

REGION 2: INNOVATION ECOSYSTEM IN REVIEW 2018-2019





GO VIRGINIA REGION 2 OVERVIEW

Region 2 consists of the cities of Covington, Lynchburg, Radford, Roanoke, and Salem; and the counties of Alleghany, Amherst, Appomattox, Bedford, Botetourt, Campbell, Craig, Floyd, Franklin, Giles, Montgomery, Pulaski, and Roanoke.

REGION 2 TARGETED INDUSTRY CLUSTERS

- Manufacturing
- Life Science and Health Care
- Food & Beverage Processing
- Emerging Technology & IT

POPULATION

Total Population: 781,897

20-34 Age Group: 166,775

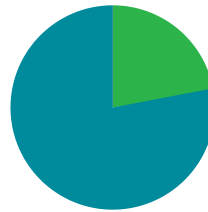
MEDIAN INCOME

\$41,152

SBIR/STTR Awards



The U.S. Small Business Administration's Office of Investment and Innovation coordinates federal government support for technology commercialization in fields with identified needs for research and development through the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) grant programs. These programs are referred to as "America's Seed Fund."

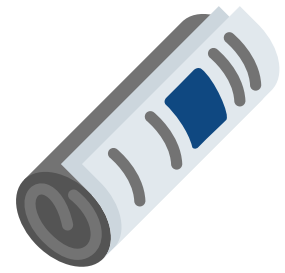


REGION 2 COMPANIES RECEIVED 22% OF VIRGINIA SBIR/STTR GRANTS AWARDED IN 2017

\$32.9 M

SBIR/STTR GRANTS WON BY 20 REGION 2 COMPANIES (2018)

ECOSYSTEM NEWS: 2018-2019



Major Industry News



1901 Group, a technology company in Northern Virginia with local roots, is undertaking a major expansion that promises to create 580 new jobs in Montgomery County over the next three years. Its new building in the Virginia Tech Corporate Research Center is under construction in 2019.

Torc's multi-million dollar acquisition by auto-giant Daimler Group is anticipated to create hundreds of additional jobs in the region as they expand in the **autonomous trucking** industry in Blacksburg, VA.



Southfield Capital, a private equity firm, partnered with **Protos Security**, a leading North American tech-enabled managed security services provider based in Botetourt County. This partnership will accelerate investment in software, facilitate growth into new markets and provide the tools necessary for Protos' continued growth and success in the region.

Block.one moves to Blacksburg and continues its rise from a startup in 2017 to a billion-dollar bank account in two years. The company's mission is to position itself as a leader for more mainstream adoption of distributed ledger (blockchain) software.



CytoRecovery, founded in the Virginia Tech Corporate Research Center in 2018, is a startup making first-generation cell sorters. They have already raised close to \$500,000 from outside investors across the Commonwealth.

Regional News



Heywood and Cynthia Fralin announce a landmark gift of \$50 million to Virginia Tech for the newly-named Fralin Biomedical Research Institute at VTC (formerly Virginia Tech Carilion Research Institute) to support the university's expanding focus on health science and technology in Roanoke. Its second building is slated to open in Spring 2020 and will hold an additional 30+ research teams.

Radford University and Jefferson College of Health Sciences officially merged in July 2019. The partnership with Carilion Clinic, known as **Radford University Carilion**, will deliver health science programming in Roanoke.



Liberty University announced plans to develop industry labs in the technology park adjacent to its Center for Energy Research & Education (CERE) in Forest, VA. Lab development is supported in part by a \$300,000 GO Virginia grant.



Carilion Clinic announced a \$300 million expansion to Roanoke Memorial Hospital that includes a new tower for emergency care and cardiovascular unit and a new behavioural health hospital across Jefferson Street.



In December 2018, Virginia Tech Foundation and Carilion Clinic announce another investment joint venture to complement their existing VTC Innovation Fund. The VTC Seed Fund concentrates its investment activities on the Virginia Tech and Carilion Clinic ecosystems as well as the greater Roanoke & Blacksburg region.

For more regional innovation news, please visit <https://www.valleysinnovation.org/news>



ECOSYSTEM SPOTLIGHTS

New Early-Stage Commercialization Support Programs in the Region

The region gained three early-stage ideation and commercialization support programs in 2018-2019.

In 2018, Hollins University hosted the **Innovation Commercialization Assistance Program (ICAP)** with the Virginia Small Business Development Center (SBDC) based on the lean startup methodology. ICAP came back to the region with new cohorts at Radford University and Roanoke College in the Summer 2019.

In the Fall 2018, FBRI at VTC launched its inaugural **HS&T Commercialization Fellows** cohort with Virginia Western Community College and RAMP. The program partnered graduate students with mentors and commercialization experts to explore the health science and technology (HS&T) research commercialization process.

With the support of a GO Virginia grant, The Advancement Foundation launched **The Innovation Mill** in March 2019 to support early-stage entrepreneurs and startups. The program is an expansion of its Gauntlet business competition and provides one-on-one coaching and cluster networking to promising high-growth companies. In its first quarter, the program identified 15 promising companies and worked with 5 initial startups and entrepreneurs.



The Roanoke Valley Entrepreneurial Ecosystem Coalition hosted its first **Regional Entrepreneurship Summit** with StarTank pitch event with keynote speaker, Thomas Osha, on January 16-17, 2019.

The event had 172 registered attendees with 15 sponsors from the private sector, higher education, community organizations, and local governments.



RAMP, founded in 2017, is a public/private partnership of Virginia Western Community College, the City of Roanoke, and the Roanoke-Blacksburg Technology Council.

RAMP's in-residence business accelerator serving high-growth startups in the STEM-H fields. 13 companies have completed the accelerator, and 6 are in residence during Summer 2019.

Accelerator Cohort Members

2017



2018



2019



RECENT COHORT NEWS



Beam Diagnostics Inc., a 2018 cohort company, received a \$300,000 NIH grant and a \$44,470 CIT grant for software used at checkups to more accurately predict alcohol misuse.

Micro-Harmonics, a 2019 RAMP cohort company received a \$750,000 NASA grant and \$50,000 in a matching CIT grant to develop components for extremely high-frequency communication systems.



Summit Committee Leaders



INNOVATION PIPELINE

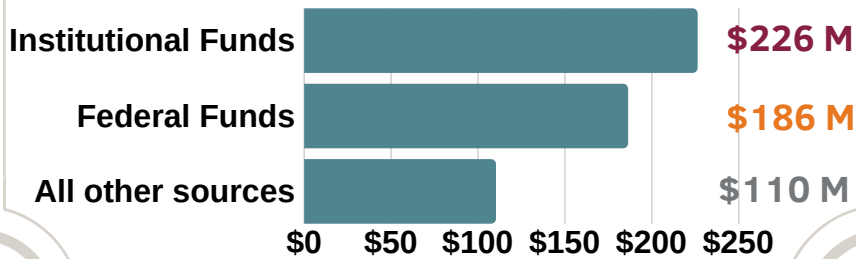


Research institutions' R&D Expenditures, regional STEM-H graduates, and number of patents filed are all assets to be leveraged and commercialized in a region's innovation pipeline. For a more in-depth exploration of the data, please visit <https://www.valleysinnovation.org/innovation-dashboard>

VIRGINIA TECH

RESEARCH & DEVELOPMENT EXPENDITURES (2017)

\$ 522.4 M



229
PATENTS
FILED IN REGION 2 IN 2015

Total STEM-H Graduates in Region 2 (2017) : 10,910

Regional STEM-H Talent Pipeline (2017)

HEALTH GRADUATES
6,404



SCIENCE GRADUATES
1,200



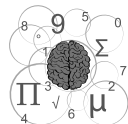
ENGINEERING GRADUATES
2,292



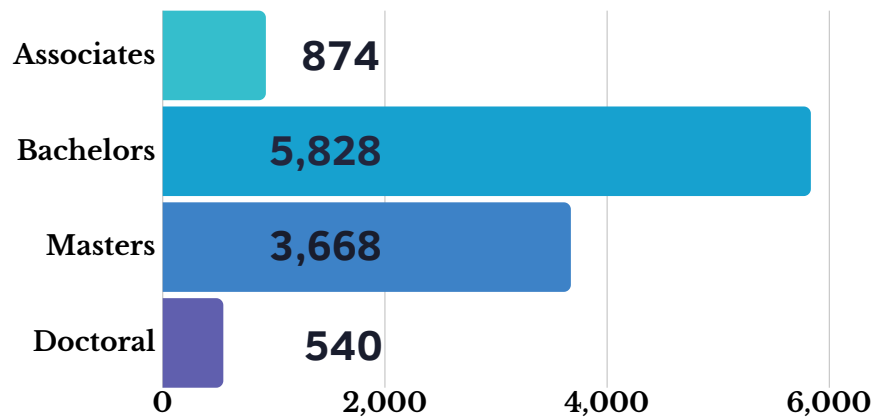
COMPUTER SCIENCE GRADUATES
555



MATHEMATICS GRADUATES
279



STEM-H GRADUATES 2017



Region 2 Higher Education Institutions

Doctoral-Granting Public Institutions: Radford University (including the former Jefferson College of Health Sciences); Virginia Tech (including the VTC School of Medicine)

Private Institutions: Edward Via School of Ostopathic Medicine (VCOM); Ferrum College; Hollins University; Liberty University; Roanoke College; Sweet Briar College; University of Lynchburg

Community Colleges: Central Virginia Community College; Dabney S. Lancaster Community College; New River Community College; Virginia Western Community College

Did You Know...

Virginia Tech is the 5th largest producer of engineers in the US?



VALLEYS INNOVATION COUNCIL

Mission

Valleys Innovation Council shapes the region's innovation economy and supporting ecosystem by connecting, communicating, and collaborating with stakeholders to align regional assets and priorities.

Focus Areas

- Promoting Regional Innovation Assets and Successes
- Tracking the Regional Innovation Economy
- Developing and Supporting Research Commercialization Strategies

VIC Initiatives and Activities of 2018-19

- ▶ **Organizational Launch-** Valleys Innovation Council launched in January 2018 out of The Roanoke-Blacksburg Innovation Network with a bold new vision and new board and staff leadership.
- ▶ **Capital Ecosystem Development-** With the support of a \$77,207 GO Virginia grant, VIC created the region's first capital ecosystem landscape study and is now developing new capital sources and pathways through activities including angel investing seminars in Roanoke, Radford, and Salem and working with angel investors to launch Common Wealth Angels, a regional angel investor network.
- ▶ **Advocacy in the Region and State-** Working strategically at the regional and state levels to drive the innovation economy and encourage support for research commercialization.
- ▶ **Innovation Corridor-** Partnering with the Roanoke City on a National League of Cities Commitment to Action to develop marketing and investment strategies for the Roanoke Innovation Corridor.
- ▶ **Tracking the Regional Innovation Economy-** Establishing baseline measures of the regional innovation economy and supporting ecosystem and benchmarked against peer regions.
- ▶ **Innovation and Entrepreneurship Coalition-** In August 2019, VIC became the facilitator for the Roanoke Regional Entrepreneurship Coalition (RREC) of 25+ higher education, local governments, community organizations, and service providers who work to better coordinate activities across organizations and identify resources to support innovation + entrepreneurship (I+E) in the region.
- ▶ **Regional Entrepreneurship Summit and StarTank-** VIC served as a fiscal sponsor and worked with the RREC to hold a 2-day Summit with pitch event for almost 200 participants in January 2019.

VIC Financial Supporters

