INNOVATION CAMPUS

and the Technology Ecosystem

David Baker, Director of Government & Community Relations

September 22, 2021

About Virginia Tech

Blacksburg, Greater Wash. DC, India, Switzerland, Africa

2,970 teaching and research faculty
70% tenure/tenure track
483 research and post-docs

$542M in annual research expenses
48th in National Science Foundation Rankings

37,024 total students/92% full-time/19% grad

7,225 bachelor's degrees awarded annually
2,159 graduate degrees awarded annually

INNOVATION CAMPUS

Virginia Tech in Northern Virginia – 50 Years and Growing

Equine Medical Center

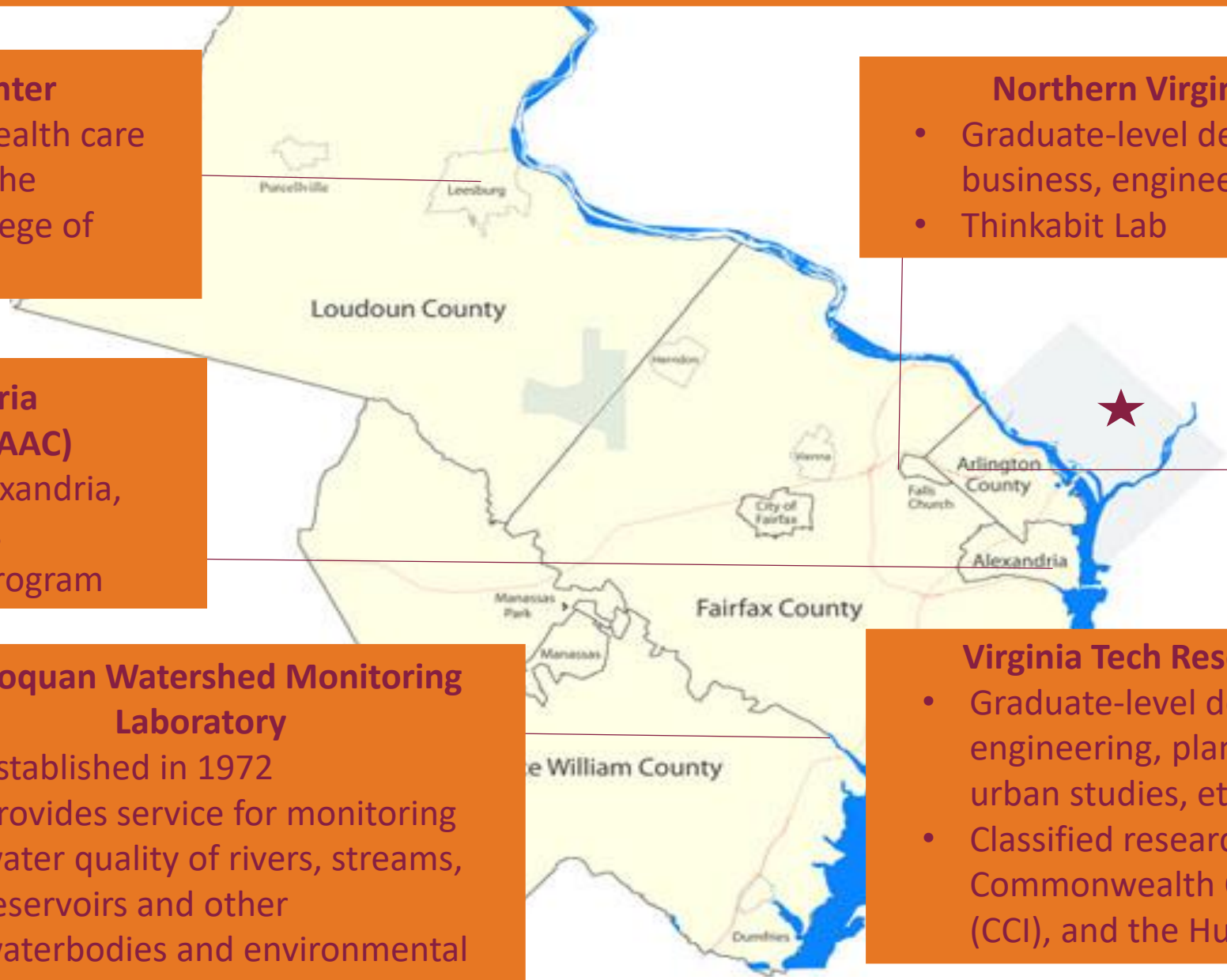
- One of three animal health care facilities operated by the Virginia-Maryland College of Veterinary Medicine

Northern Virginia Center

- Graduate-level degrees in business, engineering, etc.
- Thinkabit Lab

Washington-Alexandria Architecture Center (WAAC)

- Located in Old Town Alexandria, home of the university's graduate architecture program



Occoquan Watershed Monitoring Laboratory

- Established in 1972
- Provides service for monitoring water quality of rivers, streams, reservoirs and other waterbodies and environmental samples

Virginia Tech Research Center

- Graduate-level degrees in engineering, planning and urban studies, etc.
- Classified research labs, and the Commonwealth Cyber Initiative (CCI), and the Hume Center

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A BRIEF HISTORY

- Amazon HQ2 Competition **2017**
- Virginia's "Tech Talent" Proposal **2018**
- Amazon's Selection of Crystal City/National Landing
- VT Site Selection Alexandria's Potomac Yard District **2019**
- City of Alexandria Approval of Site Plan
- Design of New Virginia Tech Innovation Campus Begins **2020**
- Virginia Tech Hires Executive Director Lance Collins
- First Tech Talent Students Enrolled
- Temporary Location Opens in Alexandria
- Groundbreaking September **2021**
- New Academic Building Open Summer **2024**

INNOVATION CAMPUS

OUR VISION

The Virginia Tech Innovation Campus will be both ***a place and a culture*** that unlocks the power of diverse people and ideas to solve the world's most pressing problems through technology

INNOVATION CAMPUS

OUR MISSION

The Virginia Tech Innovation Campus will create the nation's leading architects of complex, cutting-edge digital technologies through a graduate education that embeds our diverse students and faculty into ***the science and technology ecosystem*** of our nation's capital and beyond. Our experiential curriculum and research address real-world, human-centered challenges derived from technically-innovative companies and government agencies.

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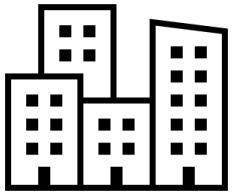
A PLACE 

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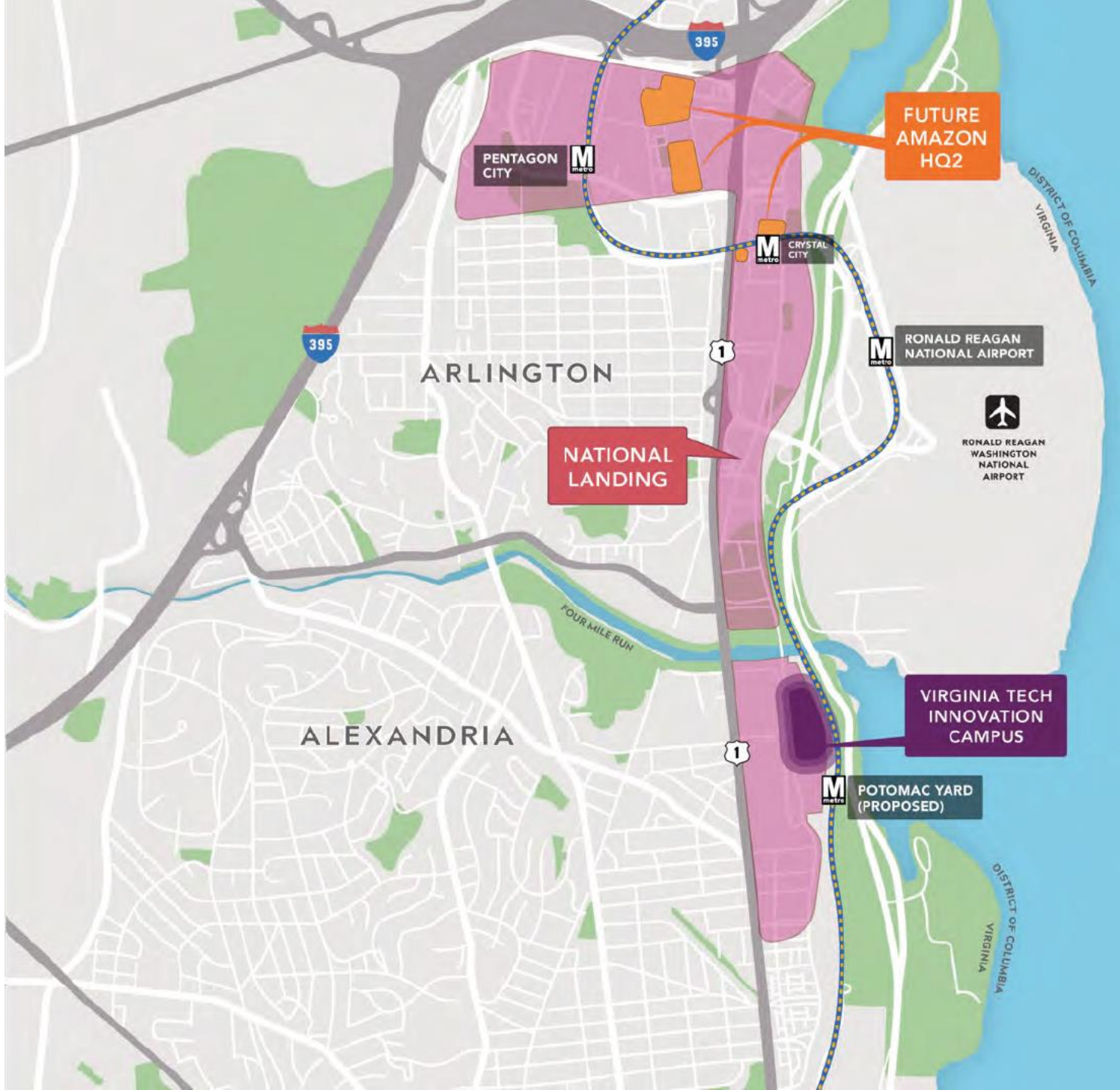
WHERE?

3.5-acre site, just south of Four Mile Run in Alexandria's Potomac Yard District

Anchors a 65-acre mixed use district

Near the Potomac Yard/VT Metro Station currently under construction



INNOVATION CAMPUS

INNOVATION CAMPUS

WHAT?

300,000 sf of academic space including classrooms, labs, study space, and faculty offices

First of three Virginia Tech buildings to be located on this site

Plus 75,000 sf of leased space in an adjacent Innovation Center with our library, a business incubator and several partner organizations

INNOVATION CAMPUS

SOUTH FACADE

NORTHEAST CORNER

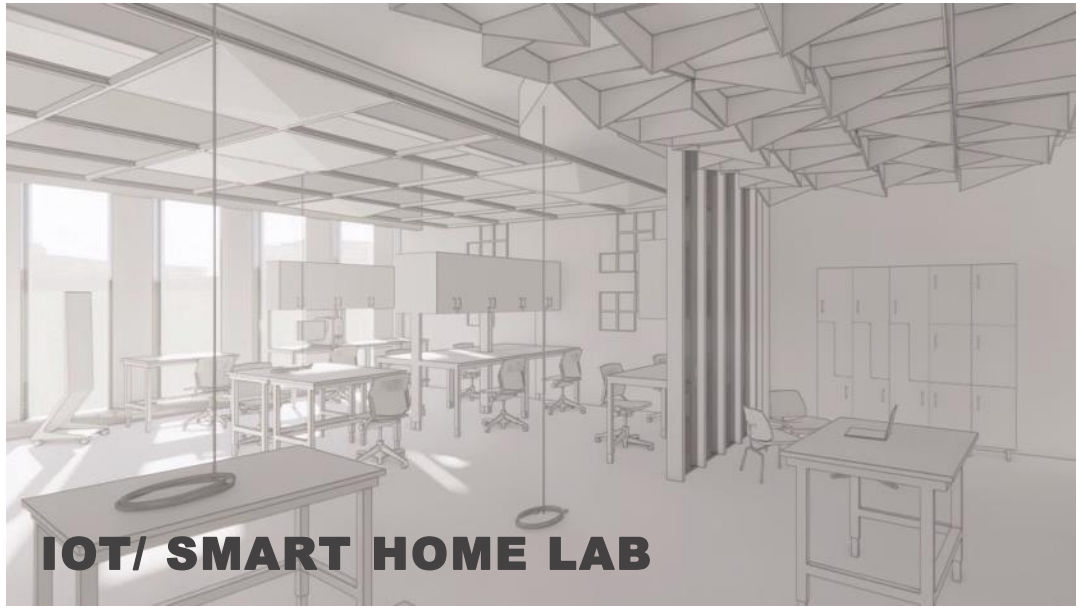
SOUTHWEST CORNER

KEY SPACES: TYPICAL CLASSROOM

KEY SPACES: LOBBY

KEY SPACES: THE LOFT

KEY SPACES: HIGH INTENSITY LABS



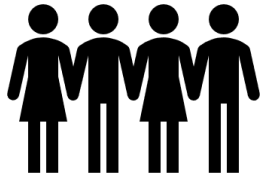
KEY SPACES
BRAIN GYM / TREE HOUSE

KEY SPACES: ADMINISTRATIVE SUITE

KEY SPACES: 8th LEVEL ROOF TERRACE

INNOVATION CAMPUS

TEMPORARY SPACE: 3000 POTOMAC AVE, ALEXANDRIA

A CULTURE 

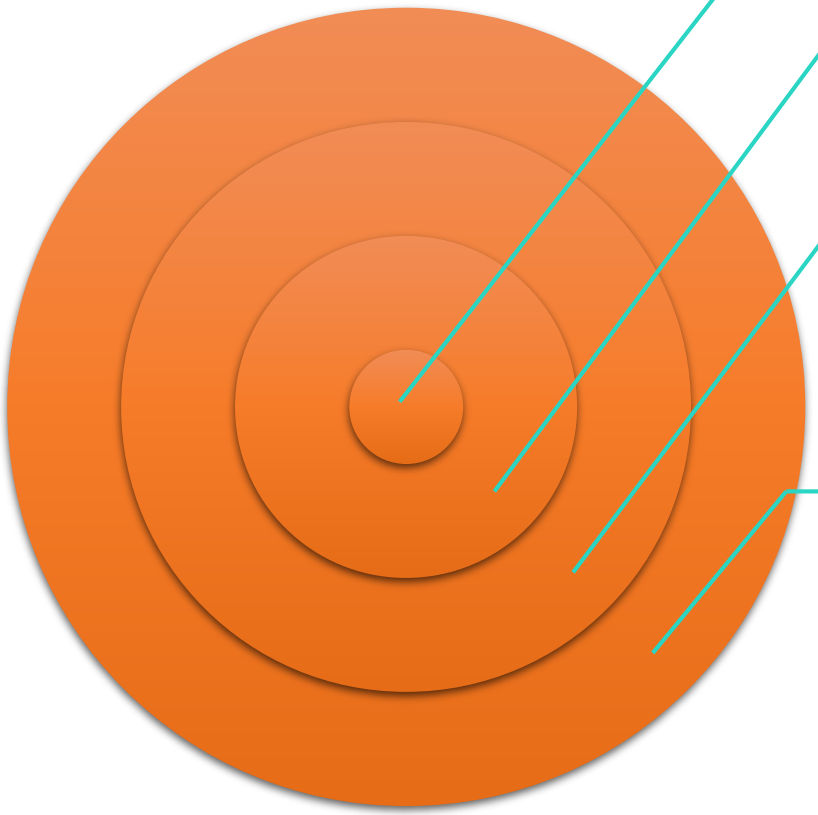
INNOVATION CAMPUS

COMMITMENT TO DIVERSITY AND INCLUSION

Students, Faculty, Research and Engagement

DIVERSE STUDENTS

Pursuing a unique graduate education



THE GOAL

Create the nation's leading architects of complex, cutting-edge digital technologies

A NATIONAL IMPERATIVE

Expand the opportunity for groups currently underrepresented in technology fields to realize their potential

INITIAL PROGRAMS

- Master of Engineering in Computer Science and Computer Engineering
- Completed in one-year full-time or in multiple years part-time
- Combination of online and in-person experiences
- Expansion to additional technology focused degrees in the future.

A PROJECT-BASED EDUCATION

Students working together on teams to complete real-world projects solicited from industry, government, not-for-profits and the entrepreneurial sectors.

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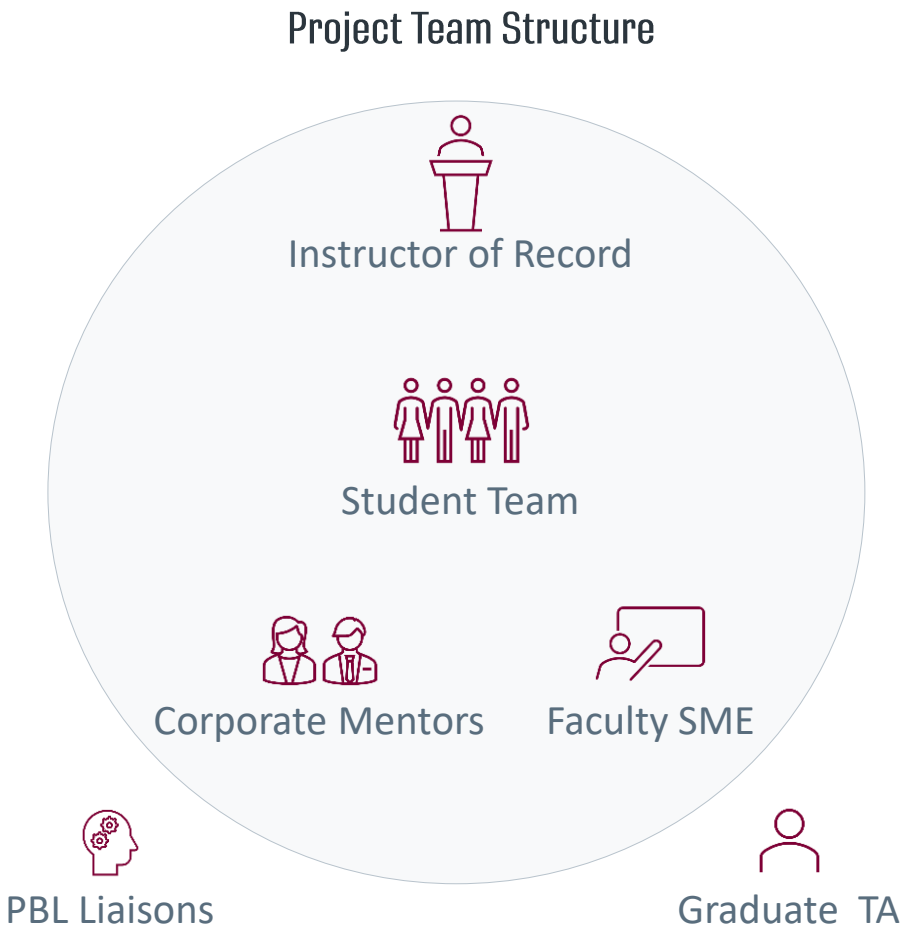
PROJECT BASED EDUCATION



- Teams of 3-5 students
- A project proposed by an outside entity that is expected to engage staff in the project with the students
- Access to subject matter expert(s) and advanced graduate student(s) as needed for project
- Coached by a person experienced in the project management approaches used by the sponsor
- An instructor to ensure the project is structured to achieve the desired learning outcomes and to evaluate student learning

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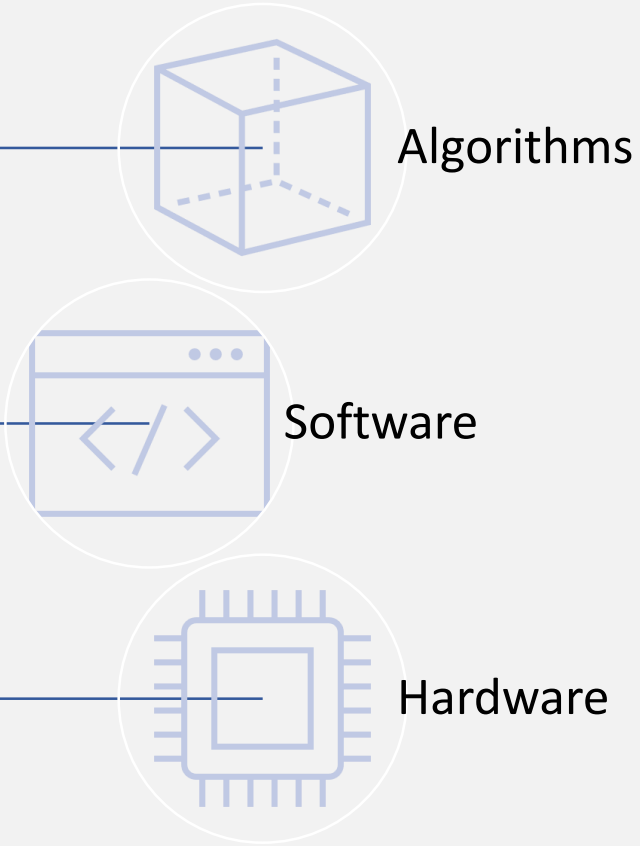
DIVERSE AND ENGAGED FACULTY

Pursuing purpose driven research



USE INSPIRED . . . BASIC RESEARCH

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DIVERSE AND ENGAGED FACULTY

Pursuing purpose driven research

ADVANCING THE ART OF THE POSSIBLE

- *Cybersecurity*
- *Artificial Intelligence and Machine Learning*
- *“Next G” Wireless Communication*
- *Cloud/Edge computing*
- *Quantum Information Science and Technology (QIST)*

IMPROVING THE HUMAN EXPERIENCE

- *Human-Machine Frontier*
- *Immersive Technology (Virtual Reality, Augmented Reality)*
- *Technology Policy, Business & Entrepreneurship*
- *Human-Centered Technology Design*

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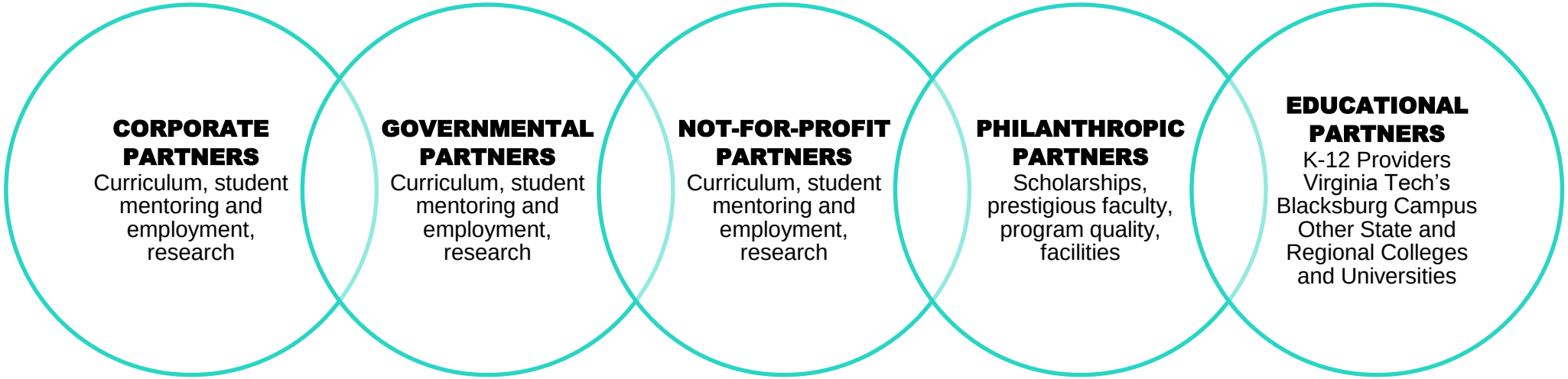
A COMMUNITY OF PARTNERS

Engaged in all aspects of the Innovation Campus



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A CATALYST TO THE TECHNOLOGY ECOSYSTEM OF THE REGION

CATALYST: An agent that provokes or speeds significant change or action

ECOSYSTEM: The complex of a community of organisms and its environment functioning as an ecological unit

M-W Online Dictionary (https://www.merriam-webster.com/)

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DEFINING SUCCESS

ENROLLMENTS AND DEGREES

- **Increasing the participation** of underrepresented groups in the technology ecosystem
- **Providing the workforce** needed to advance and grow the local technology economy

PARTNERSHIPS

- **Students participating** in project-based experiences with partner industries and other organizations
- Th**ose partners engaging** and re-engaging in those opportunities
- **Students finding successful employment** with our partners

TECHNOLOGY ECOSYSTEM

- **Growth and success** of technology companies already in the region
- **New companies starting up** or relocating in the region
- **Impacts of graduates and faculty** in the public and not-for-profit use and governance of technology

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TECH ON TAP

BROUGHT TO YOU BY VIRGINIA TECH. VT INNOVATION CAMPUS

SHAPING THE NEXT G EVOLUTION

SEPTEMBER 30, 2021 | 6:00 PM https://aimsbbis.vt.edu/totNextG

HOST PARTNER: PORT CITY Alexandria, Virginia

PARTNERS: Alexandria Library; Alexandria Economic Development Partnership

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THANK YOU

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