



Griffiss Institute 2024 Operating Plan and Budget

Date: December 18, 2023
To: Griffiss Institute Board of Directors
From: Heather Hage
President & CEO
RE: Griffiss Institute Operating Plan and Budget 2024

The goal of Griffiss Institute (“GI”) management in delivering an annual operating plan each year is to effectively communicate our organizational intentions with clarity for our board, staff, and stakeholders. This Griffiss Institute 2024 Operating Plan and Budget is an overview of the corporate and programmatic portfolio of mission critical activities we aim to deliver over the next twelve months.

Our annual planning and budgeting process helps us to continuously sharpen our shared understanding of mission, strategies, goals, and values as we evolve; to test and justify our strategic investments and risk-based decision-making; and to hold ourselves accountable to delivering measurable results to the communities who rely upon us. In every opportunity for action, we endeavor to test mission alignment, articulate clear outcomes, monitor and manage performance with quantitative and qualitative measurements, exercise strong fiscal stewardship, and adhere firmly to our core values.

The Griffiss Institute mission is to attract and develop the next generation of STEM talent and disruptive technologies that will strengthen U.S. national security and create economic opportunity for our region, state, and nation. In 2024, we continue the GI’s legacy of service to our regional and national defense industrial base with keen awareness of the changing federal, state, and local government landscape surrounding American national security and economic competitiveness. Several, related trends inform and drive our strategic focus for 2024, including:

- Significant transitions to wartime posture in key regions across the world, with a domestic focus on military readiness and an increasing sense of urgency to modernize aging systems.
- Geopolitical forces driving macroeconomic projections for the growth of the advanced semiconductor manufacturing sector in the United States, especially in the region surrounding our home base in Upstate New York.
- A tight domestic technical labor market for occupational profiles in computing, mathematics, and engineering, from the skilled trades to executive R&D leadership.
- Historic federal and state investments in science, translation, transition, and commercialization, especially in fields directly aligned with domestic manufacturing, computing, and security.
- A continuous trend of defense leadership restructuring and centralizing program offices and programming in GI’s areas of core competency, including technology transfer and transition programs;

primary and secondary STEM education and career exploration; and early-stage venture development and incubation.

- A shifting talent pool with evolving workplace expectations and new compacts between organizations and individuals.
- Regional demand for incubation space and international demand for access to specialized facilities and knowledge in cybersecurity, quantum information science, and trustworthy autonomous systems.

Our increasingly solid reputation for delivering results and our performance thus far as we near the end of 2023 indicate that we are moderately equipped to capture new opportunities to advance our mission in these spaces for the Mohawk Valley and national communities we serve, with internal areas of improvement commanding attention and new investments in early 2024. A key internal challenge and transformational opportunity this year will be to cultivate ruthless mission focus with a highly aligned corporate culture. Business demands from existing and new partners also bring new business requirements, while GI's legacy systems and practices must continuously evolve to maintain a strong system of internal controls and culture of compliance.

Our strategic project portfolio for 2024 is organized by four themes aligned with the foregoing observations:

- 1.) Brand and Reputation
- 2.) Corporate Infrastructure
- 3.) Community Impact
- 4.) Core Strength and Capacity Building

An overview of the critical strategic projects for 2024 that are aligned with these themes begins on page 3.

Strategic and sponsored projects are complementary initiatives. The projects and programs for which we have committed a new or existing external sponsor, partner, or donor to provide material financial support or other resources begin on page 9. Each new sponsored project to which we have committed is aligned with our mission to attract and develop the next generation of STEM talent and disruptive technologies that will strengthen U.S. national security and create economic opportunity for our region, state, and nation. We expect the scope and revenue of our program portfolio to continue on a steady growth trajectory in 2024.

Woven throughout these projects is an intention to employ the following key management strategies in 2024:

- 1.) Stay Strong. Continue to diversify resources and revenue sources.
- 2.) Adapt. Expand the scope, quality, and impact area of mission-aligned experiential learning, technology transfer, and incubation programs for the defense industrial base.
- 3.) Be Lean. Continuously improve effectiveness, efficiency, and compliance in our operational core.
- 4.) Become the Best. Cultivate a culture-first focus to become the best place to work for our treasured employees, residents, and guests.

Following brief descriptions of our project portfolio is our proposed budget for 2024 beginning on page 15, preceded by a summary of our budget objectives and major assumptions, and followed by a series of illustrations of our forecasted revenue, expenses, labor distribution, and rates. 2024 promises to be another year of exceptional growth and impact for the Griffiss Institute.

This Griffiss Institute 2024 Operating Plan and Budget proposal is respectfully submitted on behalf of the Griffiss Institute Executive Leadership Team of Seth Mulligan, Melissa Tallman, Todd Humiston, Tracy DiMeo, and Mike Wessing, with thanks for the dedicated support of our board, staff, and stakeholders who put the passion behind our purpose.

2024 STRATEGIC AND SPONSORED PROJECT PORTFOLIO

Part I: Strategic Projects

Brand & Reputation		
Strategic Initiative	Sponsor	Overview
GI Website	GI Strategic Indirect	<p>In the upcoming year, our revised website will prioritize agility and relevance through a comprehensive operating plan for:</p> <ul style="list-style-type: none"> • SEO Excellence: <ul style="list-style-type: none"> ○ Adapting swiftly to SEO trends and algorithm changes. ○ Conducting regular keyword research and optimization efforts. • Content Strategy: <ul style="list-style-type: none"> ○ Regular content audits and publication of multimedia-rich, trend-aligned content. ○ Engaging storytelling for compelling narratives. • Innovare Integration: <ul style="list-style-type: none"> ○ Careful selection, adaptation, and integration of relevant Innovare content. ○ Highlighting innovations and success stories with transparency through proper attribution. • User-Centric Approach: <ul style="list-style-type: none"> ○ Ensuring seamless functionality across devices and optimized page load times. ○ Acting on user feedback and analytics insights to enhance the overall user experience. • Robust Security Measures: <ul style="list-style-type: none"> ○ Regular security audits, updates, and implementation of the latest protocols. ○ Establishing reliable data backup procedures. • Analytics-Driven Optimization: <ul style="list-style-type: none"> ○ Utilizing web analytics for performance tracking and generating periodic reports. ○ Refining content strategy based on user engagement data. • Social Media Synergy: <ul style="list-style-type: none"> ○ Integrating social media sharing options and cross-promoting website content on social channels. ○ Actively engaging with the audience on social media platforms
Project Culture	GI Strategic Indirect	<p>Griffiss Institute is growing. Creating a culture where people thrive is a culture where businesses thrive. Project Culture seeks to empower Griffiss Institute employees with the knowledge and resources to create a ripple effect that can be felt beyond our offices and impact our programs, customers, community, and potential partners. Project Culture's end goal is to transform our teams to support and coach each other; enable our teams to offer up new ideas and collaborate. Building employee morale through Culture Club and All Hands is a crucial aspect of this project.</p>

Events Management & Annual Gala Fundraiser	Philanthropy	From day-to-day events management, we see and hear the need to elevate the experience within IAC to accommodate increasing demand for socials, workshops, and programs. A signature annual fundraiser event will build community and catalyze giving to regional STEM programs.
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Infrastructure		
Strategic Initiative	Sponsor	Overview
Innovare Studios	GI, NYS C210227	Offer a physical incubation zone for startup companies inside the GIBI and HUSTLE programs. The zones would be at the farthest west annex, extra offices in the first floor, and some expansion space into East Bay, to offer about 9000 sq ft of incubator space.
Quantum Hardware	AFRL PIA 1001	Provide an environment and capability that will house a Trapped Ion Network node that is sharable with academia and industry, enhancing and enabling the quantum T2 mission with AFRL/RITQ.
Wireless Upgrade	GI Strategic Indirect	The wireless access to the internet is the lifeblood of an interactive innovation campus. This requires a modern, flexible, fast, and reliable wireless infrastructure. Today our system is not optimized and not as resilient as it should be. This project will install modern, deconflicted wireless routers and endpoints, as well as software optimizing traffic management.
East Bay Expansion	GI Strategic Indirect	As the mission of the GI continues to show success, the original core space within the IAC has reached capacity. This initiative is a three - phase approach to expanding the GI mission into the east bay/hangar of building 100. Phase one is the planning and development of an environment to house a Trapped ION Network node for the purpose of sharing the technology with academia and industry with the hopes of enhancing the T2 mission of quantum technology. Also, phase one is moving the ORION/IoT lab into an approximately 1000 sq foot facility within the east bay to increase the opportunities for ORION in T2 activities. Phase 2 and 3 will be the requirements finding/design/build of the east bay to meet the mission needs for expansion of the IAC and the GI's mission.

Community Impact

Strategic Initiative	Sponsor	Overview
Expand Regional STEM Services	GI Indirect & Fee-for-Service	<p>Industrial Intern Programs: Pilot an industrial intern program to place students from our strong university network into internships with partner companies in the regional defense industrial base, using a fee-for-service model. This initiative leverages GI's core competencies, business processes, and systems to a dual-use system that extends value to regional businesses and expand horizons for motivated college students. Recruitment areas are undergraduate and graduate programs in computer science, engineering, mathematics, cybersecurity, and physics. Expand the intern's skill set through enrichments – lunch and learn sessions by providing soft skills training – goal setting, conflict management, resume writing. Providing on-site career counselling for future employment in the local area.</p> <p>Afterschool STEAM Program: Providing a fee-for-service afterschool program for elementary school students with sponsorships available for underserved communities.</p>
STEM Suites & HUSTLE House (Seth)	GI Strategic Overhead	GI Consistently sees demand for temporary housing for professionals and interns. Our existing stipends issued for housing in the greater Mohawk Valley have now exceed \$500,000 annually. There is an opportunity to own or secure housing units to maximize returns on our programs. In 2024, The GI will explore available housing units and the business models required to acquire or operate them.
Regional DIB Advocacy	GI Indirect + T2 + Memberships	Extending our efforts into state and federal agency activities and advocacy through existing and new business development.
VICEROY 2.0	GI Strategic Overhead	We will continue to “Build the Workforce We Anticipate” while continuing to leverage the diversity of talent that the 44 colleges and universities of VICEROY bring to the pipeline through its emphasis on Historically Black Colleges and Universities and Minority Serving Institutions. The partnership of the AFRL Information Directorate and the Griffiss Institute are ideally positioned to expand the scope of the

		<p>cyber workforce into the areas of AI, cloud data, and secure software development as all are part of the Core Technical Competencies of AFRL. Over the next two years, this partnership will take the VICEROY program to new heights to include:</p> <ul style="list-style-type: none"> • Tripling the number of internships available to VICEROY university students. • Leveraging the IoT work undertaken by AFRL and the Griffiss Institute by putting emphasis on the security aspects of the program. • Expand and sustain the curricula of the VICEROY Virtual Institutes to emphasize the need to secure newly manufactured silicon from the chip level on up. • Explore public-private partnerships for creating apprenticeships in the cyber security realm. • Provide research into US-based trusted computing capabilities by leveraging the Griffiss Institute role in the Trusted Computing Center of Excellence. • Explore/create high school apprenticeship/internship programs to better prepare students for college. • Use the VICEROY Virtual Institute construct to pursue the goals of a national virtual cyber academy to increase the cyber workforce through an expanded cyber pipeline.
M.I.S.S.I.O.N. Defense Studio	GI Strategic Indirect + Emerging Sponsor	Creation of GI-led private equity Fund (\$20M) and Venture Studio (\$10M; \$2M operating budget for 5 years) to support new startups with dual-use technologies and applications. The goals are to increase the throughput of defense technology transfer; increase commercialization of defense technologies to civil and commercial markets; and generate returns.
Women Investing in Women	GI Strategic Indirect	A collaboration between the Griffiss Institute, the Women's Fund, and Baird to support and elevate the 3rd Annual Women Investing in Women Awards Ceremony. This partnership aims to celebrate and promote the economic growth of Women-Owned local businesses while enhancing the brand of Griffiss Institute as a champion of diversity and empowerment.

Core Strength and Capacity Building

Strategic Initiative	Sponsor	Overview
Succession and Business Continuity Planning (Board)	GI Strategic Indirect	As identified in our Enterprise Risk Management program, the GI needs to develop more robust succession and capacity planning. Cross training and adding human capital will be considered as will documentation and accessibility of knowledge systems and Policies and Procedures handbooks. Similarly, the same care and deliberate attention is needed to develop a strong Board of Directors.
Secure Network and Data Environment	GI Strategic Indirect	The ITS backbone at GI needs additional capabilities to reach new contractual compliance requirements. Intrusion monitoring software, stronger and deeper cyber security solutions, Mobile Device Management, server, and hosting services, etc. All items acquired in 2024 will allow us to reach NIST-800 compliance standards.
Optimize Employee Benefits	GI Strategic Indirect	Routine internal best-practices for benefits are being fully implemented in 2024, a human capital calendar includes cyclical performance reviews, salary benchmarking, COLA evaluations, and evaluating new benefits vendors. Specific activities will include evaluating a PEO model for HR outsourcing, and a competitive bid for retirement/401(k) servicing.
Improve Project Management Discipline and Align Platform	GI Strategic Indirect	Not all platforms are created equal, and not all programs have the same needs. As we progress towards even better metric reporting, capturing of relatable data, and managing diverse projects; aligning platforms that get the job done is important for more effective and efficient work and time management. Smartsheets currently is in use across the organization and may need to have additional resources added to a project management function dependent on the department that is executing tasks.
Build a Development Arm	GI Strategic Indirect	Creating a development arm, establishing a dedicated team, defining goals, and crafting a diversified fundraising strategy. This includes building relationships with donors, leveraging technology, hosting events, and pursuing grants. Emphasizing transparency, impact measurement, and adaptability for a goal of sustained success in securing unrestricted funding and support for the GI's mission.
Employee Engagement Activities	GI Strategic Indirect	Building employee morale is a crucial aspect of fostering a positive work culture, and organizations can achieve this through various strategies. One effective approach involves organizing community events that bring employees together in and outside the workplace. These events, can be done virtually or in person such as volunteer activities, team-building exercises, or social gatherings, not only strengthen interpersonal relationships but also contribute to a sense of shared purpose and

		community. Providing branded apparel across the organization can further enhance the sense of unity and belonging among employees.
All Roads Training Program	GI Strategic Indirect	<p>A key way to remove risk from our ERM is through proper and quality training. Done well, training becomes an employee benefit. Areas in 2024 where GI will invest in creation of learning tracks:</p> <ul style="list-style-type: none"> • Project Management and Project Status Communications • Strategic Communications and Presentations • Compliance Training specific to HR, IT, Security and Safety • PIA specific training; annual events required by AFRL

Part II: Sponsored Projects

Project	Sponsor	Overview
Advanced Course in Engineering	AFRL PIA 1001	The Advanced Course in Engineering identifies and develops the next generation of cyber leaders. An elite team of trainers, coaches, instructors, and mentors engages students from international military and civilian colleges in an intensive summer program that combines education, operations, research, teamwork, and leadership in the area of cyber operations.
Air & Space Force STEM	AFRL PIA 6000	Air & Space STEM Outreach is a Department of the Air Force program with a mission to inspire, cultivate, and develop exceptional STEM talent by exposing K-12 students and teachers to U.S. Air Force and U.S. Space Force opportunities and resources. Griffiss Institute supports Air & Space STEM outreach activities and experiential learning programs across 37 Air & Space Force installations and laboratories to enhance STEM education and provide experience-based examples that reinforce the relevance of the STEM concepts being taught in the classroom, as well as helping to build a STEM literate society.
Air Force LEGACY	AFRL PIA 6000	The Air Force Leadership Experience Growing Apprenticeships Committed to Youth (LEGACY) Program is a three phase, multi-year program designed to provide students aged 11-college the opportunities to become inspired in STEM through a pipeline to enhance the nation's future STEM workforce. LEGACY begins with Phase 1: Craftsman for ages 11-15 with hands-on, week-long STEM camps, then continues to Phase 2: Junior Apprentice for ages 16+ allowing students to work with mentors on one of the designated Air Force Bases and concludes with Phase 3: Apprentice for college aged students to continue mentorships and facilitate a transition into the workforce. LEGACY is currently supported at Wright-Patterson AFB in Ohio, Air Force Office of Scientific Research in Virginia, Eglin AFB in Florida, US Air Force Academy in Colorado, and Hill AFB in Utah.
RI STEM	AFRL-RI PIA 1004	The Air Force Research Laboratory, Information Directorate (AFRL/RI) STEM Program ("RI STEM") fosters the next generation of scientists, mathematicians, engineers, and technologists who will one day discover, and problem solve, in the nation's defense laboratories and other supporting U.S. companies. The goals of RI STEM are to advance student awareness and pique interest in the STEM fields to further educational pathways to eventual careers with the DoD and/or private industries for accessible US based talent pool with the skills to secure our nation's technological resilience. The RI STEM program is advanced through a rotation of short-term programs such as day camps and workshops in various STEM curriculums to maximize students' exposure to the breadth of potential career paths. In addition to summer and school break STEM camps that engage regional K-12 students, a concerted effort is also mounting to connect

		business, government foundations, institutions of higher education, professional organizations, schools, teachers, and students, to advance the talent pipeline throughout students' educational journey and on to successful careers.
RI Intern	AFRL RI PIA 1004	The RI Intern Program recruits and develops future research scientists and engineers that are focused on the Air Force Research Laboratory's Information Directorate core competency areas, including Command, Control, Communications, Computing, Intelligence and Cyber technologies. Mentor-led projects are used to empower our interns to develop and expand their professional skillsets.
RI Co-Op	AFRL RI PIA 1004	The RI Co-Op program seeks research co-ops from participating universities to participate in 4-to-6-month experiential learning opportunities within the Air Force Research Laboratory's Information Directorate. These students assist in basic and applied research helping to implement state of the art solutions to research topics in Command, Control, Communications, Computing, Intelligence and Cyber technologies.
Information Institute	AFRL RI PIA 1002	The Information Institute (II) serves as the primary outreach and bridge to academia for the Air Force Research Laboratory, Information Directorate (AFRL/RI). The overall goals of this program are to provide AFRL/RI support to: (1) manage the II consortium via Education Partnership Agreements (EPA); (2) provide technical and administrative assistance to AFRL/RI, Air Force Office of Scientific Research (AFOSR), National Science Foundation (NSF) and National Research Councils (NRC's) Outreach Programs; and (3) execute the Visiting Faculty Research Program (VFRP) and Research Fellowship Program on behalf of AFRL/RI.
Northeast Advanced Technological Education Center	NSF NEATEC Award*	The NEATEC program is part of a National Science Foundation initiative focused on the development and implementation of a Semiconductor Workforce Certificate Program based on the Unified Advanced Manufacturing Competency Model. Regional community college students are engaged in mentored internships at AFRL/RI throughout the year with the aim to inspire them into careers in the defense industrial base with micro-credentials relevant to semiconductor manufacturing. *Expires 2024
GI Pilot 2024	GI Strategic Indirect + AFRL-RI PIA 1001	This pilot project will continue sponsored research and development (R&D) capability within the organization. The project will leverage the ongoing programs sponsored by the Information Institute (II) to create synergies of research and develop multi-institutional research team(s), providing administrative support to develop new concepts and prepare collaborative proposals to agencies and potential industry partners.

VICEROY	AFRL RI PIA 1001	The VICEROY program increases the quantity and quality of security clearance eligible undergraduate students who possess job-ready DoD cybersecurity skills upon graduation. The approach is to augment traditional college curricula with hands-on, experiential learning programs that are uniquely tailored to match the workforce demands of the Armed Services, Department of Defense, and our Defense Industrial Base partners. Led by the Office of the Undersecretary of Defense for Research and Engineering, the GI supports this program to manage curriculum requirements, scholarships, internships, and research activities at six national hubs hosted at R1 and R2 universities.
Technology Transfer	AFRL RI PIA 1001	Assist AFRL/RI in its Technology Transfer Initiatives to increase the likelihood of success in the conduct of science and engineering activities. Specifically, 2024 will be to hire and build the robust internal scouting efforts needed at AFRL/RI.
HUSTLE	AFRL RI PIA 1001, NYS AC395	The Helping Upstate Science and Technology Leaders and Entrepreneurs (HUSTLE) Defense Accelerator is an elite and immersive 12-week training academy for seed stage startups pushing AI/ML, cyber, quantum, and UAS solutions with potential to elevate the United States' national security and economic competitiveness. Approximately Ten startups will be eligible for seed investments upon completion of their dual-use customer discovery program requirements.
Technology Scouting Discipline, (formally known as ASPIRE)	AFRL RI PIA 1001	Complete the transition from Aspire, an event based, once a year collider, to "Aspire Everyday" with at least two technology scouts focusing on S&E specific technology transfer.
Griffiss Incubator	NYS 210227	Certified NYS Business Incubator providing support for innovative small businesses and startups in Mohawk Valley and broader Upstate New York.
ORION and SMART X IoT	Congressional Mark + NIST Award	Collaborative technology transfer programs, coordinating with partners like Quanterion, AIS, AFRL-RI, and NYSTEC.

DOD NYS Industry Day	T2 Core	A regional event conducted via the Innovare Alliance partners, where 2 solid days of presentations and matchmaking will occur between DoD program managers representing programs of record and the research and technology sector of Upstate New York. This program will specifically match quality connections for procurement opportunities.
NORDTECH, A Microelectronics Commons Hub	Subaward from SUNY as Prime to Navy Crane	NORDTECH aims to engage the next generation of STEM talent throughout its program lifecycle to grow and diversify the American microelectronics talent pipeline. The Hub's prevailing workforce strategy is utilizing embedded experiential learning through mandatory participation of diverse community college and undergraduate students on all Hub Projects. The GI will leverage its Secret FCL and network of over 200 diverse academic research institutions from which it has employed over 2,000 technical faculty and students, 20% of whom hail from HBCU, MSI, and TC, on existing open innovation programs for OUSDR&E, AFOSR, and AFRL. GI prepares both civilian and military track students for DOD and DIB technical career readiness with best-in-class experiential learning and leadership programs from high school challenge camps, collegiate internships and co-ops, graduate assistantships, and postdoctoral fellowships traversing integrated quantum photonics, electromagnetic spectrum warfare, terahertz communications, cyber operations, cyber engineering, and cUAS operations. The GI will serve on the Workforce Advisory Committee (WAC) to focus on alignment of Hub talent development execution strategy with NSTC Workforce Development execution strategy, as they develop in parallel. WAC members also commit to conducting STEM outreach for high school, community college, and undergraduate students to engage more students in the microelectronics innovation in support of the American defense mission.
The New York State Microelectronics Defense Manufacturing, Supply Chain, and Workforce ("UpState Defense") consortium	Subaward from NYS ESD as Prime to DCMSP	The New York State Microelectronics Defense Manufacturing, Supply Chain, and Workforce ("UpState Defense") consortium addresses challenges in the microelectronics industry by strengthening talent pipelines, cultivating an innovation ecosystem, and enhancing local supplier resilience in New York State. The geographic area spans from Syracuse to Utica-Rome and creates jobs, reshores supply chain sourcing to the United States, and strengthens the national security innovation base. UpState Defense's mission is to strengthen and grow New York's rapidly evolving microelectronics industry cluster by building infrastructure, accelerating the growth, and supporting interconnectivity. UpState Defense addresses multifaceted workforce, innovation, and supply chain challenges in the following ways: (1) Strengthening and Diversifying Talent Pipelines by expanding the existing collaborative of workforce-ready training and degree pathways to in-demand defense careers and launching new career exposure opportunities with traditionally underrepresented populations. (2) Cultivating a Stronger Innovation and Entrepreneurship Ecosystem by expanding existing start-up

	accelerators, providing more access to risk capital, and developing new accelerator programming that emphasizes technology transfer and “intrapreneurship.” (3) Enhancing Local Supplier Innovation and Resiliency by launching co-design workshops to map and coordinate the local supply chain, deliver federal procurement training, and develop a regional clearinghouse of vetted suppliers for better matchmaking.
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