funds (see Appendix A), yet North Dakota has an opportunity to take their investment to the next level. North Dakota's investment and commitment to higher education will provide dividends for generations to come in terms of innovation, economic development, and meeting the workforce needs of the State.

Second, the *EAC members applaud the significant amount of work completed by the 11 state institutions to allocate these funds within a short time period*. Without an established process in place, these institutions allocated resources quickly and equitably. Yet, an expedient outlay of funds can often lead to projects with short-term impact. With the goal of significant impact, fund allocations require a consistent funding stream over a longer term. EAC member and entrepreneur, Paul Steffes, shared his own experiences – his company was able to make the Bakken wells more efficient today, using technology and techniques developed years ago.

While the funded projects are important, the economic impact will not be as significant as intended by the legislature - if EDRF does not provide funding that extends beyond the biennial budget. Summarizing the legislative intent of HB1003, its purpose is to: stimulate economic activity in multiple ways; innovate and create new technologies, concepts and products; promote job creation; enhance health care outcomes; address revenue loss associated with the fossil fuel sector; and provide experiential learning. To achieve the legislative intent and the overall goal of economic diversification, the EAC recommends intentional, focused, significant, and multi-year support. Specifically, we advocate a focus on workforce development though a research lens.

The initial funding of \$2.5M towards the EDRF is a reasonable starting point to establish protocols for project proposals and to define expected outcomes, timelines, and/or milestones. However, true economic impact will arrive with scale. The internal committee members suggested \$25M as potential target, whereas the EAC members reasoned that \$250M+ should be the target with levels of funding released as milestones are achieved. While this target may seem high, this investment is needed to "move the needle" for ND's research enterprise. When evaluating the benchmarks of success, we learned that North Dakota is in the lowest quartile in the US in multiple research and development (R&D) categories that measure innovation outcomes. According to the Science and Engineering State Profiles Science compiled by the National Foundation (NSF)

(www.nsf.gov/statistics/states/interactive/show.cfm?stateID=27,35,40,53&year=2022) for 53 jurisdictions (i.e., all US states and territories), North Dakota ranks #49 in higher education R&D performance, #51 in Small Business Innovation Research (SBIR) awards provided by the US Small Business Association, and #47 in utility patents issued to North Dakota residents. Amongst our peer states, North Dakota ranks in the lower quartile of EPSCoR programs; this ranking is particularly significant as the Established Program to Stimulate Competitive Research (EPSCoR) target states that have low R&D funding then aims to assist those states in talent development and local infrastructure. With enhanced support from EDRF, North Dakota can "move the needle" for the State's research enterprise and economic diversification.

The *vision for the EDRF is to create a substantial industry presence in North Dakota that does not exist today through university innovation, partnership and technology transfer.* To maximize the visionary language and legislative intent, increased support will be needed. Moving forward, we recommend that NDSU and UND focus on a few higher-impact projects and be given the flexibility to locally manage the fund allocation. Further, we recommend that the 9 PUIs develop a shared template (or process of project management) and also have the flexibility to locally manage their funds. Lastly, funding must be allocated towards project management and technology transfer expertise to manage the protocols, develop reporting processes, and build the infrastructure needed to create a transformative cycle of innovation.

In summary, the institutions' use of EDRF funds satisfies the legislative intent. However, the impact of the EDRF funds on economic diversification will be limited without legislative changes to the program. To have a significant impact on the ND economy, the EAC recommends: 1) increased and sustained funding levels from the EDRF; 2) giving autonomy to the institutions to allocate funds; and 3) linking levels of EDRF funding to milestones and outcomes of the institutions' projects.

Appendix

A: Comparison of State Sovereign Wealth Funds and Their Uses