Auburn University Applied Research Institute

- Jonathan Pettus
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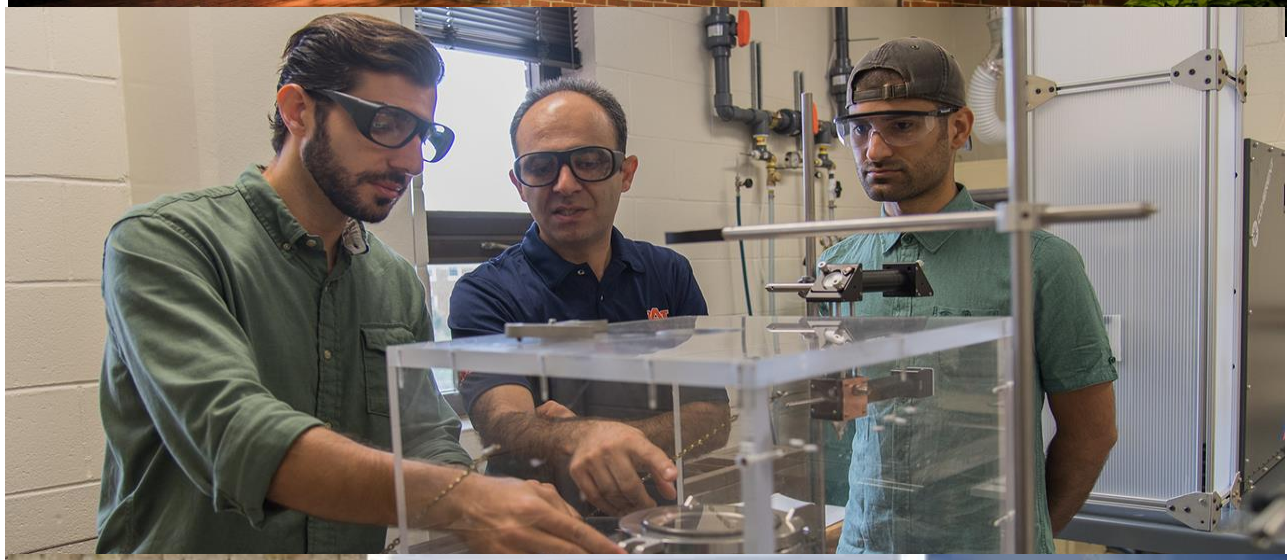
Auburn Applied Research Institute Mission

- Contributor to the broader mission of education, research, and service and enable the University's strategic plan through transformative research
- Impact students and faculty
- Enhance the University's research capabilities and infrastructure
- Apply research to solve problems of national and global importance
- Leverage the connection with the robust science and technology economic ecosystem in Huntsville as a key part of a larger research growth strategy



Auburn Applied Research Institute By the Numbers

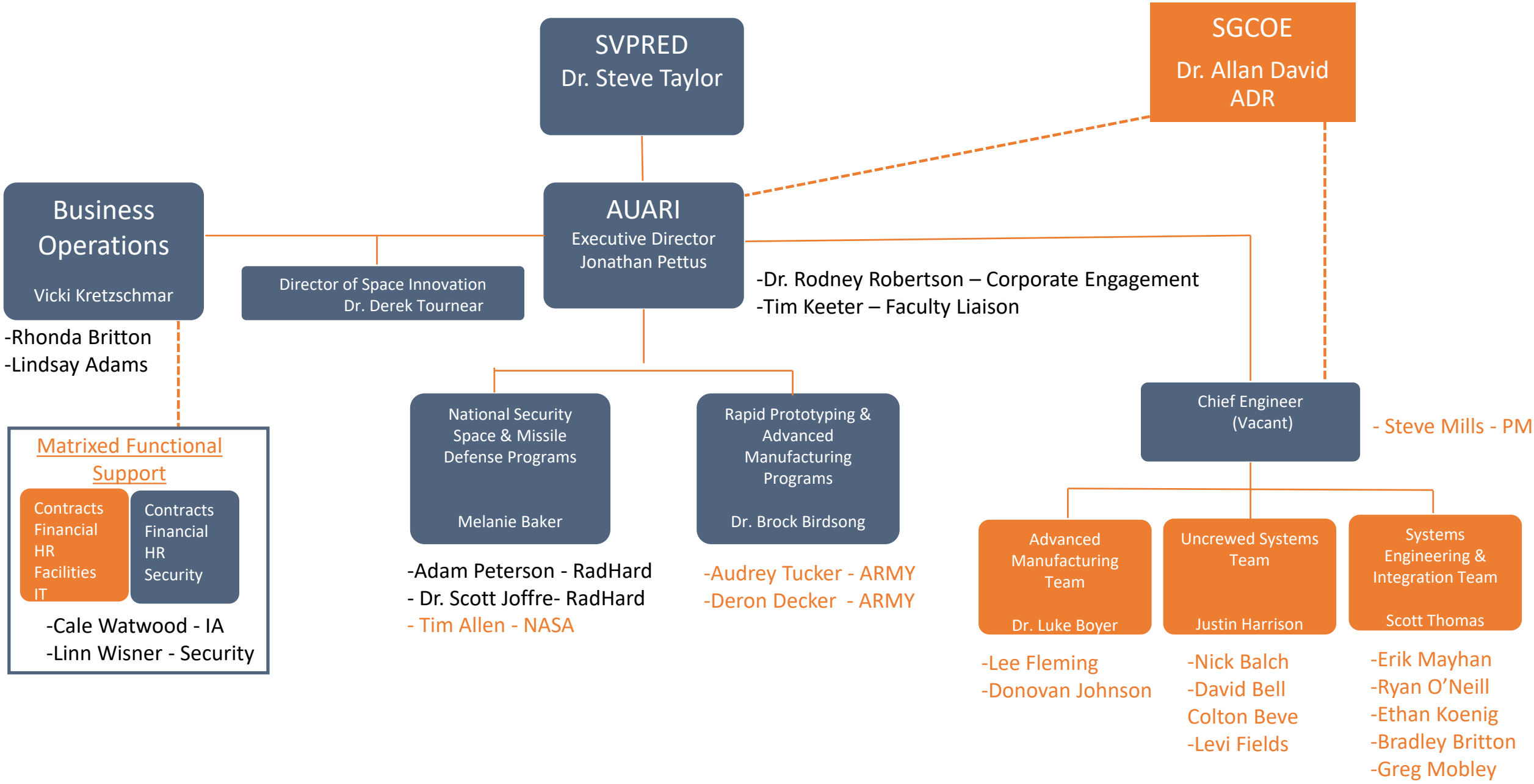
- 29 Employees (11 , 18 SGCOE)
- 67,000 square feet of facility space
- Over $15M in FY24 awards
- Key Contract Opportunities
  - Additional $23M of contract ceiling remaining for Army OTA contract
  - Design for Additive Manufacturing $3.5M
  - SDA Digital Operations Center Training and Development - $3M
  - Army Pathfinder Rapid Development - $2M
  - MDA Rad Hardening – Phase 2 – $15.5M
  - Army AvMC follow-on opportunity $49M
  - Missile Defense Agency Post Intercept Analysis Phase 2
  - Golden Dome for America – SHEILD

Auburn Applied Research Institute Strategy

Position Auburn University applied research as a disrupter to the legacy DOD and Aerospace research enterprise

- Agile, non-threatening partner to assist government and industry with technology transition through “valley of death”
- Provide expertise and infrastructure for rapid prototyping, test, evaluation, and qualification of technology
- Direct focus on specialized instruction and applied experience in key areas of technology need
- Trusted partner to bridge transition between government and commercial

AUARI Organization



New Laboratory Facility Under Construction

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Develop Bimodal Execution Model for Collaboration

ARI Led

Hybrid

Faculty Led

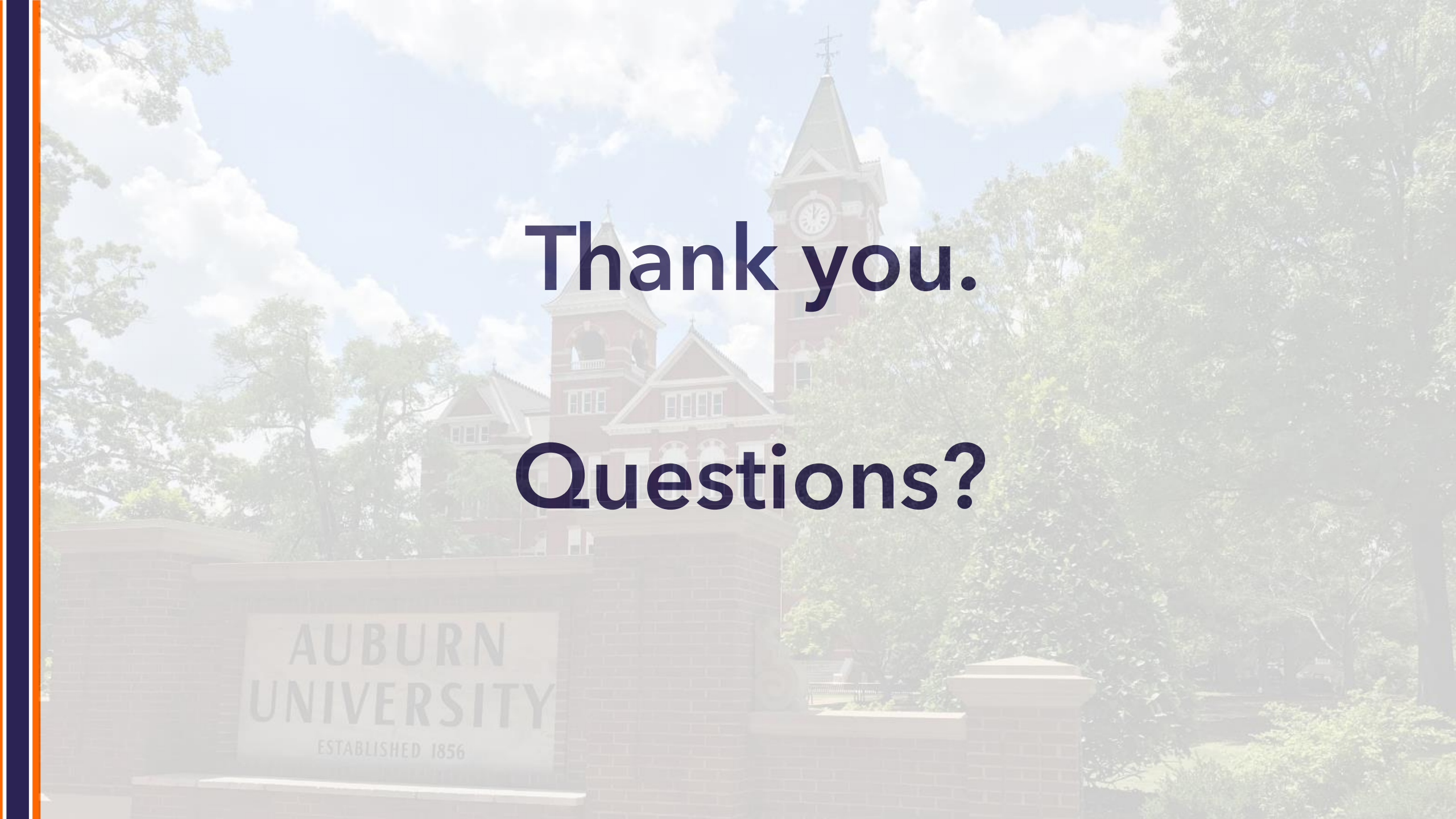
- PI/PM is ARI-based
- Executed primarily by local research engineers
- Pulling campus capabilities toward customer needs/gaps
- Shared research and financial credit

- PI/PM is campus-based
- Executed primarily by campus grad students/research engineers
- ARI connect and pushes opportunities to campus
- Shared research credit for Huntsville-related growth

Non-negotiable: Connection with faculty, instruction, and student impact

AUARI Points of Contact

Role	Contact
Army & Air Force Programs DEVCOM Maneuver Center of Excellence Aviation Center of Excellence Space and Missile Defense Command Special Operations Command	Dr. Brock Birdsong brock.birdsong@auburn.edu
Space & Missile Defense Programs Missile Defense Agency Space Development Agency Space Force NASA US Space Command Rad Hard Program	Melanie Baker melanie.baker@auburn.edu
Advanced Manufacturing Additive Metal Additive Polymer Composite Large Format Printing	Dr. Luke Boyer lukeboyer@auburn.edu
Systems Engineering and Integration Digital Engineering Modeling and Simulation	Scott Thomas scott.thomas@auburn.edu
Uncrewed Systems Air, Water, Land	Justin Harrison Justin.harrison@auburn.edu
On Campus Faculty Liasson	Tim Keeter tim.keeter@auburn.edu



Thank you.

Questions?

Radiation Hardening (RadHard) Testing

- The Missile Defense Agency (MDA) awarded an $11.4M contract on 14 Nov ‘24 to establish a RadHard Proton Testing Capability
- Submitting two more proposals for total for combined $15.5M value in 2026
- We are constructing a new 50,000 sq ft facility in Research Park, located approx. 3 miles from the Redstone Arsenal Gate
- First dedicated University-led proton testing facility dedicated for testing electronics for space
- Our new facility will provide testing to allow us to evaluate the possible effects of extreme radiation exposure
- Testing will begin in January ‘27

Space Operations Center

- The Space Development Agency (SDA) awarded the Corvid/Auburn ARI Team a Phase 1 STTR with an intent to move quickly toward a Phase II
- Our team will stand up an SDA digital twin platform; one on the AU campus (unclassified) and one in the new facility in Huntsville, AL (classified)
- These facilities will also serve as a robust pipeline to train future space ops professionals to help SDA realize their critical mission goals
- Three primary components of our approach:
  - Configurable space ops User Interface (UI) development environment
  - Space ops application software factory (student engagement)
  - Multi-disciplinary Auburn Space Operations Certificate

Rapid Prototyping for U.S. Army Research Laboratory

- Emergence Ranger Initiative fosters research solutions to innovate soldier capabilities for the U.S. Army
- Offers opportunities for Auburn faculty, research engineers, and students to rapidly prototype solutions to augment and enhance existing platforms and systems
- Leverage capabilities in digital engineering, computational analysis, additive manufacturing, and systems integration