

Testimony for the Senate Workforce and Higher Education Committee on The Ohio Federal Research Network (OFRN) – May 9th, 2023

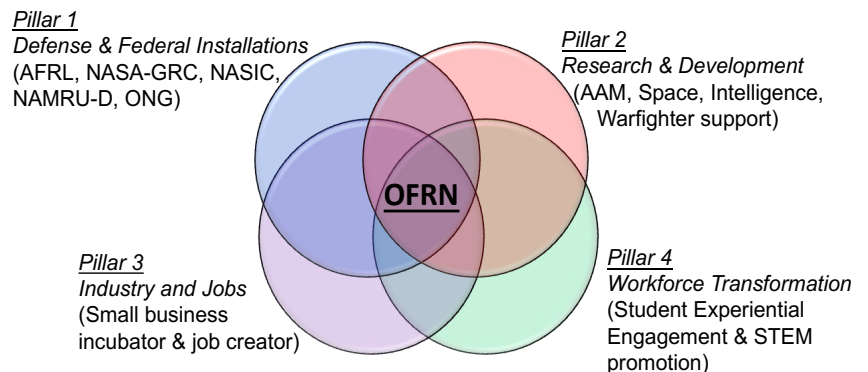
(Slide 1) Chair Cirino, Vice-Chair Rulli, Ranking Member Smith, and members of the Workforce and Higher Education Committee. I am honored to be in this hearing room to present testimony on the Federal Research Network line item (GRF ALI #235578) in the Ohio Department of Higher Education (ODHE) budget for SFY 2024-2025. We were very pleased to see that the Sub. H.B. No. 33 has increased the budget line item to \$17.54M over the biennial budget. I believe my testimony today will illustrate why this program is a great investment for the State of Ohio.

The Ohio Federal Research Network (OFRN - <https://ohiofrn.org>) is a program administered by Parallax Advanced Research Corporation, a non-profit, in collaboration with The Ohio State University and funded by the Ohio Department of Higher Education. This is a unique program that no other State in the Union is currently operating, but many would like to duplicate.

(Slide 2) OFRN was codified in HB 64 (ORC 193.03-09) of the 131st GA, SFY 2015-2016 as outlined in the Ohio Federal Military Jobs Commission Report. The purpose of the OFRN is to stimulate the Ohio economy through university-industry research collaborations that meet the technology requirements of our Federal partners in Ohio — NASA-Glenn, Air Force Research Lab (AFRL), Naval Medical Research Unit - Dayton, the National Air & Space Intelligence Center (NASIC), and the Ohio National Guard. The teams that come together for funding are comprised of two universities, an industry partner with a physical location in the state, and one of the federal partners mentioned previously.

(Slide 3) The **goals of the OFRN** are to (1) to stimulate Ohio's innovation economy by building vibrant, statewide university/industry/federal research collaborations in technical areas that capitalize on key state investments; (2) create leading-edge technologies that drive job growth for our state; (3) expand to additional US Government departments and agencies for each research effort; and (4) to move Ohio into the top 10 for federal research and development funding.

(Slide 4) Additionally, the OFRN is a force multiplier for the Governor's Aerospace and Defense Pillars as illustrated to the right. Each pillar as identified by the Governor in italics maps directly into the various focus areas and goals for the OFRN. I know that Pillar 4 is a point of emphasis for many of you and I will explain the Student Experiential Engagement program on a subsequent slide.



Under the guidance and support of the ODHE, the OFRN has successfully demonstrated the pathway to building on Ohio's aerospace and defense ecosystem and transitioning it through innovation and collaboration utilizing a unique partnership of Ohio universities, industry, and the Federal research laboratories.

(Slide 5) Quoting the World Economic Forum in its highly touted Global Competitiveness Report:

“In the long run, standards of living can be expanded only by technological innovation ... This requires an environment that is conducive to innovative activity, supported by both the public and the private sectors.”

The following outcomes from the first 5 Rounds highlights the capability of this program to be transformational in supporting the growth of Ohio's industry sector.

Return on Investment

- ✓ \$51.4M State of Ohio Investment
- ✓ \$355M+ Follow-on Federal Funding Awarded (~7:1 ROI)
- ✓ \$36M Cost-share from the participants

Improvement in State Research & Development Efficiency for Ohio

- ✓ 13 Spinouts created
- ✓ 35 R&D Projects Funded
- ✓ 340+ Direct Jobs Created
- ✓ ~1100+ Indirect Jobs Created (Economic Policy Institute multipliers)
- ✓ 12 IPs Created, +2 Pending

Network/Collaborators/Partners in Ohio

- ✓ 5 Government Agencies
 - AFRL, NASIC, NASA-GRC, NAMRU-D, ONG
- ✓ 97 Industry Companies
- ✓ 21 Academic Institutions

In addition to the above metrics, the current funding round incorporated a unique requirement for the project teams to be focused on a workforce development aspect. This part of the program, called the Student Experiential Engagement (SEE), required the teams to incorporate students into both the research and technology development as well as the business aspects of the project. The students range from undergraduates to post-graduate researchers with the aim of keeping these talented individuals in the State of Ohio after graduation. Even though this part of the OFRN program only started in early 2022, we have already witnessed several successes where the industry partner on the project has hired a student as a full-time employee

after graduation. Additionally, more than 69 students have been engaged in the seven projects currently funded in Round 5. This part of the overall program will be continued into Round 6 with a continued emphasis on a workforce requirement.

(Slide 6) Round 6, which will be funded by this State budget proposal, will focus on the research and development of topics that match up well with the new technology and industry being developed in Ohio. Examples of which are the new Intel Fab, Honda Battery R&D plant, Hyperion fuel cell manufacturing, commercial space operations in Low Earth Orbit, Digital Engineering, Hypersonics and Quantum Sensing Technologies. The OFRN will provide opportunities for two- and four-year institutions to compete on projects ranging from \$750K to \$1.5M with a specific focus on technology transition from the Universities to industry and the government.

Ohio's Federal Partners will be essential to the integration, funding, and commercialization of the types of technologies developed over the next several years. The OFRN will use the strategy and guidance developed by our Federal, State and Industry partners to make Ohio the technological and innovation destination for the global marketplace.

(Slide 7) By continuing to fund the OFRN, we will further enhance the drive to additional collaboration between universities and small businesses. We will also direct applied research to align with Ohio's four DOD and NASA Research enterprises, and further partner with the State to bring more emerging defense-oriented and technology focused projects and federal funding to Ohio. These projects are critical to keeping the talent that is developed at our institutions of higher learning in the state.

This slide illustrates the touch points across Ohio with our academic, industry, and federal partners as overlaid on the JobsOhio regions and highlighting the four innovation districts. As can be seen by the red push pins indicating industry partners and the green push pins indicating academic institutions, you can see how we have worked to be as inclusive as possible, and we are committed to further our reach across the state during the next biennial budget cycle.

As I mentioned in the beginning, we are honored and pleased that the Governor and the Chancellor are willing to continue this program into the next budget cycle in support of applied research, innovation, and technological development to deepen the linkages between academia, industry, and government. Increasing the funding by additional \$3.6M per year from the originally submitted biennial budget will allow the OFRN to at least double the number of teams doing transformational work in Ohio.

(Slide 8) Chair Cirino, Vice-Chair Rulli, Ranking Member Smith, and members of the Workforce and Higher Education Committee thank you for your time today, and I stand ready to answer any questions you may have on the Ohio Federal Research Network.