

FSU

INSPIRE

*INSTITUTE FOR STRATEGIC PARTNERSHIPS,
INNOVATION, RESEARCH, & EDUCATION*

TGC Update

Oct 2026



FSU InSPIRE

The Future Research & Innovation Neurocenter of NW Florida

1) APPLIED UI RESEARCH & DEVELOPMENT

Derisking innovation to deliver **end-to-end research**, tech development, prototype demonstration, and comprehensive **systems testing and evaluation in a secure environment**

2) DEVELOPING A TALENTED WORKFORCE

Develop the **highly-skilled workforce** to support and staff a thriving aviation and aerospace ecosystem in Northwest Florida.

3) REGIONAL ECONOMIC GROWTH

Foster **collaboration**, provide access to state-of-the-art facilities and secure substantial funding **for translational work**.



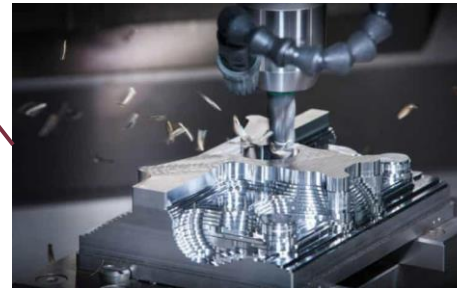
FSU InSPIRE Vision

VISION: InSPIRE will establish the Florida Panhandle as the nation's foremost hub for aerospace and advanced manufacturing, pioneering in demonstration, testing, evaluation, and research and technology development.

MISSION: The mission of InSPIRE is to forge impactful collaborations with industry, government and community partners, attracting new investments and industries to the region, while creating a surge in highly-skilled, high-wage jobs and providing comprehensive workforce training.

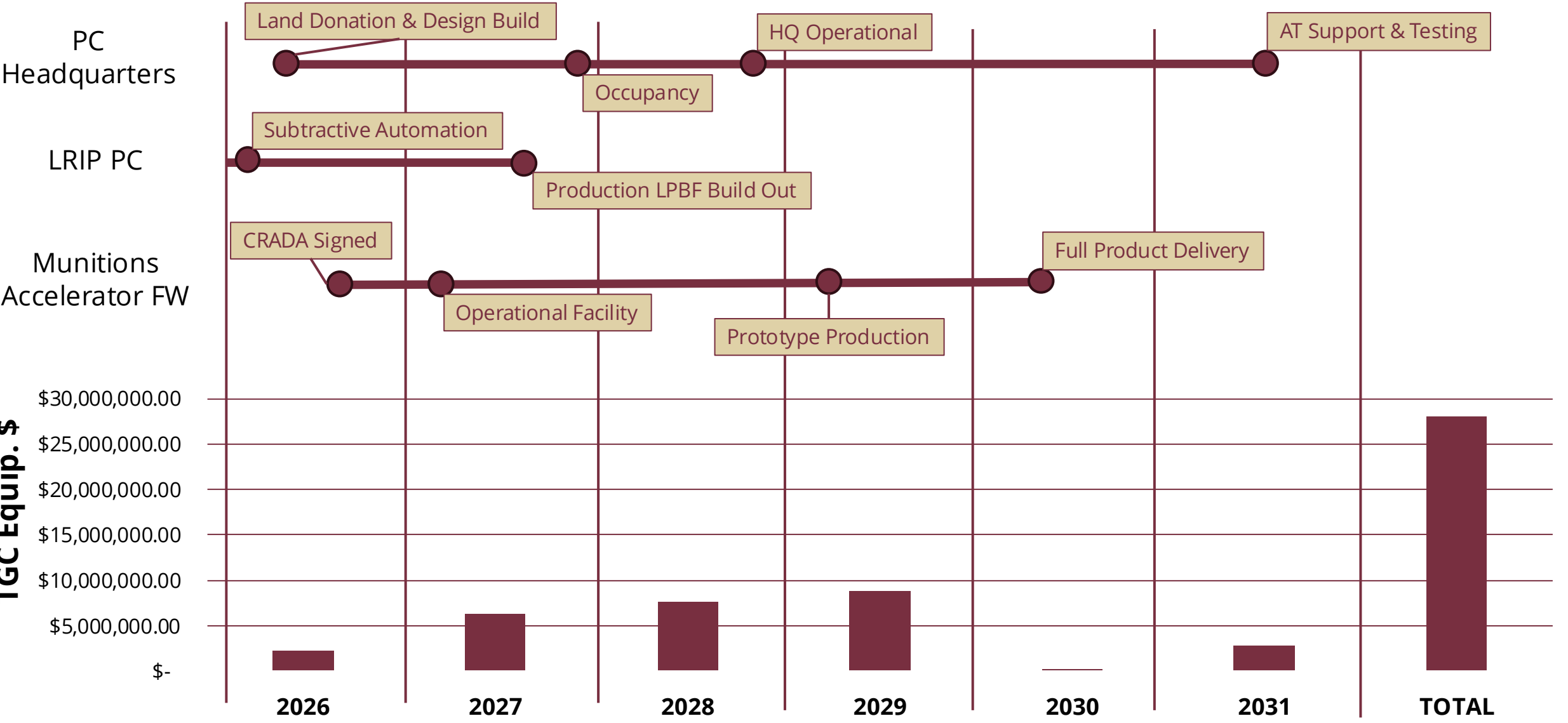
Advanced Manufacturing

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- ## Qualified Production Process

AM Timeline



Aero Testing and Evaluation

Aerotesting Capabilities

Hypersonic

- Mach 6-10
- Long Run Time: 60 sec
- Large Test Section: 18"
- High temperature: 3000°F

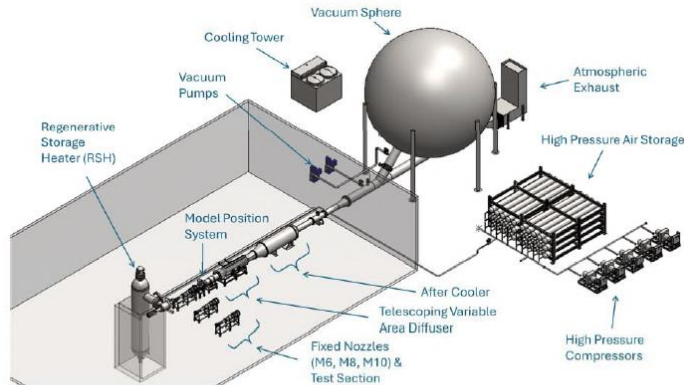


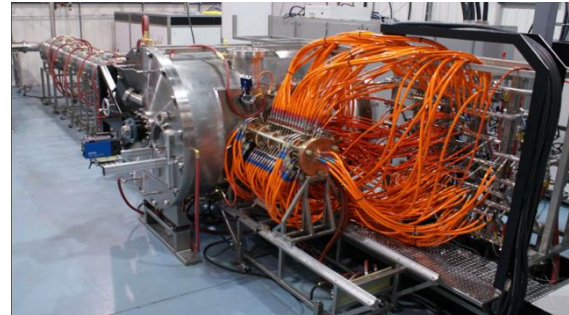
Figure 1: Overall Conceptual Facility Layout



Accessible and Low Cost

Arc Jet

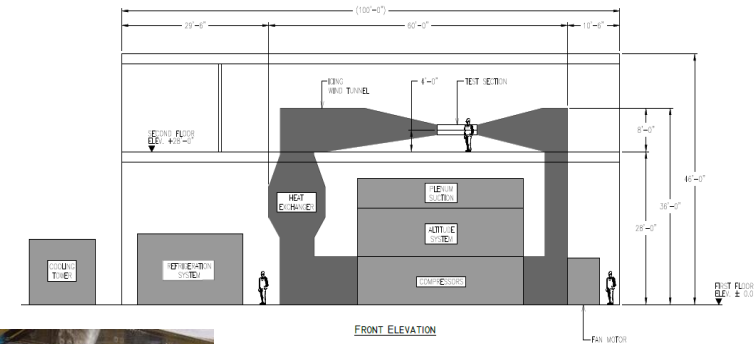
- 1MW Segmented Arc
- Higher Mach at lower altitudes
- Long Run Time – 30 minutes
- True flight enthalpy for material development and manufacturability



**Paired with AM Facility
\$4.2M CIPP Funding**

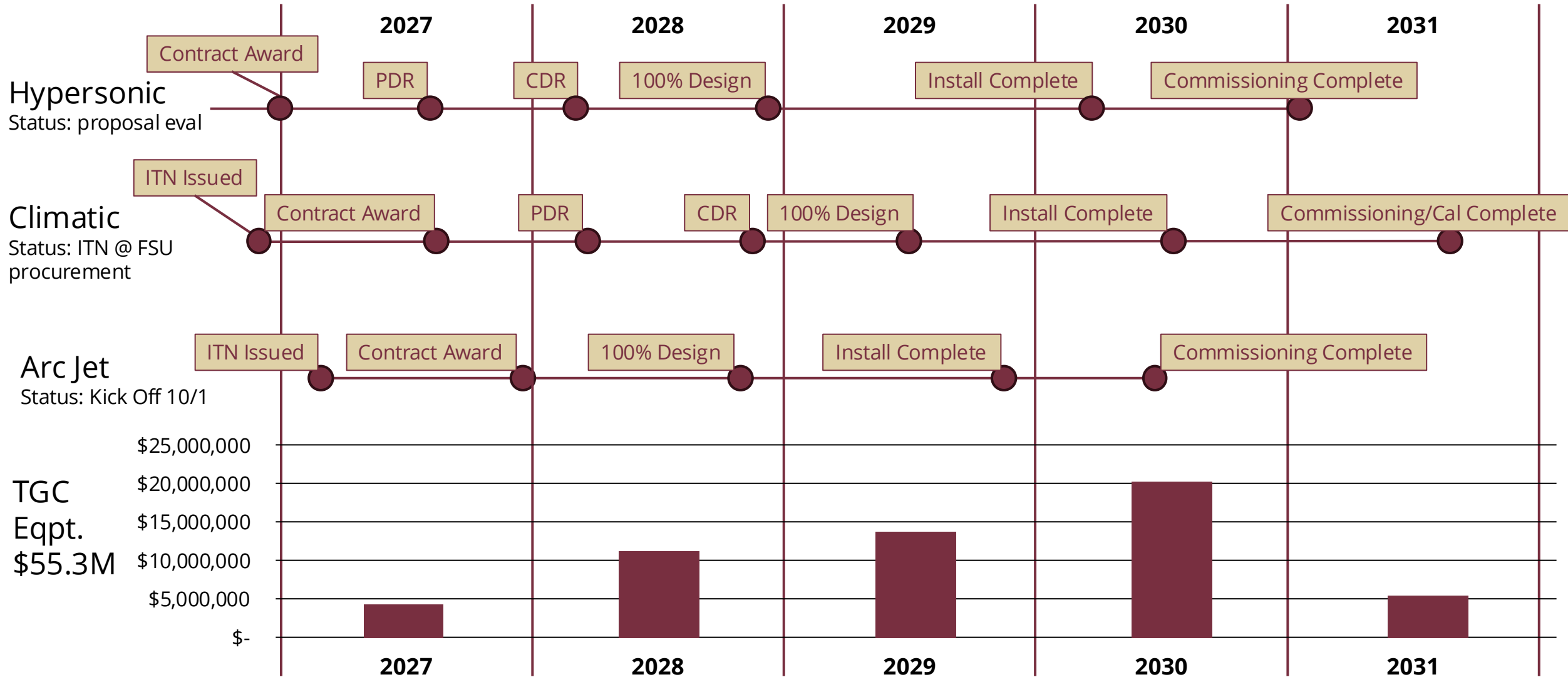
Climatic

- No available facilities for FAA testing
- Supercooled water, icing, mixed phase, rain
- Probe and unique feature development to combat ice accretion



Only Publicly Available

Aerotesting Timeline



Education & Workforce Development

Education and Workforce Development

Modernizing teacher professional:



Gains in K-12 educator competency including non-STEM/CTE

- Career-readiness practice
- STEM teaching self-efficacy
- Problem-solving and teaching practice



Pathways with multiple courses

- Designed to address educational and economic goals with industry partners for each course
- Build on teacher successes & build foundational competencies
- Florida Standards Alignment for InSPIRE courses and classroom resources



Embedded workforce development

- Durable/soft skills pedagogy
- Field experiences to local industry
- Guest Experts in industry and economic development



"I would like to continue my training on AI. I would also like to have more STEM training, even though I am an ELA teacher."

-Summer 2026 InSPIRE participant

FSU InSPIRE Creating Courses within Pathways for the Future of Work

What does the future look like for our

- ✓ High school seniors?
- ✓ Kindergarteners?
- ✓ College graduates?



Computational Thinking in the Age of AI



Artificial Intelligence



Robotics & Pre Engineering



Advanced Manufacturing & Design



STEM Entrepreneurships & Communications

"I feel confident and empowered. I also want to grow more in being able to encourage students in the areas that we learned."

-Summer 2026 InSPIRE participant

Regional Reach, Local Impact

350+

Educators to date from all 8 counties

688+

Industry certifications earned to date

8

Northwest Florida counties served

5

2026 training weeks

9

Cohorts of courses Summer 2026

6

Industry Field Trips 2026

2

State College Host Campus Tours



2026 Host Sites, Industry Trip Partners & Events



"Just keep making these opportunities. This was great, expand and we will come."

- Summer 2026 InSPIRE participant

Facilities & Sites

InSPIRE Sites

InSPIRE / ASTRO Ft. Walton
Munitions Accelerator



InSPIRE HQ
End-to-End R&D & Testing



InSPIRE/ ASTRO Panama City
Low-Rate Initial Production



Florida State University



InSPIRE HQ Facility

End-to-End R&D & Prototyping Center

Model

- Paid user facility open to all U.S. industries
- Focused on end-to-end workflows, materials development, process optimization, digital engineering
- 50,000 sq ft
- 25 acres in Venture Crossings
(donated by The St. Joe Company)

Capabilities

- Directed energy deposition
- Laser powder bed fusion
- Wire arc additive manufacturing
- Advanced heat treatment
- Joining / welding
- Non-destructive evaluation
- Reverse engineering
- Finishing / Coating
- Robotics / Automation





InSPIRE HQ Facility

Expenditures

- Estimated facility Cost: **\$13,500,000**
- Estimated Equipment Purchases: **\$20,000,000+**

Timeline

Spring 2026	●	Land Donation from St. Joe
Summer 2026	●	A&E / GC Hired – Design Started
Nov 2026	●	Facility Ground-breaking
Q4 2027	●	Facility Occupancy
2028	●	Equipment Installation / Testing / Certification
2028	●	Onboarding PIs / Engineers / Technicians

InSPIRE/ASTRO Panama City

First R&D to Low-Rate Initial Production Facility

Model

- Paid user facility open to all U.S. industries
- Capable of certified low-rate production in a real manufacturing environment

Capabilities

- Metal laser powder bed fusion
- AS9100 certified precision machine and fabrication
- CNC, multi-axis Machining
- Hot Isostatic Press (HIP)
- Heat Treatment
- In-Situ Monitoring
- Data Analytics



InSPIRE/ASTRO Panama City

Expenditures

- Current Equipment Purchased: **\$2,000,000**
- Current In-Kind Contributions: **\$5,000,000**
- Upcoming Equipment Purchases: **\$4,000,000**

Current Awards

- *Sponsor:* Office of Secretary of War / MANTECH (Through America Makes)
- *Partnerships:* FSU InSPIRE / ASTRO America / FSU HPMI / Colorado School of Mines / Northrup Grumman / Honeywell Aerospace
- *Award Amount:* **\$1,600,000**
- *Overview:* In-situ quality assurance for complex additively manufactured components.

- *Sponsor:* Defense Logistics Agency IDIQ
- *Partnerships:* FSU InSPIRE / ASTRO America / Maritech
- *Award Amount:* **\$9,800,000** award ceiling (5-year)

InSPIRE/ASTRO Ft. Walton

Munitions Accelerator

Model

- Paid user facility open to all U.S. industries
- Focused on affordable and high throughput munitions production

Capabilities

- Rapid metal casting
- Solid-state additive manufacturing
- High-performance polymer AM
- Post-process machining
- Metallography and Inspection



InSPIRE/ASTRO Ft. Walton

Expenditures

- Current Equipment Purchased: **\$0**
- Current In-Kind Contributions: **\$300,000**
- Upcoming Equipment Purchases: **\$4,000,000**

Current Awards

- *Sponsor:* AFRL – Air Warfare Directorate
- *Partnerships:* FSU InSPIRE / ASTRO America / Northrop Grumman / AFRL - AE
- *Amount:* **\$9,532,744**
 - \$1,095,920 – AFRL
 - \$4,510,000 – Northrop Grumman
 - \$2,950,000 – FSU InSPIRE
 - \$976,824 – ASTRO America
- *Overview:* Design for Affordability and Rapid Throughput of Munitions Production
- Community Funding Project through Congressman Jimmy Patronis: **\$1,000,000**

Timeline

Q2 2024	●	Triumph Grant Awarded
Q1 2025	●	InSPIRE / ASTRO PC Opening
Q1 2026	●	Venture Crossings Land Donation from St. Joe
Q4 2026	●	HQ Facility Ground-breaking / Equipment Orders Begin
Q1 2027	●	InSPIRE / ASTRO Ft. Walton Opening
Q4 2027	●	HQ Facility Occupancy
2028	●	HQ Equipment Installation / Testing / Certification
2028	●	HQ Onboarding Pls / Engineers / Technicians

Total Expenditures / Contributions

(unofficial)

Expenses

- Current Triumph Expenses: **\$9,320,000**
- FSU Match Expenses: **\$5,853,000**
- Projected 18-Month Expenses: **\$28,000,000**
- Projected Phase I Facility: **\$13,500,000**

Contributions

- Current in-kind: **\$6,917,256**
- Current awards to region: **\$13,382,744**
 - \$5,200,000 Congressional
 - \$1,600,000 Competitive
 - \$6,582,744 CRADA
- Anticipated Awards: **\$24,800,000**
 - \$15,000,000 Congressional Pgm Add
 - \$9,800,000 IDIQ Award Ceiling (5-year)
- *Total Current External:* **\$20,300,000**

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