



Research & Innovation

The region is known for its game-changing research and innovation centers specializing in advanced manufacturing, logistics, and agriculture and food product innovation, each with significant institutional and corporate involvement. These assets contribute to the qualified local workforce and enhance local expertise in manufacturing, supply chain and distribution, and biotech and natural products, among other fields.

Research Institutions

Commonwealth Center for Advanced Manufacturing (CCAM)

Focus: Surface Engineering, Manufacturing Systems, Manufacturing Technologies, Welding/Joining, Additive Manufacturing, Composite Materials/Processing

Located at the Rolls-Royce Crosspointe Campus in Prince George County, this state-of-the-art innovation center is a collaborative R&D facility at which Virginia's flagship universities work with leading industry partners. CCAM's mission is to deliver production-ready manufacturing solutions and a return on investment for the participating world-class manufacturers, including Rolls-Royce, Siemens, Canon, Newport News Shipbuilding and more. CCAM members enjoy competitive industry advantages because they are directly involved in the research and own the intellectual property. Numerous greenfield sites and conditioned spaces are available to support facility locations within reach of the research center.

Commonwealth Center for Applied Logistics Systems (CCALS)

Focus: Logistics, Modeling & Simulation

CCALS offers logistics-heavy businesses and government agencies a new and unique R&D institution that will cut costs and accelerate new discoveries for logistics systems. University members Longwood University, UVA, Virginia Commonwealth University (VCU) and Virginia State University (VSU) join Fort Lee's Combined Arms Support Command and corporate logistics partners to collaborate on research and influence local workforce readiness for logistics in primary schooling through universities. The research center is expected to employ dozens of full-time staff and graduate/undergraduate research assistants to pursue R&D innovation for industry members.

Virginia Biotechnology Research Park

Focus: Forensics, Biotoxins, National Organ Transplantation Process

Home to over 59 life science companies, research institutes and state/federal laboratories, the Virginia Biotech Research Park in Richmond is at the heart of the nation's East Coast pharmaceutical and biotechnology corridor. Tenant companies range from early-stage companies to international healthcare organizations. The Virginia Biosciences Commercialization Center assists both domestic and foreign companies with bringing their products to U.S. markets. The Virginia Biosciences Development Center assists startups and early-stage companies in a business incubation facility. More than 70 companies have started there since it opened in 1995.





Corporate Research

The region is a hotbed for corporate research, with numerous local companies contributing to U.S. innovation and growing the expertise of the regional workforce progressively each year. Afton Chemical, DuPont, Dominion Resources, CapitalOne and numerous innovative small businesses have contributed to more than 200 patents filed annually for the last several years, not including over 100 additional patents contributed by the local workforce to companies based outside of the area.

Sabra Research Center of Excellence: Establishes best practices on all aspects of culinary, food science, production, engineering packaging, supply chain and product delivery, as well as collaborating with local universities to research new genetic strains of produce to optimize for local sourcing of materials.

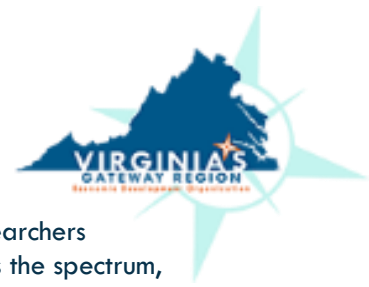
Evonik Industries: In 2014, Evonik doubled its local laboratory space, undertaking special joint operative research for customers, opening up entrepreneurial opportunities in developing chemical products for industrial, cosmetic and household use.

WestRock Center for Packaging Innovation: WestRock (formerly MeadWestVaco and RockTenn) tests coatings, polymers, and materials and metallurgy engineering for packaging products at its Center for Packaging Innovation. The company operates its corporate headquarters and a major corrugated packaging production facility in the area.

AdvanSix: With a major employment presence in the region, AdvanSix (formerly Honeywell) produces chemicals en masse, including caprolactam for textiles, phenol for internal combustion, ammonium sulfate for fertilizer, and nylon 6 resin. It conducts research locally for applications and improvements of these resins and chemicals.

Altria/Phillip Morris USA: Also headquartered in the area, Altria conducts research at its 450,000 square foot Center for Research & Technology in the Biotech Park in Downtown Richmond. The center produces innovations for tobacco and related products' safety (filters, etc.) and packaging, utilizing the metropolitan area's research and medical sciences expertise.





Academic Research

State Universities in Virginia offer major research capability, producing experienced researchers and graduates each year ready for work at area employers. Research types vary across the spectrum, not limited to patent-producing activities.

Virginia Commonwealth University: VCU has 28 individual research institutes ranging from numerous medical fields and environmental studies to public policy. VCU is the state's largest public university and a major national research university.

Specializations: Life Sciences, Medical Sciences, Social Sciences, Arts, Business, Engineering, Marketing, Urban Analysis

Virginia State University: VSU boasts world-renowned researchers and state-of-the-art facilities. It has linkages with other universities and research organizations and a broad spectrum of both publicly- and privately-funded projects

Specializations: Physics, Energy and Environmental Studies, Engineering Technology, Water Quality Management, Aquaculture

University of Richmond: The University of Richmond offers numerous opportunities for undergraduate students to conduct research independently or in collaboration with faculty.

Specializations: Arts, Social Sciences, Physics, Biology

Statewide University Research

Other nationally-renowned universities in Virginia contribute to R&D activities locally. Students and faculty across the state are ready to work to solve problems proposed by companies.

- ✦ **Virginia Tech:** Specializes in Engineering Research for Energy, Automotive, Propulsion and BioScience. Also conducts extensive agricultural research in broader fields not covered by VSU.
- ✦ **University of Virginia:** Research specialties include National Defense and Security, Medical (especially clinical and neuroscience), and Computer Science
- ✦ **Old Dominion University:** Research focuses on Cybersecurity, Transportation, Modeling & Simulation, and Coastal-related topics including Ports, Oceanography, Fish Ecology and more
- ✦ **George Mason University:** Physics, National Security, Business & Economics, various Social research programs, Sustainability and Environment.
- ✦ **James Madison University:** Research centers and institutes at the university focus on international affairs, National Security, Energy & Environmental Sustainability, Infrastructure & Information
- ✦ **Longwood University:** Faculty/student research that has recently focused on Business, Behavioral Science, Real Estate and more.

