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North Dakota State Board of Higher Education
Research and

- a. Dr. Fitzgerald provided a presentation on what high performance computing is and what research universities are doing.
- b. Advanced research computing can be done in support of or related to research activities. The three areas of advanced computing include high -throughput computing, high performance computing (supercomputing), and big data visualization.
- c. The goal of research computing facilitation is to advance researcher capabilities and accelerate scholarly discovery. Major facilitation activities include promoting awareness of resources and potential impacts, engagement with the researchers to understand their needs and advise on those computing strategies, ongoing support of researchers executing projects on computing resources, education and training of researchers and researcher students, liaising the researcher connections, and advocacy for research computing facilitators.
- d. Existing research computing needs include on campus computing for artificial intelligence and machine learning, and data storage, curation, and data science.
- e. UND and NDSU both have high performance computing resources and NDSU's is CCAST – Center for Computationally Assisted Science and Technology. CCAST provides advanced cyberinfrastructure for computational research and education at NDSU and beyond. Basic services are provided at no charge and dedicated services are available at cost.
- f. CCAST hardware is approximately 12,000 CPU cores, 70 GPUs and research data storage totaling 10 petabytes of capacity. The compute clusters include Thunder Cluster (Intel CPUs) and Thunder Prime Cluster (AMD CPUs).
- g. CCAST has trained over 600 students, staff, and faculty at NDSU and at other institutions in North Dakota. CCAST has provided internships to more than 40 students.
- h. Member Bye asked what is being done to get UND to scale faster and what the relationship between UND and NDSU looks like and what the plans are moving forward. Dr. Fitzgerald shared that UND has been able to take advantage of NDSU's computing power in the biomedical space. Dr. Marc Wallman shared that the primary collaborations have been through the research program at NDSU. Dr. Fitzgerald stated that both UND and NDSU have their own computing

- b. Similar to the StageNet model from the 90s, a similar model has been created for digitation and AI. NDUS is working with NDIIT to build out this plan.
 - c. Grand Energy, alternatively Intelligent Energy, will be addressed at the Governor Strategy Review. Grand Energy ensures the Bakken is competitive for a generation to come through automation, robotics, AI, and an upskilled workforce.
 - d. A third topic that emerged is a Dakota Humanities Academy. Faculty can collaborate across the system to provide high quality liberal arts courses to online NDUS students. Tied into this is the development of civic and social/soft skills. Feedback from employers is that they need workers with critical thinking skills, communication skills, and are engaged in the community. All of these skills can be advanced through a Dakota Humanities Academy.
 - e. A fourth topic that emerged is the National Defense Triad (MAFB, GFAFB, NG) and Veterans. Discussions have centered around how to attract and support these student demographics.
 - f. Other emerging, crosscutting topics include student and faculty: tenure study, community college tenure, behavioral health, and BSC degree expansion, as well as cultural issues: guns, gambling, and marijuana.
6. Large IT Project Oversight Report 2023 [4th Quarter](#)

- b. Starting in May , the Chancellor will begin working with the campus presidents to update their accomplishments towards their goals from last year. In later May and June, the presidents' evaluations will be conducted for the 4 -year research institutions and will begin setting goals for next year. In early fall the presidents' evaluations will be conducted for the 2 -year institutions.
 - i. Chancellor Hagerott provided feedback regarding Co -chair Ryan's work on the presidential compensation study and changing the renewal period for presidents' contracts to three years versus two years. Co -chair Ryan discussed moving to a three- year cycle , which would be another way we could reward good people.
 - ii. Co- chair Bye asked if changing to a three- year cycle would affect the Chancellor's evaluation process and timeline and would yearly evaluations still occur. Chancellor Hagerott shared that annual evaluations would still occur.
 - 1. Co- chair Ryan moved, Member Warford seconded, to discuss moving the presidents' contract period to three-