2025
GROWTH AND DIVERSIFICATION PLAN
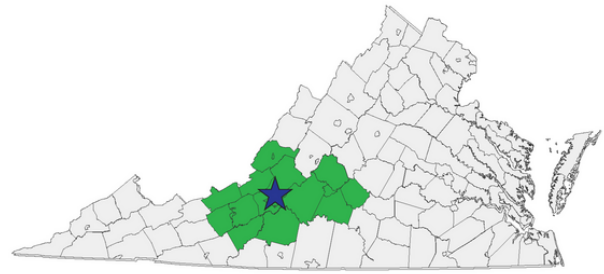
GO VIRGINIA
REGION 2

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INTRODUCTION

Virginia's Initiative for Growth and Opportunity (GO Virginia or GOVA) was created to grow jobs that pay higher than regional average wages and attract additional investments to stimulate economic growth in the Commonwealth. This requires a focus on industries with high growth potential. The 2025 Growth and Diversification (G&D) Plan provides a roadmap for using GOVA funding in Region 2, which is comprised of counties, cities, and towns in the New River Valley, Roanoke Valley and Alleghany region, and the Greater Lynchburg Area.

Since 2017, GO Virginia's Region 2 has invested in 53 projects. During this time, the region has experienced the advancement of automated and smart technologies, growing demand for high-skilled and experienced labor, and instances of economic instability. During the COVID-19 pandemic, this region had layoffs in manufacturing, early retirements, and business closures. With the growth of remote work, commercial buildings saw increased vacancies, regional internet infrastructure expanded, and the region became more attractive to remote workers from regions with higher costs of living. Today, the Region 2 faces another kind of challenge with cuts to federal spending that have historically supported many of the higher education, healthcare research and development enterprises, and workforce development. These activities have often served as the backbone to much of the region's private industry growth and prosperity. Moreover the continued evolution of technologies like artificial intelligence (AI) poses opportunities for growth if embraced by regional employers, but also shifts in employment needs. Regardless, GO Virginia funding generates positive activity. This report reviews that activity to date and proposes strategies for the future.

Goals of the Growth & Diversification Plan and GO Virginia Region 2

→ Fund Local Public and Nonprofit Entities to Support Private Sector Growth

Region 2 receives **$1.5 million annually** in state funds to support projects that foster growth in targeted industry clusters. Local government entities, organizations working on their behalf, nonprofit organizations, and workforce/education institutions may apply for these funds to support initiatives that **cultivate high wage jobs and private investment in these target clusters.**

→ Identify and Grow Target Industry Clusters

Region 2's economic strategy is anchored in four high-potential industry clusters that reflect the region's competitive advantages and growth opportunities:
1) Life Sciences and Biotechnology;
2) Manufacturing for Transportation, Energy, & Autonomy;
3) Advanced Materials Manufacturing; and
4) IT, Engineering Services, and Emerging Technology.

→ Grow Clusters through Four Strategic Activity Areas

GO Virginia strategic investments may include one or more of the following activities that support target cluster growth:
1) Site development and infrastructure;
2) Talent development, attraction, and retention;
3) Start-up ecosystem development; and
4) Business scale-up.

Region 2 Target Industry Clusters

Life Sciences & Biotechnology

Region 2's cluster is rooted in a history of research, development, and entrepreneurship, focusing on disease prevention and treatment, health and aging, veterinary medicine, and plant sciences. The cluster is supported by a strong foundation of higher education research assets such as the Fralin Biomedical Research Institute, providing essential resources and opportunities to accelerate scientific discoveries and technological advancements. The cluster offers commercialization of new therapies, enhancement healthcare delivery systems, and manufacturing of new medical devices.

Manufacturing for Transportation, Energy & Autonomy

This cluster focuses on producing components, systems, and technologies for modern mobility, energy solutions, as well as smart and connected manufacturing processes. This includes the design and fabrication of larger-scale automotive and aerospace; electric and autonomous transportation systems; heavy machinery for energy sectors. Manufacturers in this cluster often have expertise in machining and motor-control systems and tend to produce large-scale capital and consumer goods.

Advanced Materials Manufacturing

Advanced Materials Manufacturing involves the design, development, and production of high-performance materials used across multiple industries such as aerospace, automotive, defense, and energy. Chemical, packaging, and other material manufacturers develop and process composites, nanomaterials, lightweight metals, and polymers that enhance product strength, durability, and efficiency. With R&D assets such as Virginia Tech's Macromolecules Innovation Institute and a network of manufacturers and technical training programs, Region 2 is positioned to grow a hub for advanced materials innovation and production.

IT, Engineering Services & Emerging Technology

This cluster includes businesses that design and develop machines, materials, instruments, structures, processes, and/or systems that improve business performance and competitiveness in a rapidly evolving digital economy. Knowledge services include software engineering, cloud computing, AI, cybersecurity, and data analytics. Architectural and engineering services promote innovative and sustainable infrastructure across industries. Other consulting services create tailored solutions to enhance productivity and data-driven decision-making.

Investment Strategies

Site Development & Infrastructure

Improving sites and infrastructure used to meet the needs of priority industry clusters.

Workforce Development

Addressing the need for talent development, attraction, & retention in higher than median-wage jobs.

Start-up Ecosystem

Promoting access to capital, mentorship, and training to support business development.

Cluster Scale-up

Accelerating the promotion and development of innovative clusters.

GO VIRGINIA IMPACTS TO-DATE
as of October 1st, 2025

The GO Virginia Region 2 Council, comprised of 29 industry representatives and industry-support partners, oversees one of the most active GOVA regions in the Commonwealth. According to the Virginia Department of Housing and Community Development Dashboard, Region 2 has the second highest number of *completed* projects and the highest total number of projects. The data below provides metrics that illustrate the activities, outputs, and outcomes contributing to the growth of the regional economy and Region 2's target clusters. To gauge public opinion of GO Virginia's impacts, regional industry, nonprofits, and government completed a 5-minute an online survey. The Region 2 Council also held four 2-hour workshops in locations across Region 2 to assess regional strengths and needs, and plan for future GOVA Region 2 funding.

56
Funded
Projects
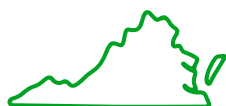
$17.5 M
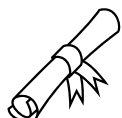GO Virginia
Funds granted

$19 M
Matching Funds
contributed

961
Jobs Created
or Filled

302
Partners
Engaged

Workforce Development	Site Development	Start-up Ecosystem
1,986 Credentials Awarded	**337** Acres Advanced	**66** Businesses Created
3289 People Trained or Upskilled	**4,325** Linear feet of Infrastructure Constructed	**546** Entrepreneurs Served
746 Internships Created	**96** Acres Impacted	**225** Mentors Engaged
543 Students Dual Enrolled	**38** Prospect Site Visits	**$12.7 M** Capital Raised

Is Region 2 Better?

A survey was distributed through the GOVA Region 2 listserv, regional economic development organization listservs, other partner listservs, and four GOVA strategy development workshops. 56 organizations provided their input: 35% private businesses, 25% government, 28% nonprofits, and 12% individuals. Many respondents noted that the programming and infrastructure developed through GOVA have yet to fully manifest larger impacts. Several commentors agreed that progress has been made and key outcomes include more physical infrastructure for business development and attraction, a more robust workforce pipeline, greater private-public partnerships contributing to economic and workforce development, and a stronger start-up ecosystem.

72% Agree: Region 2's economy is better than it was in 2015.

60% Agree: Through GO Virginia funding, small businesses are better supported in Region 2.

67% Agree: Through GO Virginia funding, the region has grown high skilled, high wage jobs.

56% Agree: Through GOVA funding, the number and quality of business-ready sites has increased.

72% Agree: The region has leveraged GO Virginia funding to attract additional funding to the region.

74% Agree: The GOVA program has been a beneficial use of state funding to help regional economies grow and diversify.

Remaining Challenges

Survey respondents and 35 workshop attendees emphasized that additional work and an increase in the sheer volume of resources is needed to accelerate target cluster growth. Participants called for:

1. Growing existing businesses through technology adoption, process improvements, workforce training and attraction, and supply-chain and market development;
2. Improving start-ups' capital access to promote employment growth; and
3. Spreading resources more broadly across Region 2.

Priorities varied by industry cluster:

Life Sciences & Biotech
1. New start-ups
2. New resources to support cluster businesses
3. Employment growth

Manufacturing
1. Growing existing businesses
2. Employment growth
3. New resources to support cluster businesses

IT & Engineering Services
1. New start-ups
2. New technology adoption & process innovations
3. Employment growth

Broader challenges for businesses and their workers still include:

Childcare Average childcare for infants and toddlers in Region 2 costs $7.0-$10.3K per child annually. That is 8-12% of median family income needed per child.

Housing More than 35,300 or 9-13% of Region 2 households face severe cost burdens, meaning they spend more than half of their incomes on housing.
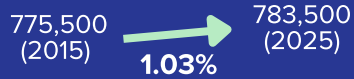
Behavioral Health In Virginia, there were 13 deaths by suicide for every 100,000 people. In Region 2, there were 17 deaths by suicide for every 100,000 people.

Changes in Region 2 Since 2015

Population

775,500
(2015) → 783,500
(2025)
1.03%

Region 2's population has seen **minimal growth, concentrated in the 30-40 age group or millennials (+11,000) and 70+ age group or baby boomers (+25,000)**. Virginia and the U.S. have seen growth in similar age groups; however, state and national population growth were stronger, at 5.19% and 5.40% respectively.

Cluster Employment

62,005
(2015) → 68,209
(2024)
10%

Region 2 job numbers are about the same as in 2015, with the exception of the New River Valley with an 8% growth rate, comparable to state growth. Target cluster employment, has experienced **10% growth since 2015**. While this lags behind the state (14%) and nation (15%), this growth **reflects the investments made in these industry clusters.**

Unemployment

5.20%
(2015) **-3.8%** → 3.25%
(2024)

Region 2 was at **full-employment until recently**. If a recession occurs, regional unemployment in retail and manufacturing will increase. Already, manufacturers such as Volvo have laid off workers in preparation for a possible economic downturn. **Labor force participation was 60.4% in 2024, lower that Virginia and the U.S.,** possibly due to the **higher proportion of eligible workers with lower education attainment.** Many of these workers left the labor force during the COVID-19 Pandemic.
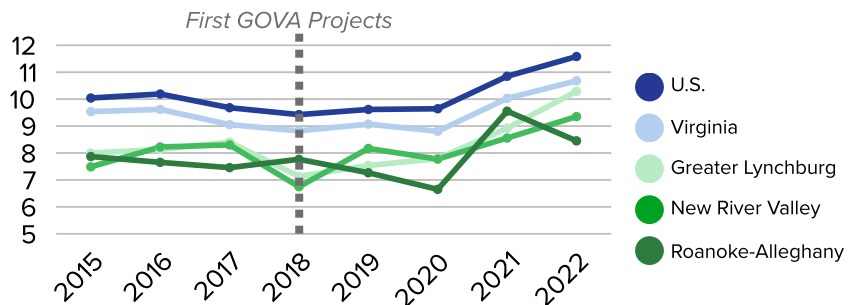
Average Earnings

$47,896
(2015) **39%** → $66,360
(2024)

Region 2's average earnings gradual increased between 2015 and 2019, but saw significant increases after COVID-19. Region 2 did saw **faster wage growth after COVID-19 (26.6%) than the nation (23.9%).** Traditionally, the region's earnings are lower than Virginia ($89,078 in 2024) and the U.S. ($85,779 in 2024).

Start-Ups

Establishment Entry Rates have increased faster than the state and U.S. since 2018, indicated a friendlier ecosystem for start-ups.

First GOVA Projects

Legend: U.S. | Virginia | Greater Lynchburg | New River Valley | Roanoke-Alleghany

Region 2 Sites

Of the 193 sites, 7 have an "industry-ready" score of 4 or higher. Region 2 needs more ready sites and land for megasite development. More site information is in the Online Appendix B & C.

Sub-Region	Number of Sites	Total Acreage of Sites	Average Acreage per Site
Greater Lynchburg	84	4,526	55
Roanoke-Alleghany	98	4,464	46
New River Valley	11	2,471	224
Total	**193**	**11,461**	**108**

Sources: Lightcast Dataset 2025Q2, lightcast.io; Census Business Dynamics Statistics, bds.explorer.ces.census.gov; Virginia Economic Development Partnership, Site Selection, vedp.org/site-selection.

TOP 10 CROSS-CLUSTER IN-DEMAND OCCUPATIONS

All four target industry clusters were in need of workers with skills outside the subject matter domain of the four target clusters. These occupations tend to focus on administrative, IT and managerial work.

| | High School to 2 Year Degree | | Bachelor's Degree | | Graduate(s) Degree |

	Occupation	2015 Jobs in Region	2025 Jobs in Region	Job Change (2015-2025)	Average Annual Openings	Position Titles
	General and Operations Managers	3,888	6,739	73%	701	Chief Financial Officer, Finance Director
	Finance Manager	725	1,163	60%	112	Operations Manager, Business Manager
	Human Resources Specialists	1,143	1,918	68%	220	HR Generalist, Talent Acquisition Specialist
	Accountants and Auditors	2,634	2,972	13%	284	Certified Public Accountant, Internal Auditor
	Computer Systems and Information Security Analysts	809	1,411	30%	147	Business Systems Analyst, IT Systems Analyst
	Computer User Support Specialists	1,242	1,298	5%	125	Help Desk Technician, IT Support Specialist
	Network and Computer Systems Administrators	851	713	(16%)	56	Network Administrator, Computer Repair
	Sales Representatives, Wholesale and Manufacturing,	3,279	2,487	(24%)	285	Territory Sales Representative, Inside Sales Representative
	First-Line Supervisors of Office, Administrative Support Workers	3,724	3,176	(15%)	379	Office Supervisor, Administrative Team Lead
	Bookkeeping, Accounting, and Auditing Clerks	4,365	3,623	(17%)	502	Accounts Payable Clerk, Payroll Clerk

Source: Lightcast, Occupation Table, Staffing Patterns, Dataset 2025Q2

SUMMARY OF TARGET CLUSTERS

Average Hourly Wage in GO Virginia Region 2

Cluster	Entire Region	Urban	Rural
All Industries	**$26**	**$27**	**$24**
Advanced Materials Manufacturing	$37	$36	$38
Manufacturing for Transportation, Energy & Autonomy	$36	$35	$38
Life Sciences & Biotechnology	$32	$34	$24
IT, Engineering Services & Emerging Technology	$42	$47	$38

2025 Target Cluster Location Quotients

Location Quotient (LQ) measures the workforce concentration in a region compared to the national average. Both manufacturing clusters excel in this region, employing four and three times more workers than the national average. IT, Engineering Services & Emerging Technology is lower than the national average, indicating a need for cluster growth if our region is going to have the best workers.

	LQ
Manufacturing for Transportation, Energy, & Autonomy	4.08
Advanced Materials Manufacturing	3.08
Life Sciences & Biotechnology	1.32
IT, Engineering Services, & Emerging Technology	0.63
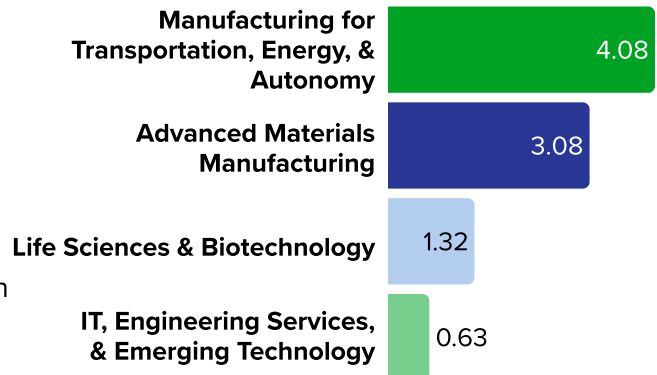
2024 Export Sales and GRP by Cluster

Each industry cluster in GOVA Region 2 contributes significantly to the regional economy, illustrated by Gross Regional Product (GRP) and new money coming into the region through export sales.

● Export Sales ($Millions)   ● Gross Regional Product ($Millions)

Cluster	Export Sales	GRP
Manufacturing for Transportation, Energy, & Autonomy	$9,572	$2,969
Advanced Materials Manufacturing	$5,762	$2,310
Life Sciences & Biotechnology	$2,662	$3,010
IT, Engineering, & Emerging Technology	$924	$1,622
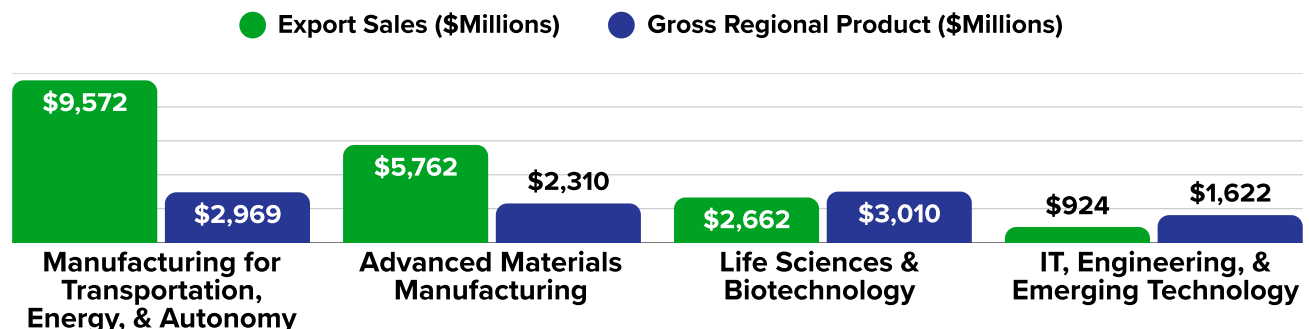
Source: Lightcast Dataset 2025Q2

LIFE SCIENCES & BIOTECHNOLOGY

Region 2's Life Sciences and Biotechnology cluster is rooted in a long history of research, development, and entrepreneurship, focusing on disease prevention and treatment, health and aging, veterinary medicine, and plant sciences. The cluster is supported by strong higher education research assets, which provide resources, talent, and collaborative opportunities that accelerate scientific and technological advancements. This ecosystem promotes commercialization of new therapies, enhanced healthcare delivery, and innovative medical devices.

Sub-Cluster Summary
Research & Development - Drives discovery and progress in life sciences
- **120** Payroll Businesses

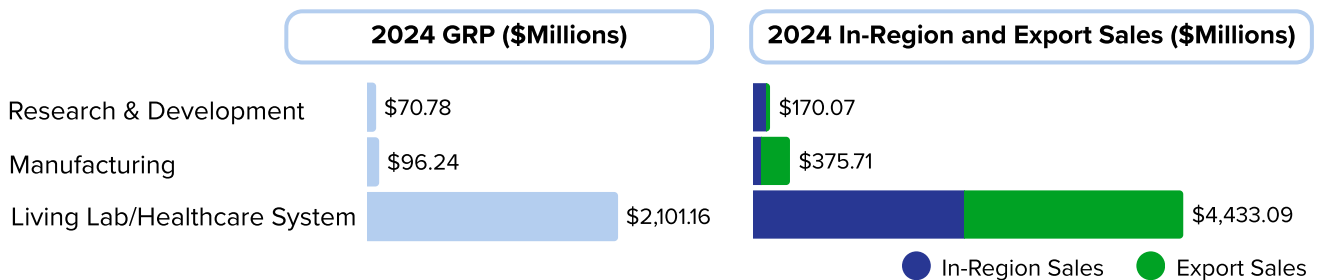**Manufacturing** - Transforms biotech innovations into tangible products
- **78** Payroll Businesses

Living Laboratory/Healthcare System - Provides real-world settings for testing biotech solutions in healthcare.
- **135** Payroll Businesses

With over 27,000 jobs, this cluster has seen 11.1% job growth since 2015, greater than the national average, and has a 1.32 location quotient, all of which indicates regional competitiveness and specialization compared to similar sized U.S. regions. Key industries that drive export sales include Pharmaceutical Preparation, Surgical Appliances Manufacturing, Hospitals, Nursing and Continuing Care Facilities. The growth of this cluster relies on an ecosystem of assets including but not limited to the Fralin Biomedical Research Institute at Virginia Tech Carilion, the Roanoke-Blacksburg Innovation Alliance VITAL Program, the Blue Ridge Partnership for Health Careers, and life science education programs like those at Virginia Western Community College.

2024 GRP ($Millions)

Research & Development	$70.78
Manufacturing	$96.24
Living Lab/Healthcare System	$2,101.16

2024 In-Region and Export Sales ($Millions)

Research & Development	$170.07
Manufacturing	$375.71
Living Lab/Healthcare System	$4,433.09

● In-Region Sales   ● Export Sales

Subcluster	2017 Jobs	2024 Jobs	Job Change 2017-2024	Projected 2030 Jobs	Projected Job Change 2024-2030
Research & Development	652	737	13%	746	1%
Manufacturing	1,060	975	-8%	995	2%
Living Laboratory Healthcare System	22,615	25,300	12%	27,126	7%

Source: Lightcast, Industry Table, Q2, 2025

Top 10 Life Sciences and Biotechnology In-Demand Skilled Occupations

Employers highlight two occupation areas that are in high demand: 1) technicians and technologists that support life science research and healthcare labs and 2) medical, veterinary, and other science professionals that serve as principle investigators and managers of research and development labs as well as applied healthcare and veterinary services. Below are the cluster's top "skilled" in-demand occupations with higher than average wages. "In-demand" is defined by job growth and annual openings.

■ (green) High School to 2 Year Degree ■ (dark blue) Bachelor's Degree ■ (light blue) Graduate Degree(s)

Occupation	2025 Jobs	Job Change 2015-2025	Average Annual Openings	Position Titles
Clinical Laboratory Technologists	600	2%	92	Laboratory Tech, Medical Tech, Family Medicine Physicians
Radiologic Technologists	483	37%	60	Radiology Tech, Lead CT Tech
Medical & Health Services Managers	488	40%	112	Healthcare Admin, Clinical Manager, Nursing Home Director
Veterinary Technologists	303	72%	44	Veterinary Laboratory Technician, Animal Health Technician
Veterinarians	275	7%	22	Small Animal Veterinarian, Veterinary Surgeon, Large Animal Veterinarian
Phlebotomists	227	(2%)	58	Mobile Phlebotomist, Laboratory Phlebotomy Technician
Magnetic Resonance Imaging Technologists	129	(7%)	26	MRI Technologist. MRI Clinical Applications Specialist
Medical Scientists, Except Epidemiologists	114	207%	33	Clinical Research Scientist, Biomedical Scientist
Medical Equipment Repairers	65	49%	21	Biomedical Equipment Technician, Field Service Engineer
Biological Technicians	61	36%	66	Laboratory Research Assistant, Microbiology Technician

In-Demand Occupations Lacking Enough Annual Graduates from Training Programs

- Veterinary Technologists and Technicians
- Licensed Practical & Licensed Vocational Nurses
- Magnetic Resonance Imaging Technologist

Advanced Skills
- Magnetic Resonance Imaging
- Interventional Radiology
- Ionizing Radiation
- ARRT CT Certification
- Digital Radiology

Needed Skills
- Radiology
- Patient Positioning
- Phlebotomy
- X-Ray Computed Tomography
- Registered Nurse (RN)

Core Competencies
- Communication
- Management/Leadership
- Customer Service
- Research
- Coordinating

Source: Lightcast Dataset 2025Q2

Life Sciences and Biotechnology Cluster Assets

Existing Programs

- Community colleges and universities
- Blue Ridge Partnership for Health Science Careers
- Central Virginia Community College CTE Academy and Health Science programs
- City of Roanoke Biotech Project
- Fralin Biomedical Research Institute at VTC
- Fralin Life Sciences Institute at Virginia Tech
- Project VITAL
- Radford University Carilion
- Regional Accelerator & Mentoring Program (under RBIA)
- Virginia Western Community College Life Science program
- Virginia Tech Carilion (VTC)

Active Players In Ecosystem Building

- Carilion Clinic
- Centra Health, Inc.
- Lewis-Gale
- Local economic developers and workforce boards
- Lynchburg Regional Business Alliance
- Onward, New River Valley
- Roanoke-Blacksburg Innovation Alliance (formerly Verge)
- Roanoke-Blacksburg Technology Council (RBTC)
- Regional Entrepreneurship Initiative
- Roanoke Regional Partnership
- The Advancement Foundation
- VA Bio
- VA Small Business Development Center (Greater Roanoke & NRV and Lynchburg offices)
- Veteran Support Network
- Virginia Economic Development Partnership
- Virginia Talent + Opportunity Partnership (V-TOP), Veteran Support Network, and other support organizations

GOVA Project Spotlight

Virginia Innovations & Technology Advancements in Life Sciences (VITAL), (2025-2027)
GOVA funding: $4,987,029

Project VITAL establishes new research cores, expands workforce development programs, and creates a collaborative network connecting Region 2 life science partners with industry partners across the Commonwealth. The Roanoke Blacksburg Innovation Alliance (RBIA), an organization focused on growing the region's technology and biotechnology sectors, will collaborate with Virginia Tech and Carilion Clinic to lead the Region 2 effort. Project VITAL will direct $4.9 million to strengthen the region's position at the forefront of fields such as medical devices, oncology therapeutic research, and neurotechnology. Project VITAL aims to create 1,315 jobs over five years and lead to a total economic impact of $40.8 million.

GOVA funding helps strengthen the life science and biotechnology innovation corridor in Southwest Virginia through a proof-of-concept program and innovation fellowships facilitated through LAUNCH: Center for New Ventures at Virginia Tech. Both VT programs are specifically designed to encourage biomedical startups out of the university. Virginia Western Community College, the Roanoke Blacksburg Technology Council, and the Blue Ridge Partnership Health Science Careers work to boost the biotechnology talent pipeline in the region.

Virginia Commonwealth University and Activation Capital lead similar efforts in Region 4 around Richmond/Petersburg, and the University of Virginia and CvilleBioHub lead Region 9 in Charlottesville.

Credit Diane Deffenbaugh, Virginia Tech

Life Sciences and Biotechnology Growth Strategies and Activities

The following activities and project ideas were collected through discussions with industry partners and at workshops. They reflect GOVA Region 2 priorities. **Applicants should align their proposals with these priorities and build on past and current projects,** listed in Appendix A. GO Virginia believes in collaboration and regional alignment as drivers of community growth and prosperity. Applicants are urged to coordinate their projects accordingly.

Prioritized Activities and Projects	Investment Area(s)
Strategize and implement ways of attracting private and alternative funding for research and start-up growth	Start-Up and Scale-Up
Create more opportunities for start-up collisions and mentorship	Start-Up
Increase start-ups' regional prominence and voice by integrating them into organizational boards	Start-Up
Encourage affordable lab and production space (e.g. subsidies, identifying and refurbishing unused spaces)	Start-Up and Infrastructure
Implement innovative talent retention and attraction programs, particularly for scientists and managerial professions, centered on local universities and regions that may currently draw talent from this region (e.g. North Carolina)	Talent
Expand entrepreneur-in-residence activities to draw expertise from outside region and accelerate technology commercialization	Start-Up and Scale-Up
Grow and build connections to regulatory expertise	Start-Up
Conduct a competitive market analysis to hone in on market needs, refine life science and biotech cluster, and develop strategies for distinguishing the region's cluster nationally	Scale-Up
Develop clear career pathways from entry through senior level employment to illustrate a lifetime of regional career opportunities in the life sciences and biotech cluster	Talent
Catalyze technology adoption and development among cluster businesses (e.g. software, diagnostic devices, biopharmaceuticals, and catalogued university IP)	Scale-Up

*Other identified needs and activities that may not be fundable through GOVA: market this region as a life science hub, more affordable and accessible child care workers, create a K-16 life science dedication school, grow the STEM-H teacher pipeline, align K-12 curriculum for life sciences

MANUFACTURING FOR TRANSPORTATION, ENERGY, & AUTONOMY

Businesses in this cluster focus on producing components, systems, and technologies for modern mobility, energy solutions, as well as smart and connected manufacturing processes. This includes the design and fabrication of larger-scale equipment for automotive and aerospace, electric and autonomous transportation systems, and machinery for nuclear and other energy generation and storage.

Sub-Cluster Summary
Machinery Automation - Smart, autonomous manufacturing.
- **73** Payroll Businesses

Transportation - Making autonomous, green mobility.
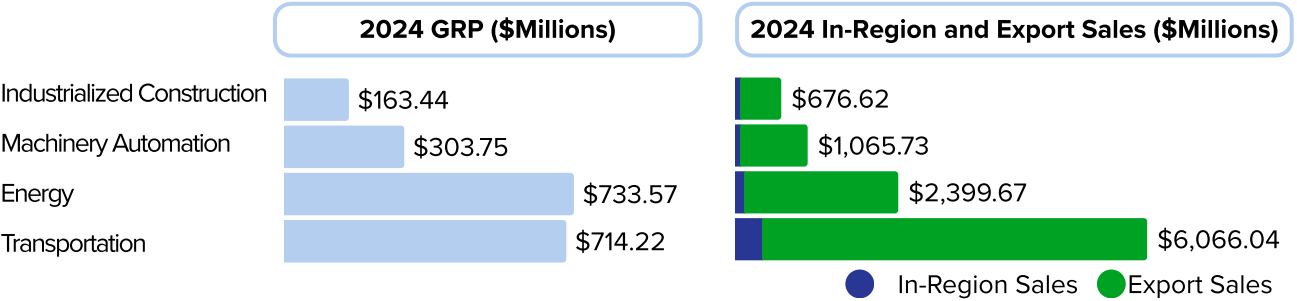- **50** Payroll Businesses

Energy - Clean power for transport and industry.
- **43** Payroll Businesses

Industrialized Construction - Efficient builds for energy and mobility
- **37** Payroll Businesses

In Region 2, this manufacturing cluster supports over 20,400 jobs and has a location quotient of 4.08—meaning four times the amount of workers than similar regions of this size—which indicates a significant competitive advantage. From 2019 to 2024, the region saw the most job growth in machinery automation, while energy and industrialized construction experienced modest increases and transportation declined. Looking ahead to 2030, employment in machinery automation and energy is projected to continue growing, with little change expected in transportation and industrialized construction.

2024 GRP ($Millions)

Industrialized Construction	$163.44
Machinery Automation	$303.75
Energy	$733.57
Transportation	$714.22

2024 In-Region and Export Sales ($Millions)

Industrialized Construction	$676.62
Machinery Automation	$1,065.73
Energy	$2,399.67
Transportation	$6,066.04

● In-Region Sales ● Export Sales

Subcluster	2017 Jobs	2024 Jobs	Job Change 2017-2024	Projected 2030 Jobs	Projected Job Change 2024-2030
Industrialized Construction	2,921	2,553	-13%	2,584	1%
Machinery Automation	2,568	2,971	16%	3,249	9%
Energy	5,947	6,454	9%	6,819	6%
Transportation	6,638	7,775	17%	7,967	2%

Source: Lightcast Dataset 2025Q2

Top 10 Manufacturing In-Demand Skilled Occupations

While a handful of in-demand occupations require a stronger pipeline of workers completing certifications and degrees, filling and retaining workers in these occupations more often requires greater career opportunity awareness and problem solving skills from youth graduating high school.

Legend: ■ High School to 2 Year Degree ■ Bachelor's Degree ■ Graduate Degree(s)

	Occupation	2025 Jobs in Region	Job Change 2015-2025	Average Annual Openings	Position Titles
■	First-Line Supervisors of Production and Operating Workers	1,301	11%	271	Production Supervisor, Shift Supervisor, Manufacturing Associate
■	Welders, Cutters, Solderers, and Brazers	1,157	42%	289	MIG Welder, Fabrication Specialist, Soldering Technician
■	Industrial Machinery Mechanics	884	(1%)	227	Maintenance Mechanic, Machinery Technician, Equipment Specialist
■	Industrial and Mechanical Engineers	1,041	13%	163	Manufacturing Engineer, Process Improvement Engineer
■	Machinists	622	(15%)	151	CNC Machinist, Tool and Die Maker, Precision Machinist
■	Sales Reps, Wholesale and Manufacturing	533	15%	284	Territory Sales Rep., Technical Consultant, Account Manager
■	General and Operations Managers	498	46%	897	Operations Director, Business Operations Manager, Plant Manager
■	Maintenance and Repair Workers	415	2%	403	Facilities Maintenance Technician, Building Maintenance Worker, General Repair Technician
■	Chemical Equipment Operators and Tenders	342	156%	84	Chemical Process Operator, Reactor Technician, Production Technician
■	Industrial Production Managers	341	43%	64	Manufacturing Manager, Plant Production Supervisor, Operations Manager

In-Demand Occupations Lacking Enough Annual Graduates from Training Programs

- First-Line Supervisors of Production and Operating Workers
- Machinists
- Welders, Cutters, Solderers, and Brazers
- Chemical Equipment Operators and Tenders
- Industrial Machinery Mechanics

Advanced Skills
- Welding
- SolidWorks, AutoCAD
- Fabrication
- Industrial Repair and Maintenance
- ISO 9000 Series

Needed Skills
- Machinery, HVAC, Plumbing
- Continuous Process Improvement
- Power Tool Operation
- Preventive Maintenance

Core Competencies
- Communication
- Operations
- Management/Leadership
- Customer Service
- Problem Solving

Source: Lightcast Dataset 2025Q2

Manufacturing for Transportation, Energy & Autonomy Cluster Assets

Existing Programs

- Community colleges and universities
- ASE Auto Servicing Excellence
- Advanced Vehicle Dynamics Lab
- Center for Automotive Fuel Cell Systems
- Center for Engineering Research and Education (CERE) Industry Labs
- MidAtlantic Aviation Partnership (MAAP)
- Mountain Gateway Community College
- Regional Accelerator & Mentoring Program (under RBIA)
- Virginia Smart Road
- Virginia Tech Transportation Institute (VTTI)

Active Players In Ecosystem Building

- Local economic developers and workforce boards
- Additive Materials and Advanced Manufacturing Tech Hub in the NRV and Danville
- Lynchburg Regional Business Alliance
- Onward New River Valley
- Roanoke-Blacksburg Innovation Alliance
- Roanoke-Blacksburg Technology Council (RBTC)
- Regional Entrepreneurship Initiative
- Roanoke Regional Partnership
- The Advancement Foundation (TAF)
- VA Small Business Development Center (Greater Roanoke & NRV and Lynchburg offices)
- Virginia Economic Development Partnership
- VTOP, Veteran Support Network, and other support organizations

GOVA Project Spotlight

Credit Liberty University

Center for Engineering Research and Education (CERE) (2018-2020)
GOVA funding: $1,586,100

CERE Industry Labs worked with Liberty University and Framatome (AREVA Inc.) to create four labs: Chemical/Material Lab, EMC Lab, Calibration Lab, and a Non-Destructive Testing Lab. GOVA funding supported site preparedness on a 28-acre lot in Bedford, VA, and establishing the labs. Outcomes from the GOVA project included 483 students trained, 81 certificates awarded, 60 jobs created, and 7 educational partnerships created.

Manufacturing Workforce Strategy for the Lynchburg Region (2024-2025)
GOVA funding: $40,500

This project aligned Greater Lynchburg's talent pipeline with manufacturing clusters and improved educators understanding of manufacturers' talent needs. The Educator Workforce Academy fostered collaboration between K-12 educators and local employers. Educators gained insights through site visits and ultimately advocated for a more streamlined employer engagement system with K-12. The Hickey Global Workforce Analysis highlighted Lynchburg's strengths in nuclear technology and identified workforce challenges, such as the need for digital talent. Recommendations included launching a career portal, expanding upskilling programs, and enhancing K-12 career awareness.

Manufacturing for Transportation, Energy & Autonomy Growth Strategies and Activities

The following activities and project ideas were collected through discussions with industry partners and at workshops. They reflect GOVA Region 2 priorities. **Applicants should align their proposals with these priorities and build on past and current projects,** listed in Appendix A. GO Virginia believes in collaboration and regional alignment as drivers of community growth and prosperity. Applicants are urged to coordinate their projects accordingly.

Prioritized Activities and Projects	Investment Area(s)
Expand GOTEC, CTE Academy, CTE Coaching, Summer Work Experiences, Worlds of Opportunity Career Expo, Industry Insight Tours for educators, Business Success Symposium and other pipeline programs that connect students with industry	Talent
Support manufacturers in adopting new technologies and processes to cut costs and become globally competitive. E.g. automation, digital twinning, additive manufacturing, advanced materials, continuous improvement, etc.	Scale-Up
Identify more developable sites and conduct more site readiness planning, grading, and development	Infrastructure
Develop more paid internships, work-based learning, mentoring and apprenticeship opportunities. This includes the state apprenticeship program that allows for workers under 18	Talent
Come home campaign and virtual support systems for connecting students from the region but studying elsewhere with paid internships	Talent
Develop a plan and scale-up nuclear and energy cluster through sector-specific training, more cluster business-ready sites, entrepreneur and lab-to-market expertise	Scale-Up
Grow and support talent development of all trade occupations as they serve as feeder programs to manufacturing	Talent
Identify and refurbish underutilized spaces for labs, testing, and scaled-up manufacturing	Infrastructure
Identify/generate more well-advertised funding opportunities (proof of concept, gap funding, angel group funding)	Start-Up
Improve coordination among local, regional, and state economic development to mitigate fatigue	Scale-Up
Encourage more entrepreneur networking through mentorship programs, events, pitches, and entrepreneur of the year awards	Start-Up
*Other identified needs and activities that may not be fundable through GOVA: market region better, more wrap around services and quality of life assets to retain and attract workers	

ADVANCED MATERIALS MANUFACTURING

This cluster involves the design, development, and production of high-performance materials used across multiple industries such as aerospace, automotive, defense, and energy. Chemical, packaging, and other material manufacturers develop and process composites, nanomaterials, lightweight metals, and polymers that enhance product strength, durability, and efficiency.

Sub-Cluster Summary

Multi-Application/Multiple Vertical Materials - Versatile materials for multiple industries.
- **71** Payroll Businesses

Chemical - Specialized chemicals for advanced materials.
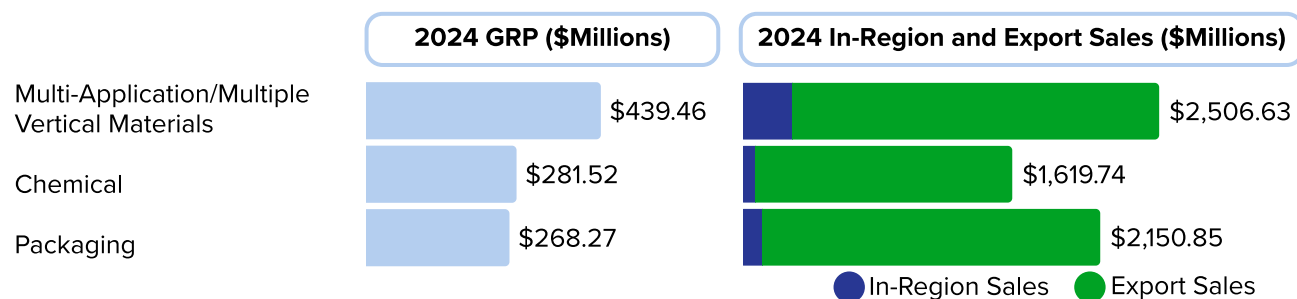- **24** Payroll Businesses

Packaging - Durable, high-performance packaging materials.
- **22** Payroll Businesses

With over 11,000 jobs, Advanced Materials Manufacturing has 3 times the workforce compared to other regions of this size. Since 2015, the cluster has seen 10.9% job growth and 45% growth in gross regional product (GRP). Cluster growth is supported by strong research and workforce assets including Virginia Tech's Macromolecules Innovation Institute, the Institute for Critical Technology and Applied Science (ICTAS), and advanced manufacturing workforce programs like those at New River Community College. Today, these manufacturers search for other industry verticals to diversify their markets, continued innovations in sustainable and affordable materials, additional material quality testing and assurance resources, and process improvements (e.g. for small-batch manufacturing).

2024 GRP ($Millions)

Subcluster	2024 GRP ($Millions)
Multi-Application/Multiple Vertical Materials	$439.46
Chemical	$281.52
Packaging	$268.27

2024 In-Region and Export Sales ($Millions)

Subcluster	Sales ($Millions)
Multi-Application/Multiple Vertical Materials	$2,506.63
Chemical	$1,619.74
Packaging	$2,150.85

● In-Region Sales ● Export Sales

Subcluster	2017 Jobs	2024 Jobs	Job Change 2017-2024	Projected 2030 Jobs	Projected Job Change 2024-2030
Multi-Application/Multiple Vertical Materials	4,517	5,008	11%	5,285	6%
Chemical	1,829	2,558	40%	2,855	12%
Packaging	3,347	2,691	-20%	2,479	-8%

Source: Lightcast, Dataset 2025Q2

Top Ten Materials Manufacturing In-Demand Skilled Occupations

Advanced Materials Manufacturing shares similar workforce needs as Manufacturing for Transportation, Energy & Autonomy, particularly in production and two-year degree occupations. In addition, due to the precise nature of materials and their processing, expertise in chemistry and engineering is vital to the continued growth and innovation of this cluster. While this region has a sufficient number of workers receiving degrees for this type of work, the challenge is retaining prospective and existing workers and attracting experienced workers to the region. Below are the cluster's top "skilled" occupations with higher wages.

🟩 High School to 2 Year Degree   🟦 Bachelor's Degree   🟦 Graduate Degree(s)

	Occupation	2025 Jobs in Region	Job Change 2015-2025	Average Annual Openings	Position Titles
🟩	Heavy and Tractor-Trailer Truck Drivers	6,098	61%	771	CDL Driver, Line Haul Driver, Over-the-Road (OTR) Driver, Delivery Truck Driver
🟦	General and Operations Managers	6,739	42%	701	Operations Manager, General Manager, Plant Manager, Business Manager
🟦	Project Management Specialists	2,071	316%	228	Program Manager, Project Coordinator, Implementation Specialist
🟦	Industrial Engineers	1,227	64%	114	Process Engineer, Quality Engineer, Manufacturing Engineer
🟦	Mechanical Engineers	756	11%	66	Design Engineer, Product Engineer, Mechanical Design Engineer
🟩	Industrial Engineering Technologists	338	23%	53	Engineering Technician, Industrial Technician, Quality Technician
🟦	Industrial Production Managers	521	23%	53	Production Manager, Manufacturing Supervisor, Plant Supervisor
🟩	Chemical Technicians	163	121%	28	Lab Technician, Quality Control Technician, Process Technician
🟦	Chemists	143	92%	23	Research Chemist, Analytical Chemist, Quality Chemist
🟦	Chemical Engineers	43	1%	9	Process Engineer, Production Engineer, Chemical Engineer

Advanced Skills
- ISO 9000 Series
- Lean Six Sigma
- Kaizen Methodology
- Dry Van Truck Operation
- SolidWorks, AutoCAD
- Tanker & Hazmat Endorsement

Needed Skills
- Project Management
- Continuous Process Improvement
- Mechanical Engineering
- Lean Manufacturing
- Automation
- CDL Class A & B

Core Competencies
- Communication
- Management/Leadership
- Operations
- Customer Service
- Problem Solving
- Microsoft Office

Source: Lightcast Dataset 2025Q2

Advanced Material Manufacturing Cluster Assets

Existing Programs

- Community colleges and universities
- Additive Materials Manufacturing Partnership Labs (AMPL)
- Center for Engineering Research and Education (CERE) Industry Labs
- Center for Intelligent Material Systems and Structures (CIMSS)
- Center for Packaging and Unit Load Design (CPULD)

- Institute for Critical Technology and Applied Science
- Kroehling Advanced Materials Foundry (VT FIRE)
- Onward NRV Manufacturing Leadership Summit (twice a year)
- Regional Accelerator & Mentoring Program (under RBIA)
- Virginia Tech's Macromolecules Innovation Institute
- XLR8 STEM Academy

Active Players In Ecosystem Building

- Local economic developers and workforce boards
- Virginia's Additive Materials and Advanced Manufacturing Tech Hub
- Lynchburg Regional Business Alliance
- Onward New River Valley
- Roanoke-Blacksburg Innovation Alliance (formerly VERGE)
- Roanoke-Blacksburg Technology Council (RBTC)

- Regional Entrepreneurship Initiative
- Roanoke Regional Partnership
- The Advancement Foundation
- VA Small Business Development Center (Greater Roanoke & NRV and Lynchburg offices)
- Virginia Economic Development Partnership
- VTOP, Veteran Support Network, and other support organizations

GOVA Project Spotlight

Additive Manufacturing Partnership Labs (AMPL) (2019-2022)

$274,980 in GOVA funding

AMPL was a collaborative effort between Liberty University (LU), the Center for Engineering Research and Education (CERE), Central Virginia Community College (CVCC), the XLR8 STEM Academy, local partners BWX Technologies, FarField NDT, and Bedford County. To grow the Additive Manufacturing (AM) base and educate the AM workforce, the project purchased the AM equipment needed to outfit the 2,400 square-foot facility, including several AM systems using a spectrum of materials and a prototyping laboratory for materials characterization and testing. The AMPL has brought industries to the region and supported several new startup firms working out of CERE to develop innovative products. Outcomes of this project included 7 established education partnerships, 34 faculty trained, 46 employees upskilled, over 75 industry site visits during the project period.

New River Valley Materials and Machinery Cluster Scale-up (2023-2025)

$98,859 in GOVA Funding

GOVA funding was used to develop a 10-year Roadmap to grow the manufacturing clusters in Region 2. A consortium of 50+ industry and support organizations regularly convened to identify and prioritize implementation projects that would position the region to be globally competitive in additive manufacturing and advanced materials manufacturing. The consortium supported the opening of five GO TEC labs in the region and will pursue a statewide GOVA grant and federal grant, representing up to $60 million in funding to grow advanced manufacturing.

Advanced Materials Manufacturing Growth Strategies and Activities

The following activities and project ideas were collected through discussions with industry partners and at workshops. They reflect GOVA Region 2 priorities. **Applicants should align their proposals with these priorities and build on past and current projects,** listed in Appendix A. GO Virginia believes in collaboration and regional alignment as drivers of community growth and prosperity. Applicants are urged to coordinate their projects accordingly.

Prioritized Activities and Projects	Investment Area(s)
Expand GOTEC, CTE Academy, CTE Coaching, Summer Work Experiences, Worlds of Opportunity Career Expo, Industry Insight Tours for educators, Business Success Symposium and other pipeline programs that connect students with industry	Talent
Identify more developable sites and conduct more site readiness planning, grading, and development	Infrastructure
Develop more paid internships, work-based learning, mentoring and apprenticeship opportunities. This includes the state apprenticeship program that allows for workers under 18	Talent
Come home campaign and systems for connecting students from the region but studying elsewhere with paid internships	Talent
Support adoption of AI, automation, 3D printing, advanced materials, digital twins, etc.	Scale-Up
Grow and support talent development of all trade occupations as they serve as feeder programs to manufacturing	Talent
Identify and refurbish underutilized spaces for labs, testing, and scaled-up manufacturing	Infrastructure
Identify/generate more well-advertised funding opportunities (proof of concept, gap funding, angel group funding)	Start-Up
Improve coordination among local, regional, and state economic development to mitigate fatigue	Scale-Up
Encourage more entrepreneur networking through mentorship programs, events, pitches, and entrepreneur of the year awards	Start-Up
Create an additive manufacturing and materials maker space	Infrastructure

*Other identified needs and activities that may not be fundable through GOVA: market region better, more wrap around services and quality of life assets to retain and attract workers

IT, ENGINEERING SERVICES, & EMERGING TECHNOLOGY

Businesses in this cluster design and develop machines, materials, instruments, structures, processes, and/or systems to enable other businesses to improve performance and stay competitive. Knowledge services include software engineering, cloud computing, AI, cybersecurity, and data analytics. Architectural and engineering services promote innovative infrastructure across industries. Other consulting services create solutions to enhance productivity and data-driven decision-making.

Sub-Cluster Summary

IT and Cyber Security - Securing, managing, and optimizing digital systems and sensitive data to ensure reliable and protected technology operations.
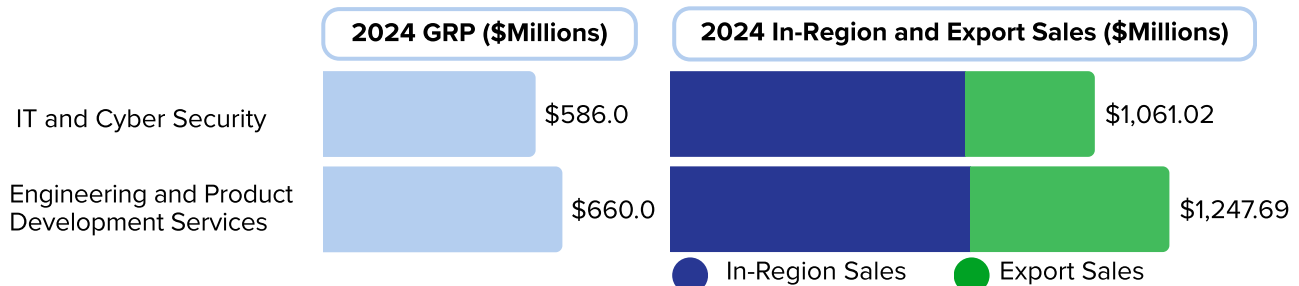- **617** Payroll Businesses

Engineering and Product Development Services - Designing, developing, and implementing technology solutions and systems that drive innovation and support complex digital infrastructure needs.
- **434** Payroll Businesses

The IT, Engineering Services, and Emerging Technology cluster employs over 9,000 workers. However, significantly more knowledge-worker jobs represented in this cluster serve all regional industries. Historically, cluster businesses have developed innovative technologies that have supported manufacturers, healthcare systems, and other industries. As such, supporting the growth of this cluster fosters greater regional innovation and expansion of all Region 2 target clusters. From 2019 to 2024, the region experienced strong job growth in areas such as software development, data analytics, and cloud services, with continued expansion projected through 2030—especially in artificial intelligence, cybersecurity, and systems engineering. With the growth of AI, some stakeholders have notes the possible effects on job demand, such as having less need for coders.

2024 GRP ($Millions)

IT and Cyber Security	$586.0
Engineering and Product Development Services	$660.0

2024 In-Region and Export Sales ($Millions)

IT and Cyber Security	$1,061.02
Engineering and Product Development Services	$1,247.69

In-Region Sales   Export Sales

Subcluster	2017 Jobs	2024 Jobs	Job Change 2017-2024	Projected 2030 Jobs	Projected Job Change 2024-2030
IT & Cybersecurity	4,641	4.443	-4%	4,595	3%
Engineering and Product Development Services	4,426	4,655	5%	4,667	0%

Source: Lightcast Dataset 2025Q2

Top 10 IT, Engineering Services, & Emerging Technology In-Demand Skilled Occupations

Workforce needs include IT specialists, data analysts and engineers, and management occupations. In theory, the cluster has access to enough graduates from regional community college and university programs. However, talent often leaves the region upon graduation. Retaining and attracting more experienced talent to the region is another challenge. When asked why retaining and attracting workers is difficult, stakeholders cited lagging regional wages and outdated hiring practices among regional employers. Cluster employers are looking for talent skilled in problem solving, critical thinking, customer engagement, and teamwork.

Legend: High School to 2 Year Degree | Bachelor's Degree | Graduate(s) Degree

	Occupation	2025 Jobs in Region	Job Change 2015-2025	Average Annual Openings	Position Titles
■	Software Developers	901	17%	206	Front-End Developer, Back-End Developer, Full Stack Developer
■	Civil Engineers	420	28%	83	Structural Engineer, Transportation Engineer, Water Resources Engineer
■	General and Operations Managers	364	43%	897	Operations Director, Business Manager, Plant Manager
■	Sales Reps of Services	320	19%	229	Account Executive, Business Development Representative, Client Solutions Specialist
■	Project Management Specialists	313	51%	267	Project Coordinator, Agile Project Manager, Program Manager
■	Computer User Support Specialists	298	(29%)	118	Help Desk Technician, IT Support Specialist, Technical Support Analyst
■	Computer Systems Analysts	277	(12%)	95	Business Systems Analyst, IT Systems Analyst, Application Analyst
■	Market Research Analysts and Marketing Specialists	240	28%	192	Consumer Insights Analyst, Marketing Strategist, Brand Analyst
■	Management Analysts	217	31%	169	Business Consultant, Organizational Effectiveness Analyst, Strategy Analyst
■	Computer and Information Systems Manager	209	28%	81	IT Director, Chief Information Officer (CIO), Technology Manager

Specialized Skills
- Field Service Management
- IT Security
- Technical Support
- Computer Science

Core Competencies
- Problem Solving
- Communication
- Planning
- Sales

Software Skills
- GitHub
- C++
- Linux
- Python

Top Credentials
- NIST Cybersecurity
- CompTIA Network
- CompTIA Security
- Engineer License

Source: Lightcast Dataset 2025Q2

IT, Engineering Services, & Emerging Technology Cluster Assets

Existing Programs

- Additive Materials Manufacturing Partnership Labs (AMPL)
- Center for Engineering Research and Education (CERE) Industry Labs
- Center for Intelligent Material Systems and Structures (CIMSS)
- Center for Packaging and Unit Load Design (CPULD)
- Commonwealth Cyber Initiative SWVA
- Community colleges and universities
- CS/ROOT (supporting computer science entrepreneurs)
- Exelaration
- GMU Mason Enterprise
- Regional Accelerator & Mentoring Program (under RBIA)
- Kroehling Advanced Materials Foundry (VT FIRE)
- XLR8 STEM Academy

Active Players In Ecosystem Building

- Local economic developers and workforce boards
- APEX Center for Entrepreneurship
- Advancement Foundation
- Blacks in Technology SWVA
- Lynchburg Regional Business Alliance
- Onward New River Valley
- Roanoke-Blacksburg Innovation Alliance (formerly VERGE)
- Roanoke-Blacksburg Technology Council (RBTC)
- Regional Entrepreneurship Initiative
- Roanoke Regional Partnership
- Virginia Business Ready Sites Program (VBRSP)
- Virginia Economic Development Partnership
- VA Small Business Development Center (Greater Roanoke & NRV and Lynchburg offices)
- Virginia Tech Corporate Research Center
- V-TOP, Veteran Support Network, and other support organizations

GOVA Project Spotlight

Artificial Intelligence Statewide Landscape Assessment (ASLA) (2025 - 2026)
GOVA funding: $100,000

This statewide competitive project between GOVA Regions 2 and 3 aims to explore how artificial intelligence (AI) will transform Virginia's business landscape and workforce. As part of the Chamber's Blueprint Virginia 2035 update, this initiative focuses on sustaining a resilient and industry-responsive talent pipeline. The consultant will conduct interviews and surveys to glean insights from business leaders, workforce development leaders, and local chamber representatives. The project will analyze current and future AI applications, standardize essential terminology and concepts, identify prevailing trends, report sector-specific impacts, assess the current workforce development catalog, and provide strategic recommendations for future GO Virginia initiatives focused on AI.

Photo from Canva

IT, Engineering Services, & Emerging Technology Growth Strategies and Activities

The following activities and project ideas were collected through discussions with industry partners and at workshops. They reflect GOVA Region 2 priorities. **Applicants should align their proposals with these priorities and build on past and current projects,** listed in Appendix A. GO Virginia believes in collaboration and regional alignment as drivers of community growth and prosperity. Applicants are urged to coordinate their projects accordingly.

Prioritized Activities and Projects	Investment Area(s)
Support infrastructure and talent development in AI, robotics, autonomy, and quantum computing	Scale-Up and Talent
Increase awareness and informed use of AI along talent pipeline	Talent
Better connect regional employers with students through job fairs and internships and improve/streamline hiring processes	Talent
Improve technology transfer processes and catalyze technology adoption and development (e.g. AI, machine learning, augmented and virtual realities, cobots, data sciences and analytics, and existing catalogued university IP in the region).	Start-Up and Scale-Up
Implement more talent retention and attraction strategies e.g. develop clear career pathways from entry through senior level employment to illustrate a lifetime of career opportunities; showcase and promote top IT talent in the region to attract and retain more talent .	Talent
Encourage and incentivize higher education institutions to allow funding for student start-ups that can lead to experience and new companies in Region 2	Start-Up
Expand RBTC Talent coalition to include more Region 2 partners committed to advancing and sharing events and talent needs	Scale-Up and Talent
Develop and implement more mid-career upskilling programs in response to aging workforce	Talent
Strategize and implement ways of attracting private and alternative funding for research and start-up growth	Start-Up and Scale-Up
*Other identified needs and activities that may not be fundable through GOVA: improve regional marketing, expand Roanoke Regional Airport, more affordable and accessible child care workers, more affordable workforce housing, improve quality of life such as public transportation infrastructure, create regional funds for liquitiy events	

APPLY FOR GO VIRGINIA FUNDING

4 key elements of a GOVA Proposal:

1. Work must support one or more Industry Clusters:

- Advanced Materials Manufacturing
- IT, Engineering Services, and Emerging Technology
- Life Sciences & Biotechnology
- Manufacturing for Transportation, Energy, & Autonomy

2. Work must fall within one or more of the following Investment Strategies:

- Workforce Development
- Site Development & Infrastructure
- Startup Ecosystem
- Cluster Scale-up

Project Requirements

- ➤ Alignment with Region 2 G&D plan goals
- ➤ Illustrate industry demand & support
- ➤ Meaningful participation from at least two localities
- ➤ Support target industry clusters
- ➤ 2:1 Match commitment
    - 20% of match from local government*
- ➤ Sustainable after GOVA support
- ➤ Lead to new, high-wage jobs

does not apply to planning grants

3. Proposals must clearly state the type of GOVA grant you are pursuing:

Planning	Implementation	Statewide Competitive
Regionally focused planning projects that lay the groundwork for implementation	Regional collaborations that will build the infrastructure necessary for creation of higher paying jobs	Multiregional collaborations that represent significant statewide economic opportunity
• Funding: up to $100,000 • Duration: 1 year	• Funding: $100,000+ • Duration: 2 years	• Funding: $1,000,000+ • Duration: 2 years

4. Proposals should choose among the following metrics to "measure" their grant outcomes:

Planning grants must demonstrate a line of sight

Workforce Development	Site Development & Infrastructure	Startup Ecosystem	Cluster Scale-up

• People trained
• Job placements
• Businesses served
• Interns placed
• Apprenticeships created
• New programs implemented
• New programs implemented
• Students completed a dual enrollment program
• Credentials awarded
	• Acres advanced to higher tier per VBRSP
	• Acres impacted/developed
	• Locality engagement in establishing a RIFA/revenue sharing agreement
	• Linear feet of:
	  ○ sewer infrastructure
	  ○ gas infrastructure
	  ○ water infrastructure
	• Miles of middle mile broadband completed
		• Jobs created
		• Businesses expanded
		• Businesses created
		• Businesses served
		• Mentors providing assistance
		• Funds raised by businesses served
		• New products released to production
		• Patents Filed
		• Patents awarded
			• Jobs created
			• Businesses attracted
			• Businesses expanded
			• Businesses served
			• Funds raised by businesses served

APPLY FOR GO VIRGINIA FUNDING

How Do I Apply?
Start Here →

1

Is it a GOVA project?
☑ Aligns with the Region 2 G&D Plan
☑ Supports one or more Industry Clusters
☑ Promotes one more Investment Strategies

2

Submit your expression of interest!
Submit the GOVA Region 2 Expression of Interest form with the information you have now.
It's okay if you can't answer every question yet!

Expression of Interest Form

3

Meet with Region 2 staff
Following your expression of interest submission, a staff member will reach out to schedule a meeting to discuss your project and help you shape your proposal

FAQs

Who can apply?
Nonprofits, local government entities, organizations working on behalf of local government entities, colleges, and universities are eligible to apply for GOVA funding

When is the deadline to apply?
Applications can be submitted at any time! Check the Region 2 calendar for the deadline to submit an application for the next quarterly Region 2 Council meeting

What makes a strong GOVA proposal?
Collaboration, Industry Demand and Support, Alignment with GOVA G&D Plan

Applicant Resources

GO Virginia Program Manual - For important information about eligibility, policies, program requirements, and structure

Region 2 Growth & Diversification Plan - For regional goals, prioritized activities & strategies, and contacts for collaboration

Region 2 Talent Pathways Initiative Report - For **workforce development projects** targeting Life Sciences & Biotechnology or Manufacturing for Transportation, Energy & Autonomy sectors

DHCD Website - For current application templates and program guidance

GOVA Region 2 Website - To learn about projects we have funded, upcoming application deadlines & events, and links to these and helpful resources & more for applicants

Contact Us
Email Jemma Sabokrouh
jemma@vt.edu

Visit the GO Virginia Region 2 website to learn about projects we have funded & our impact!

GO VIRGINIA
REGION 2
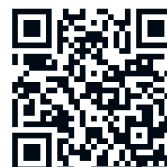
2025
APPENDIX A:
FUNDED PROJECTS

Grants Funded in GOVA Region 2

Project Strategy Areas Key:

Cluster Scale-Up	Workforce Development	Start-up Ecosystem	Site Development & Infrastructure

Target Industry Served Key:

L = Life Science & Biotechnology	A = Advanced Material Manufacturing	I = IT, Engineering Services, & Emerging Technology	M = Manufacturing for Transportation, Energy, & Autonomous Systems

Chronological by start date

Project Name (Years Active) *Subgrantee*	Project Description	Target Industries
Stopping the Brain Drain Strategy Development (2018-2020) *Roanoke Regional Partnership*	The Stopping the Brain Drain Study developed a talent attraction and retention plan aimed at reducing the outmigration of recent graduates from the region's 25 colleges and universities. GO Virginia funds identified the challenges faced by the region through surveys, focus groups, and interviews. This information helped to create an action plan for recruiting and retaining talent. (Subgrantees received funds to implement strategies.)	All
Capital Ecosystem Development (2018-2020) *Valley Innovation Council (now RBIA)*	The Capital Ecosystem Development Plan conducted a two-year strategic planning process to assess weaknesses in the capital landscape that had inhibited entrepreneurship and the commercialization of regional research. Valley's Innovation Council used this information to establish a capital pathways plan to cultivate sources of startup capital for high-growth companies, complete with proposals for new and expanded programming and capital resources.	All
Center for Energy Research and Education (CERE) (2018-2020) *Liberty University*	The CERE Industry Labs designed, constructed, and equipped facilities at the former Center for Advanced Engineering & Research (CAER) location in Bedford County. These labs provide regional companies and institutions of higher education with the necessary resources to promote research and development. Additionally, they aimed to attract and retain a skilled scientific and engineering workforce.	A, M
Wood Haven Road Water and Sewer Infrastructure Enhancement (2018-2020) *Western Virginia Regional Industrial Facility Authority*	The Wood Haven Water & Sewer project improved site readiness at Routes 81 and 581 by extending water and sewer utilities and developing two industrial pads—52 acres for major operations and 20 acres for smaller enterprises. This investment strengthened infrastructure, boosted marketability, and positioned the area to attract businesses, drive economic growth, and support job creation.	A
Regional Acceleration and Mentorship Program (RAMP) Expansion (2018-2020) *Roanoke-Blacksburg Innovation Alliance*	The RAMP Expansion significantly enhanced the program's impact in downtown Roanoke. RAMP offers technology-focused startups invaluable resources, including hands-on classroom education, personalized mentorship, and expert guidance in identifying and securing funding opportunities. With the support of GO Virginia funds, the program broadened its offerings to accommodate a second cohort, further fostering innovation and entrepreneurship within the community.	L, I
Enhancing the Region through New Technology for Unmanned Systems (2018-2020) *Mountain Gateway Community College (MGCC)*	The Enhancing the Region through New Technology for Unmanned Systems initiative introduced a training program focused on drone technology. The program leveraged the Alleghany Highlands Drone Zone Initiative and the development of an unmanned systems facility in the area. The project advanced education, built partnerships, and positioned MGCC as a continuing resource for future workforce needs.	M
Region 2 Talent Collaborative (2018-2020) *Central VA, New River/Mt. Rogers, Blue Ridge Workforce Development Boards*	The Region 2 Talent Collaborative aimed to bridge the skills and interest gaps in middle- to high-skill occupations within manufacturing, healthcare, and information technology. Region 2 launched a campaign to raise awareness and generate interest in these industries. Additionally, they established a training program for current workers to help them acquire the skills necessary for higher-skilled job openings.	All

Grants Funded in GOVA Region 2

Project Strategy Areas Key:

Cluster Scale-Up	Workforce Development	Start-up Ecosystem	Site Development & Infrastructure

Target Industry Served Key:

L = Life Science & Biotechnology	A = Advanced Material Manufacturing	I = IT, Engineering Services, & Emerging Technology	M = Manufacturing for Transportation, Energy, & Autonomous Systems

Chronological by start date

Project Name (Years Active) *Subgrantee*	Project Description	Target Industries
Roanoke Regional Small Business Development Center (SBDC) (2019-2020) *Roanoke Regional Chamber*	The Roanoke Regional SBDC provided small business counseling, training, and business resources to the New River Valley (NRV) region and delivered new programs and services tailored to the specific needs of NRV small businesses. This project provided the resources to dedicate a full-time Business Advisor to serve the New River Valley exclusively, supporting NRV businesses and rebuilding the relationships between NRV communities and the SBDC network.	All
Additive Manufacturing Partnerships Labs (AMPL) (2019-2021) *Liberty University*	Center for Energy Research & Education (CERE) Industry Labs developed the Additive Manufacturing Partnership Lab (AMPL) at the established CERE facility in Bedford County. Liberty utilizes AMPL to train students and manufacturing employees in the region on the newest technology-based processes, such as 3D printing and robotics.	A. M
Increasing the Birth Rates of New High Growth Companies for Region 2 Phase I & II (2019-2020, 2020-2021) *The Advancement Foundation*	The Innovation Mill piloted six strategies to strengthen Region 2's entrepreneurial ecosystem, including recruiting startups, conducting evaluations, refining business models, engaging higher education, and linking to support and funding. Building on this, TAF identified and supported potential high-growth firms by providing backbone services to scale startups and enhance regional entrepreneurship.	A, I, M
Ignite Internship Expansion (2019-2021) *United Way South West VA*	Ignite built on a previously awarded project in Region 1 to include the creation of a web-based platform to deliver activities encourages post-secondary education and streamline workforce credentialing, provide work-based learning opportunities, and match new graduates with local employers. UWSWVA expanded these efforts into Giles and Pulaski Counties and the City of Radford.	All
Lynchburg Due Diligence (2019-2020) *Lynchburg Regional Business Alliance*	To support moving a portfolio of six existing commercial/industrial sites to at least Tier 3 according to the Virginia Business Ready Sites Program (VBRSP), funding went toward consultant services completing required due diligence.	All
Regional Career and Technical Education Study (2019-2020) *Greater Roanoke WDB*	The study evaluated career and technical education programs in the Roanoke Valley Alleghany Highlands footprint to determine how well they prepared students for in-demand fields such as healthcare, IT, manufacturing, and construction. The final report provided actionable guidance to strengthen talent pipelines and align programs with workforce needs.	All
Blockchain Ecosystem Catalyst (2019-2022) *VT Department of Computer Science*	The project addressed talent needs for mid-career professionals by offering seminars, short courses, and training events that led to blockchain certifications. The project developed curriculum and courseware for Virginia Tech students, created an industry-focused blockchain resource portal to support startups and companies implementing the technology, and sponsored industry seminars to demonstrate blockchain applications across multiple fields.	I
Developing a Destination for Talent (2019-2022) *VT Office for Learning Systems Innovation and Effectiveness (LSIE)*	This project strengthened connections with companies that previously lacked close relationships with Virginia Tech. Key achievements included introducing local employers to the internship model, helping them establish recruitment timelines that allowed them to compete with larger companies inside and outside Virginia, and guiding them on how to convert interns into full-time employees.	I

Grants Funded in GOVA Region 2

Project Strategy Areas Key:

Cluster Scale-Up	Workforce Development	Start-up Ecosystem	Site Development & Infrastructure	Emergency Response

Target Industry Served Key:

Life Science & Biotechnology = L	Advanced Material Manufacturing = A	IT, Engineering Services, & Emerging Technology = I	Manufacturing for Transportation, Energy, & Autonomous Systems = M

Chronological by start date

Project Name (Years Active) Subgrantee	Project Description	Target Industries
Region 2 Entrepreneurship Initiative *Valley Innovation Council (now RBIA)*	A collective effort produced the Region 2 Innovation and Entrepreneurial Investment Plan, a strategic framework to foster innovation and support entrepreneurs. As part of the initiative, Virginia Innovation Council mapped regional assets, including businesses, education institutions, and community organizations, and identified resources to strengthen the entrepreneurial ecosystem. The Council also developed strategies to attract funding, mentorship, and networking opportunities, ensuring local startups had access to critical support for growth.	All
Central Virginia Training Center Redevelopment (2020-2021) *Lynchburg Regional Business Alliance*	The CVTC Redevelopment Plan established a comprehensive master plan for the former 350-acre Central Virginia Training Center site in Amherst County. The plan included data collection and analysis, public engagement, workshops, infrastructure assessment, and market evaluation. Findings were submitted to the Amherst Board of Supervisors for consideration in the County's comprehensive plan and approval of an overlay zoning district.	L, I, A
Pivot & RAMP Up (2020-2021) *Roanoke-Blacksburg Technology Council*	The Pivot and RAMP UP provided RAMP with the necessary resources to transition all operations to a fully virtual format while maintaining the quality of program delivery and services. This support enabled the organization to implement an appropriate virtual platform and engagement tools for cohorts and alumni, adapt course content for effective online instruction, and establish a structured program flow that included training for mentors, founders, and other participants.	L, I
VT Workforce Training & Regional Capacity for Covid-19 Testing Phase I & II (2020-2020, 2020-2021) *VT Carilion*	The Rapid High-Throughput COVID-19 Testing and Workforce Training initiative established two Fralin laboratories in Blacksburg and Roanoke, validating testing methods and processing thousands of COVID-19 tests to provide timely results. Phase I launched facilities, staffed Medical Laboratory Specialists and Technicians and interns, and secured essential supplies. Phase II expanded testing volume and created an internship-to-employment pipeline, training dozens of students to support healthcare careers. Together, these efforts strengthened Southwest Virginia's pandemic response and long-term workforce capacity.	All
New River Valley Business Continuity Team (BCT) Phase I & II (2020-2021, 2020-2022) *New River Valley Regional Commission*	The NRV BCT provided 24/7 technical assistance to employers during COVID-19. Services included certification in safe reopening practices, facility cleaning, public relations, and coordination of on-site testing. Through partnerships with NRVRC, Chambers of Commerce, Onward NRV, and the New River Health District, the BCT helped businesses protect employees, restore customer confidence, and navigate evolving health guidelines.	All
Roanoke Regional Recovery (2020-2022) *Roanoke Regional Partnership*	The project aimed to assess the pandemic's impact on the regional business community and develop responsive strategies. The Roanoke Recovery initiative strengthened employer engagement, aligned skill development with workforce needs, created post-graduation employment opportunities, and promoted hiring in high-demand occupations during COVID-19 recovery.	All
Public Health Readiness Evaluation (PHRE) Mobile App (2020-2021) *Virginia Tech's Institute for Critical Technology and Applied Science (ICTAS)*	Small businesses and civic organizations often lacked the staff, resources, and expertise to keep up with changing public health guidance during the COVID-19 pandemic. ICTAS developed a mobile app-based PHRE tool to help organizations assess and improve their operational safety.	All

Grants Funded in GOVA Region 2

Project Strategy Areas Key:

Cluster Scale-Up	Workforce Development	Start-up Ecosystem	Site Development & Infrastructure

Target Industry Served Key:

L = Life Science & Biotechnology	A = Advanced Material Manufacturing	I = IT, Engineering Services, & Emerging Technology	M = Manufacturing for Transportation, Energy, & Autonomous Systems

Chronological by start date

Project Name (Years Active) *Subgrantee*	Project Description	Target Industries
Experiment Learning in Tech Employment (ELITE) Internship Program (2020-2022) *Roanoke-Blacksburg Technology Council*	The program tackled key challenges identified in the 2019 "Stopping the Brain Drain" study: employers seeking more experienced talent, universities wanting quality paid internships, and misconceptions about limited regional opportunities . ELITE achieved this by building relationships with higher education institutions, employers, and professional internship organizations, managing internships and providing student training and professional development, and offering direct financial support for intern wages and mentor oversight.	L, I
Classrooms to Careers (2021-2022) *Montgomery County Public Schools*	The grant funding aimed to engage high school students in the New River Valley, where competing with college students for internships and entry-level jobs was difficult. IT careers and talent retention were priorities for the region at the time.	I
Amherst LYH Site Readiness (2021-2022) *Lynchburg Regional Business Alliance*	The Amherst LYH Site Readiness Project was a strategic initiative to enhance two key locations: one in Amherst County and another in the Town of Amherst. The project sought to advance both sites on the Virginia Business Readiness Scale, which measures preparedness for business development and investment.	All
Lab Space Assessment (2021-2022) *VT Corporate Research Center*	The project asessed the demand and projected growth in need for lab space in Region 2 and address the region's needs for capabilities and capacity to recruit and retain companies and prevent erosion of young talent in the life science sector. The deliverable for the project was an analysis to determine the need for a multi-tenant laboratory facility (MTLF) to support emerging technology development and to provide guidance for implementation of these facilities in the region.	L
CVCC CTE Academy (2021-2023) *Central Virginia Community College*	CVCC identified 26 existing programs to align under the CTE Academy framework and developed four additional credential and certificate programs. Academy programming emphasized the region's targeted sectors: manufacturing, healthcare, information technology, and food/beverage automation. The skills-based training enabled students to pursue stackable credentials, certifications, and higher-paying jobs. Dual enrollment options linked existing CVCC programs with the region's five public school divisions, covering 10 high schools.	All
Helping Local Employers Prepare the Existing and Future Workforce for Industry 4.0 (2021-2022) *VT Roanoke Center*	The initiative focused on meeting the growing need for specialized skills in advanced manufacturing. Training efforts emphasized competencies such as robotics and data analytics, equipping both the current and future workforce with tools to succeed in the evolving industrial landscape. By fostering collaboration between education providers and industry leaders, the initiative strengthened Region 2's manufacturing sector and supported long-term competitiveness and sustainability.	A, M
Future Centers Expansion (2021-2022) *Lynchburg Beacon of Hope*	Lynchburg Beacon of Hope expanded the Future Centers model to Amherst County High School, Alta Vista Combined Schools and Lynchburg City schools, while also developing a playbook for replication. The model increased experiential learning opportunities for high school students and encouraged more students to pursue training, certificates, and degrees in high-demand fields.	All

Grants Funded in GOVA Region 2

Project Strategy Areas Key:

Cluster Scale-Up	Workforce Development	Start-up Ecosystem	Site Development & Infrastructure

Target Industry Served Key:

L = Life Science & Biotechnology	A = Advanced Material Manufacturing	I = IT, Engineering Services, & Emerging Technology	M = Manufacturing for Transportation, Energy, & Autonomous Systems

Chronological by start date

Project Name (Years Active) *Subgrantee*	Project Description	Target Industries
Building a Regional Health & Life Sciences Talent Pipeline (2021-2022) *Carilion Clinic*	The Blue Ridge Partnership for Health Science Careers used this planning grant to address regional workforce shortages, support the growing Health and Life Sciences sector, and strengthen the region's appeal to employers. Its success evolved into the Virginia Partnership for Health Science Careers, a statewide initiative coordinating healthcare workforce development across the Commonwealth.	L
Project Eagle+ (2021-2023) *VT Corporate Research Center*	Project Eagle created advanced lab space designed for the needs of emerging startups and established biotech firms. The facility provided essential resources and flexibility to support innovation, collaboration, and research. By fostering an environment conducive to biotech R&D, the project advanced regional competitiveness in biotechnology.	L
Workforce and Entrepreneurship Initiatives in a Regional Makerspace (2022-2024) *Vector Space*	Vector Space expanded workforce and entrepreneurship programming and equipment access for underserved populations. The makerspace provided advanced tools, mentorship, and training programs to help participants gain in-demand workforce skills or launch businesses. The initiative addressed skills gaps while driving local innovation and economic growth.	M
Regional Talent Strategy Implementation (2022-2024) *Greater Roanoke WDB*	The Regional Talent Strategy project developed a coordinated strategy for the Roanoke Valley and Alleghany Highlands in partnership with the Roanoke Regional Partnership. Efforts focused on career awareness, talent development, attraction and retention, and fostering collaboration and leadership to strengthen the regional workforce pipeline.	All
cs/Root (2023-2025) *VT Department of Computer Science*	This program established a computer science-focused entrepreneurial hub for pre-launch and new founders in highly specialized areas such as cybersecurity, blockchain, cloud and quantum computing, artificial intelligence, and systems integration.	I
Expanding Welding Training Capacity & Jobs in the Roanoke Valley (2023-2025) *Botetourt County EDA*	This project increased capacity at the Botetourt Technical Education Center through the installation of 10 new welding booths. The program trained 45 additional welders. This expansion increased both high school and adult enrollment and doubled hands-on training capacity, helping reduce the regional shortage of skilled welders.	A, I, M
Industry 4.0 for the Automated- Connected-Electrified (ACE) Workforce (2023-2025) *VT College of Engineering*	The Industry 4.0 ACE project advances regional manufacturing innovation through a train-the-trainer model, redesigned to increase ROI and engagement. Module 1, covers Industry 4.0 fundamentals, change management, and lean process improvement, paired with hands-on plant tours. Based on industry feedback, Module 3 is being revised to emphasize LEAN practices and tailored technology adoption, supported by GENEDGE and ToolingU resources.	A, I, M
Center of Entrepreneurship (2023-2026) *Lynchburg Regional Business Alliance*	The Center of Entrepreneurship (C.Entr) increases the number of growth-oriented startups by creating an entrepreneurial center of excellence for the Greater Lynchburg region that will serve as an anchor and catalyst for the region's entrepreneurial ecosystem. C.Entr provides new and serial entrepreneurs with access to capital and resources to help take their products to market. This initiative provides dedicated physical space at LRBA to support entrepreneurs.	All

Grants Funded in GOVA Region 2

Project Strategy Areas Key:

Cluster Scale-Up	Workforce Development	Start-up Ecosystem	Site Development & Infrastructure

Target Industry Served Key:

L = Life Science & Biotechnology	A = Advanced Material Manufacturing	I = IT, Engineering Services, & Emerging Technology	M = Manufacturing for Transportation, Energy, & Autonomous Systems

Chronological by start date

Project Name (Years Active) *Subgrantee*	Project Description	Target Industries
Airport Commerce Park (2023-2024) *City of Lynchburg EDA*	Airport Commerce Park advanced 82 acres within a 260-acre site at Lynchburg Regional Airport from Tier 2 to Tier 3 on the Virginia Business Ready Site Program scale. In collaboration, the City of Lynchburg and Campbell County improved site readiness to position the park for future industrial development and attract new business investment.	All
Falling Branch Corporate Park Phase II (2023-2026) *Montgomery County EDA*	The site development project advances a 35-acre site in Montgomery County from Tier 4 to Tier 5 in the Virginia Business Ready Site Program. Building on prior pad development, the effort includes grading and utility installation to prepare the site for future investment. This project aims to reduce uncertainty and accelerate construction timelines for new prospects.	All
Bedford Metal Workforce Retention Center (2023-2025) Town of Bedford EDA	A master plan was developed for a 60,000-square-foot former foundry to guide programming and operations for the proposed "Regional Metal Workforce Retention Center." Designed for metal fabrication activities such as welding, forging, machining, and stamping, the facility would support CVCC's CTE Program expansion and establish a public-private business model to encourage corporate participation in regional workforce development.	A, M
Lynchburg Career Accelerator (2023-2026) *Lynchburg Beacon of Hope*	The Lynchburg Career Acceleration Program builds a skilled pipeline to meet high-demand industry needs by accelerating training, mentorship, career development, and placement for opportunity youth and prime-age workers. Goals include retaining high school graduates, reengaging "pausers" with some training but no credential, connecting two-generation households to living-wage jobs, and establishing long-term career case management so workers continuously build skills and prepare for new opportunities.	All
NRV Materials & Machinery Cluster Scale-Up (2023-2025) *New River Valley Regional Commission*	The New River Valley Commission developed a roadmap that: 1) Built and strengthened the capacity of the Additive Manufacturing and Advanced Materials coalition to grow the manufacturing clusters through regular discussions and planning; 2) mapped regional assets and resources that could support industry scale up; and 3) identified and prioritized unique projects that could support ecosystem growth and transformation of the cluster.	A. M
Region 2 TPI (2023-2025) *VT Center for Economic and Community Engagement*	This project analyzed workforce needs for Life Sciences & Biotechnology and Transportation, Manufacturing, & Autonomy industries through a mix of quantitative and qualitative methods. It included gap analysis, an inventory of current and needed skills, training opportunities, and asset mapping. The result was a set of strategies and high-impact pathway projects to strengthen workforce support for these target industries.	L, M
Strengthening Entrepreneurs' Impact (2023-2026) *Roanoke-Blacksburg Innovation Alliance*	The project supports companies in the technology and biotechnology sectors to grow and scale through the following activities: 1) Launching OnRAMP, a pre-accelerator program to improve barriers to entry for early-stage startup companies, 2) Enhancing the Exit RAMP program, and 3) Enhancing the I&E report by collecting data on early-stage startups.	L, I
Manufacturing Workforce Strategy Development for the Lynchburg Region (2024-2025) *Lynchburg Regional Business Alliance*	The Lynchburg Regional Business Alliance convened stakeholder workgroups and contracted with a third party to develop a workforce pipeline development strategy to address the workforce needs of manufacturers in the Greater Lynchburg area.	A, M

Grants Funded in GOVA Region 2

Project Strategy Areas Key:

Cluster Scale-Up	Workforce Development	Start-up Ecosystem	Site Development & Infrastructure

Target Industry Served Key:

L = Life Science & Biotechnology	A = Advanced Material Manufacturing	I = IT, Engineering Services, & Emerging Technology	M = Manufacturing for Transportation, Energy, & Autonomous Systems

Chronological by start date

Project Name (Years Active) *Subgrantee*	Project Description	Target Industries
ACA Classical & CTE Institute (2024-2027) *Central Virginia PDC*	Appomattox County, in partnership with Central Virginia Community College (CVCC) is increasing capacity for career and technical education through a new facility for welding training. CVCC plans to offer students the opportunity to receive portable credentials in welding and pipefitting at the facility. The facility will help meet demand for welding courses not currently met through the existing training centers of CVCC.	A, M
Developing IT & Cybersecurity Certification Pipeline to Advance Cluster Growth (2024-2026) *Radford University*	A partnership between Radford University and the Commonwealth Cybersecurity Initiative–Southwest Virginia expands IT and cybersecurity certifications while strengthening collaboration among Virginia Tech, Radford, New River Community College, and regional businesses. A new Pearson VUE testing lab in Radford supports credentialing, and the "Talent Connector Program" links certified students to employers through internships and career fairs, building a stronger regional workforce.	I
Educating Engineers for the Region 2 Workforce (2024-2026) *Randolph College*	The new mechatronics and robotics engineering program offers dual enrollment through CVCC for local high schools and will require paid internships for students going through the program, once at Randolph. Guided by an employer advisory board, the program ensures industry relevance. It also launches as a FANUC robotics certified program—the only one in Region 2—allowing students to complete Phase Two of FANUC certification.	M
GMP Clean (2024-2025) *Fralin Biomedical Research Institute*	The Fralin Biomedical Research Institute is addressing the need for cleanroom space through planning activities that survey regional and state-wide demand and implement a pilot cleanroom at the Institute. This pilot facility tests and promotes a state-of-the-art modular cleanroom model and is already used by three local startup companies to manufacture biomedicines.	L
Project VITAL (2025-2028) *Roanoke-Blacksburg Innovation Alliance*	RBIA, with partners including Virginia Tech, Carilion Clinic, and Virginia Western Community College, leads Region 2 – VITAL, a three-pillar initiative to grow biotechnology. The project supports startups through mentoring, compliance assistance, and lab-to-market initiatives; expands access to capital with training, investor connections, and a proof-of-concept grant program; and strengthens talent pipelines through K-12 outreach, higher education programming, internships, and commercialization fellowships.	L
GO TEC Launch (2025-2027) *Montgomery County Public Schools*	Great Opportunities in Technology and Engineering Careers (GO-TEC) is launching in Region 2, starting with New River Valley and Roanoke County schools, to give students hands-on experience in high-demand fields through partnerships with education and industry. The program introduces middle schoolers to career pathways in precision machining, welding, IT/cybersecurity, robotics, automation, mechatronics, and advanced materials.	All
NRV Site Advancement Strategy (2025-2026) *New River Valley Regional Commission*	This project will update and expand upon the 2019 VBRSP assessment by evaluating industrial sites across 5 New River localities. Infrastructure and site improvements, land ownership changes, and shifting market conditions have impacted site readiness, making an updated assessment necessary. This will identify infrastructure gaps, environmental constraints, and site development needs, providing a clear path for advancing sites through the VBRSP tiers.	A, M
Say Yes to LYH Regional Talent Portal (2025-2027) *Lynchburg Regional Business Alliance*	This grant will support the launch of SayYestoLYHRegion.org, an innovative digital talent hub designed to attract, develop, and retain talent in the Lynchburg Region. This online platform will serve as a centralized resource that connects job seekers, students, educators, and employers with high-impact tools and information to support career exploration, workforce entry, and advancement.	All

2025
APPENDIX B:
SITE INFRASTRUCTURE NEEDS BY TARGET INDUSTRY CLUSTER

SITE INFRASTRUCTURE NEEDS
LIFE SCIENCES & BIOTECHNOLOGY

Life Science buildings have multiple infrastructure needs as they work to support research, experimentation, and collaboration. Such buildings require advanced infrastructure systems to support operations, including mechanical, electrical, and plumbing systems. This is required to 1) power advanced lab equipment such as those using AI to accelerate drug discovery, and 2) maintain precise environmental controls in wet labs, clean rooms, and containment areas.

R&D, testing and manufacturing facilities need a diverse set of infrastructure and space, all with flexible layouts that can adapt to changing research and market requirements.

Specialized Infrastructure Needs

- Research and development labs, both wet (for experimenting) and dry (for modeling)
- Systems/processes for hazardous material waste
- Outside storage for chemical or medical waste
- Specialized chemical storage, climate control, and cleanroom spaces

- Special ventilation, fireproofing, and extra power for safety
- Exhaust devices and plumbing fixtures
- Heating equipment
- Space, speed, flexibility, and agility for evolving needs

Core Needs

Zoning Requirements

- Industrial
- Planned Industrial
- Research & Development
- Industrial
- Office
- Mixed Use Development

Utilities & Communication

- Redundant Power
- High-capacity electric supply
- 24-hour power supply
- Emergency backup generators
- Heavy duty HVACs
- Advanced water/sewer systems

Site Requirements

- Flat or gently sloping sites
- Greater loading capacity
- Increased floor-to-ceiling heights

SITE INFRASTRUCTURE NEEDS
IT, ENGINEERING SERVICES, & EMERGING TECH

An IT/professional development site requires complex infrastructure that combines reliability, accessibility, and content management. It is important to consider zoning regulations, infrastructure, and facility design to support digital and in-person learning environments. It is important to ensure that the site complies with building codes, ADA accessibility standards, and fire safety regulations, which is essential to create a safe and inclusive environment.

The facility should have high-speed internet infrastructure, dedicated server rooms for hosting digital learning platforms, and sufficient electrical capacity to support technology-driven operations. To accommodate all individuals, adequate parking, public transit access, and security measures are also critical for accessibility and safety.

## Specialized Infrastructure Needs

- Complex Security Systems
- Connectivity & Bandwidth
- Proximity to Cloud Hubs or Data Centers

- Accessibility Required for all Individuals
- Power Supply & Redundancy
- Utility Availability

Core Needs

Zoning Requirements

- General/Planned Commercial District
- Office District
- IT Information Tech District
- Mixed Use Development District
- Research and Development District
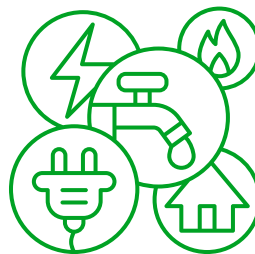
Utilities & Communication

- Electricity and water
- Backup Uninterruptible Power
- Clean and affordable power
- Static electricity control
- Electric grounding
- Water level detection
- High-speed internet

Site Requirements

- Flat or gently sloping sites
- Sufficient space and flexible spaces to adapt to needs
- Enterprise Zone
- Economic Development Interest

SITE INFRASTRUCTURE NEEDS
ADVANCED MATERIALS MANUFACTURING

To ensure that advanced materials facility is effective it is important to ensure strategic planning to meet zoning regulations, safety standards, and specialized infrastructure needs. The facility needs to complywith OSHA and EPA regulations to ensure safe handling of materials, particularly if hazardous substances are involved. High-performance laboratories, clean rooms, and climate-controlled storage areas are essential for research, testing, and production.

Additionally, the building must have reinforced structural components to support heavy equipment, advanced ventilation and filtration systems to manage air quality, and proper waste disposal systems for hazardous byproducts. Access to reliable utilities, such as high-voltage power for specialized machinery and water purification systems for material synthesis, is crucial.

Specialized Infrastructure Needs

- Laboratory spaces (Cleanrooms, Wet/Dry Labs)
- Air pressure-controlled rooms
- Vibration isolation
- High Utility and Power Supply
- Availability for Testing & Production Equipment

- Electromagnetic shielding
- Specialized gas lines
- Safety disposal rooms
- Environmental Controls
- Controlled Environment Rooms

Core Needs

Zoning Requirements
- Industrial District
- Planned Industrial District
- Research and Development
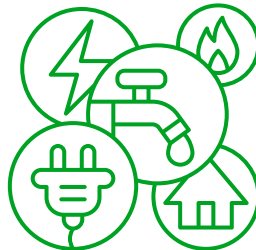
Utilities & Communication
- Electricity and water
- Natural gas supply
- Internet and Broadband

Site Requirements
- Flat or gently sloping sites
- Foreign Trade Zone
- Opportunity Zone

SITE INFRASTRUCTURE NEEDS
MANUFACTURING FOR TRANSPORTATION, ENERGY & AUTONOMY

Developing an advanced manufacturing facility requires careful planning to meet zoning, infrastructure, and operational needs. The site must comply with industrial zoning regulations, which may require special permits for high-tech manufacturing processes, environmental impact assessments, and adherence to OSHA and EPA standards for worker and environmental safety.

The facility should have high-load structural capacity, large open floor plans for flexible production layouts, and reinforced flooring to support heavy machinery. Specialized HVAC, dust collection, and air filtration systems are essential for maintaining air quality, especially in precision manufacturing. Additionally, high-voltage electrical capacity, robust data networks, and automation infrastructure must be integrated to support advanced robotics, AI-driven processes, and real-time monitoring.

Specialized Infrastructure Needs

- Cleanrooms for manufacturing and testing semiconductors
- Cold storage facility design
- Waste Management
- Environmental Controls
- Developed quickly for rapid production demands
- Space and Load Bearing Capacity for Machinery
- Adequate Power Supply

Core Needs

Zoning Requirements

- Heavy Manufacturing and Distribution Zoning
- Industrial District
- Planned Industrial District
- Research and Development
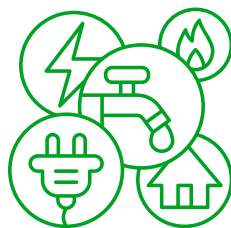
Utilities & Communication

- Sewer, water, and utility capacity
- Fire suppression and hazardous material management
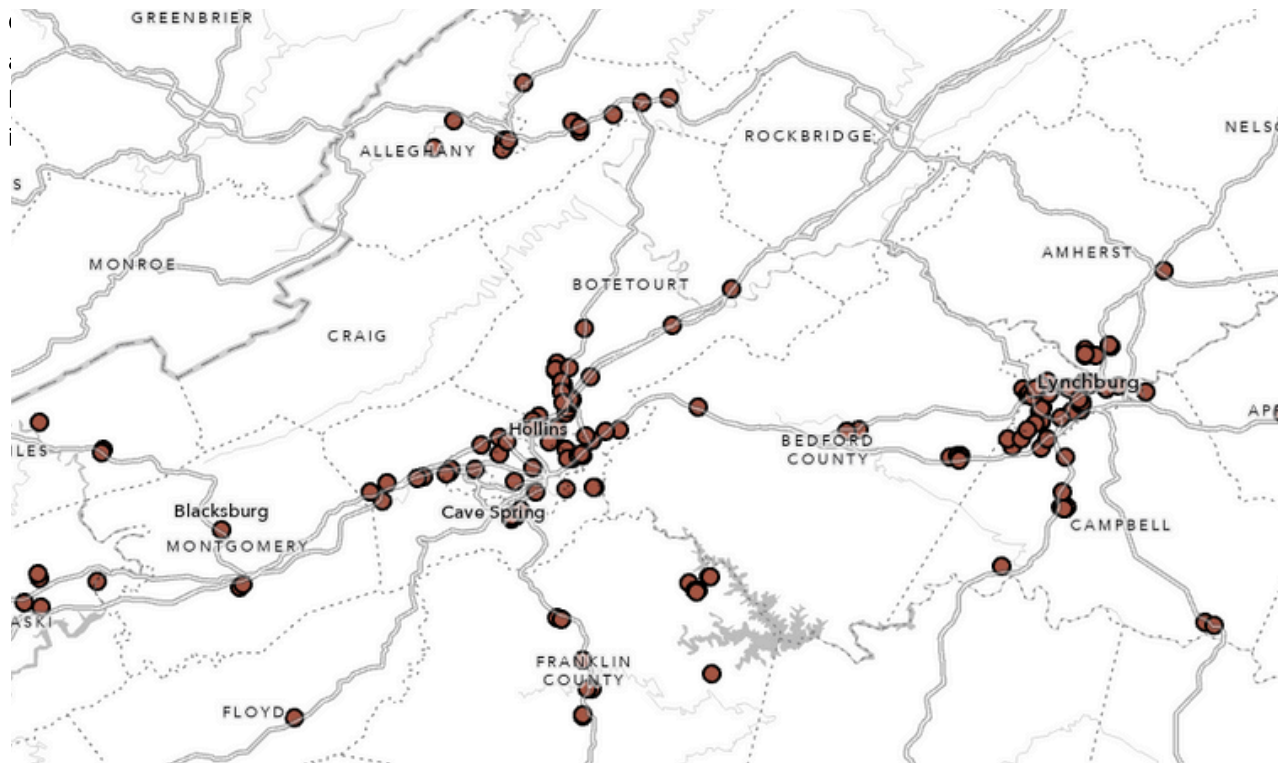- Wastewater treatment and recycling

Site Requirements

- Flat or gently sloping sites
- Large-scale buildings and manufacturing plants
- High ceiling buildings
- Large contiguous acreage

2025
APPENDIX C: REGION AND SUBREGION SITE ANALYSIS

SITES ANALYSIS

193	Industry and Commercial Sites	**11,531**	Total Acreage of All Sites in the Region	
26	"Business Ready" Sites under VBRSP	**59**	Average Acreage per Site	

Virginia Business Ready	Number of Sites
Tier 1	2
Tier 2	8
Tier 3	9
Tier 4	7
Tier 5	0

Source Virginia Economic Development Partnership

Sub-Region	Number of Sites	Total Acreage of Sites	Average Acreage per Site
Greater Lynchburg	84	4,526	55
Roanoke-Alleghany	98	4,464	46
New River Valley	11	2,471	224
Total	193	11,461	108

Source Virginia Economic Development Partnership

Select GO Virginia Region 2 Sites

Wheatland EcoPark
Giles, VA

Wheatland EcoPark is 130 acres designed for industrial uses, equipped with large-acreage sites with advanced infrastructure to support high-tech and advanced manufacturing operations. Its strong transportation access, availability of utilities, and eco-friendly development approach makes the site ideal for **advanced manufacturing.**

Summit View Business Park
Franklin, VA

Summit View Business Park, a 24 acre site designed to support industrial uses through it's modern infrastructure, ample space for expansion, and proximity to major transportation routes make it ideal for advanced materials manufacturing, providing businesses with the utilities and logistical advantages for **advanced material production**


Roanoke County Center for Research and Technology
Roanoke, VA

Roanoke County Center for Research and Technology is a 167 acre business park designed for innovation-driven industries. Its access to a skilled workforce, fiber-optic connectivity, and strong regional support for technology-driven enterprises make it an ideal location for **research and development,** fostering collaboration and cutting-edge advancements.

Site Information for Greater Lynchburg

84	Industry and Commercial Sites
14	"Business Ready" Sites under VBRSP
4,526	Total Acreage of All Sites in the Region
55	Average Acreage per Site
20	Foreign Trade Zones
30	Opportunity Zones
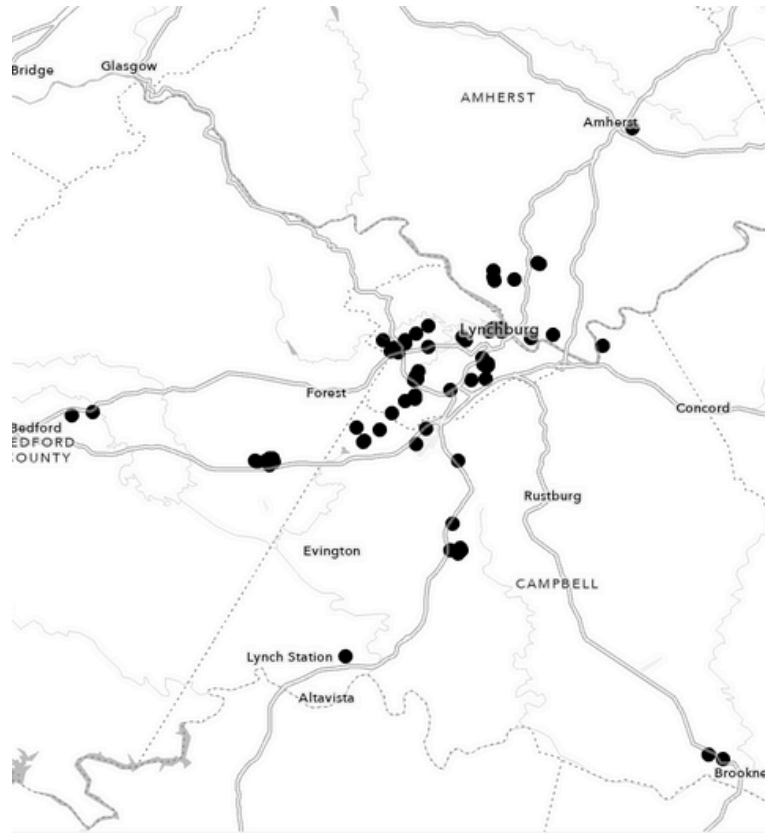
% Equipped with Water
100%

% Equipped with Electricity
100%

% Equipped with Natural Gas
80%

% Equipped with Internet
96%

Virginia Business Ready	Number of Sites
Tier 1	2
Tier 2	9
Tier 3	2
Tier 4	1
Tier 5	0

Virginia Business Ready Sites

- Amherst County
  - Amelon Commerce Center (Tier 4)
  - Dillard Tract (Tier 2)
  - Barnes Brockman Business and Industrial Park (Tier 2)
- Appomattox County
  - Center for Business and Commerce (Tier 2)
- Bedford County
  - New London Business and Technology Center (Tier 3)
  - New London Phase 2 (Tier 3)
  - Little Otter Business Park (Tier 2)
  - Montvale Center for Commerce (Tier 2)
- Campbell County
  - Dearing Ford Business & Manufacturing Center Phase 3 (Tier 2)
  - Seneca Commerce Park (Tier 2)
  - Brookneal-Campbell County Industrial Park (Tier 2)
- City of Lynchburg
  - Ivy Creek Innovation Park (Tier 2)

Source Virginia Economic Development Partnership

Greater Lynchburg Sites

Ivy Creek Innovation Park

Greater Lynchburg, VA

Ivy Creek Innovation Park a 479 site, ideal **advanced manufacturing,** offering proper infrastructure, reliable utilities, and direct access to major transportation routes. It's environment and available expansion space make it an ideal location for manufacturers looking to scale operations and integrate cutting-edge production technologies.

Seneca Commerce Park

Bedford, VA

Seneca Commerce Park, a 123 acre site is an excellent location for **advanced materials** industries, providing ample space, modern infrastructure, and strong transportation access. The park benefits from its proximity to research institutions and manufacturing hubs, making it ideal for companies developing composite materials, high-performance coatings, and next-generation manufacturing components.

Appomattox Center for Business and Commerce

Appomattox, VA

The Appomattox Center for Business and Commerce is a prime location for **research and development**, featuring strong regional support, and proximity to Virginia's growing tech and innovation sector. The site is 485 acres and provides access to a highly educated workforce, modern infrastructure, and collaborative opportunities with universities and research institutions. With a focus on fostering innovation, offering business incentives, and supporting emerging technologies, this site is perfect for R&D firms.

Site Information for the New River Valley

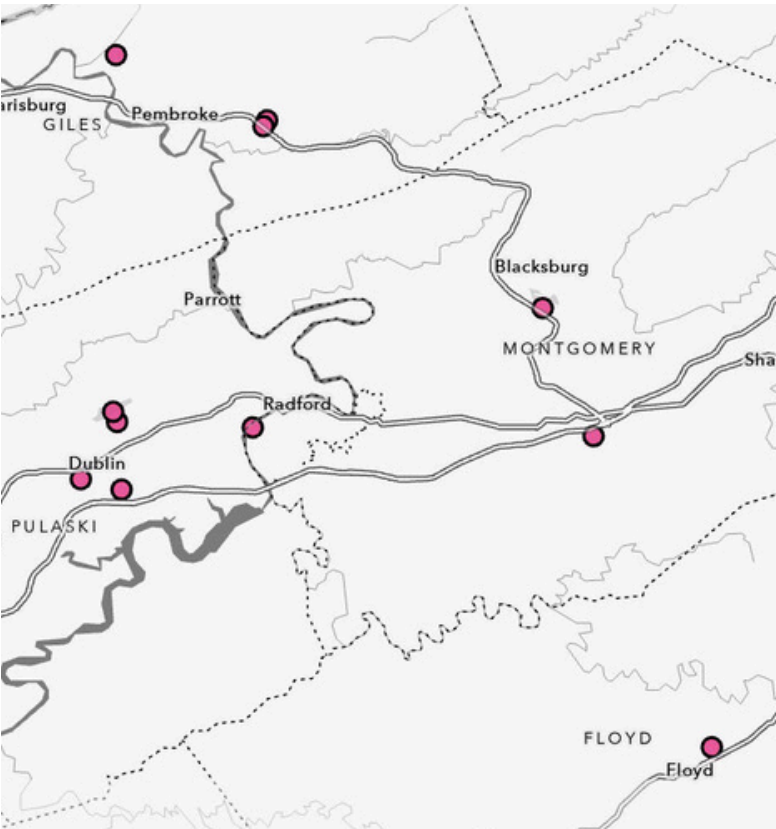|	
11	Industry and Commercial Sites
5	"Business Ready" Sites under VBRSP
2,471	Total Acreage of All Sites in the Region
247	Average Acreage per Site
5	Foreign Trade Zones
5	Opportunity Zones

% Equipped with Water	% Equipped with Electricity	% Equipped with Natural Gas	% Equipped with Internet
100%	100%	82%	100%

Virginia Business Ready	Number of Sites
Tier 1	0
Tier 2	3
Tier 3	0
Tier 4	2
Tier 5	0

Virginia Business Ready Sites

- Floyd County
    - Floyd Regional Commerce Center (Tier 2)
- Giles County
    - Wheatland EcoPark (Tier 2)
- Montgomery County
    - Falling Branch Corporate Park Phase II (Tier 4)
- Pulaski County
    - New River Valley Commerce Park (Tier 4)
- City of Radford
    - VCI Site (Tier 2)

New River Valley Sites

New River Valley Commerce Park
Pulaski, VA

New River Valley Commerce Park, a 844 acre site is ideal for **advanced manufacturing**, offering large, industrial-zoned sites with excellent infrastructure and multimodal transportation access. Situated in Pulaski, VA, the park provides proximity to Interstate 81, rail service, and regional airports, allowing for efficient distribution and supply chain operations.

Virginia Tech Corporate Research Center - Phase II Sites
Blacksburg, VA

The Virginia Tech Corporate Research Center (VTCRC) — Phase II Sites, comprised of 230 acres is ideal for **life sciences and research & development**. Its close proximity to multiple research and development and Life Scienceslabs makes it an attractive hub as the area hosts venture funding resources, and a dynamic innovation ecosystem.


Floyd Regional Commerce Center
Floyd, VA

Floyd Regional Commerce Center is an ideal site for **advanced materials manufacturing** comprising of 169 acres. The site is well-equipped for industrial spaces in a business-friendly rural setting. The site provides easy access to U.S. Route 221 and regional markets, making it a strategic choice for advanced materials companies, specializing in composite materials, nanotechnology, and high-performance textiles.

Site Information for Roanoke Valley Alleghany Region

98	**Industry and Commercial Sites**
17	**"Business Ready" Sites under VBRSP**
4,464	**Total Acreage of All Sites in the Region**
46	**Average Acreage per Site**
34	**Foreign Trade Zones**
18	**Opportunity Zones**
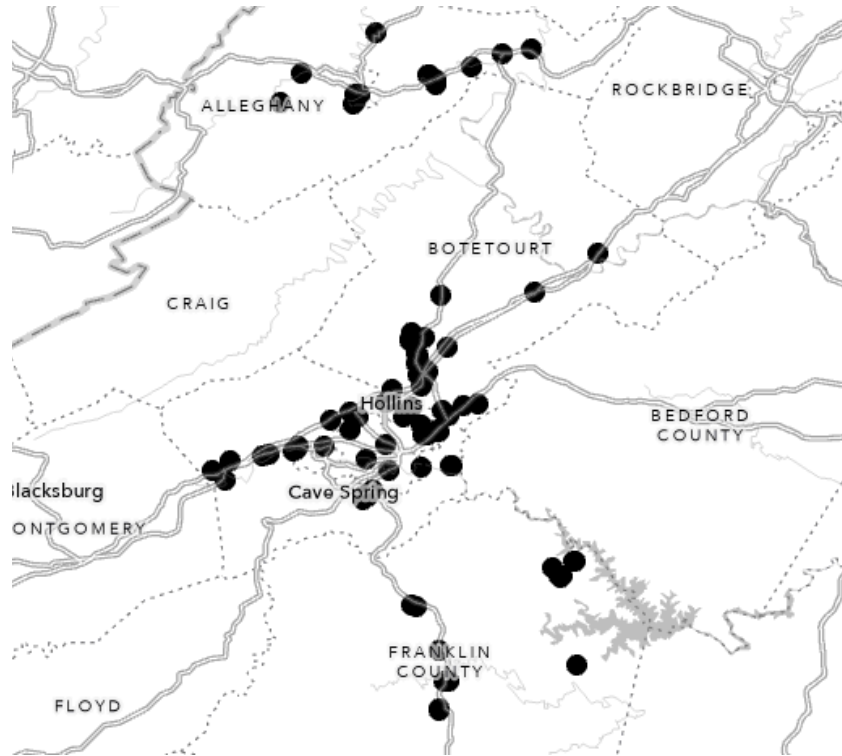
% Equipped with Water	% Equipped with Electricity	% Equipped with Natural Gas	% Equipped with Internet
100%	100%	40%	100%

Virginia Business Ready	Number of Sites
Tier 1	5
Tier 2	7
Tier 3	3
Tier 4	2
Tier 5	0

Virginia Business Ready Sites

- Alleghany County
  - Alleghany Regional Commerce Center (Tier 2)
  - Alleghany Innovation Park (Tier 2)
- City of Covington
  - AET Slab (Tier 2)
  - Rail Over River Industrial Park (Tier 2)
- Botetourt County
  - Botetourt Center at Greenfield (Tier 3)
  - Carvins-Hollins Site (Tier 2)
- Franklin County
  - Summit View Business Park (Tier 3)
  - Summit View Business Park - Dogwood Site (Tier 4)
  - Rocky Mount-Franklin County Industrial Park (Tier 2)
- Roanoke County
  - Wood Haven Technology Park (Tier 4)
  - Shadwell Industrial Park (Tier 2)
- City of Roanoke
  - Roanoke Centre for Industry and Technology - Tract 8 (Tier 3)

Source Virginia Economic Development Partnership

Roanoke Sites

Botetourt Center at Greenfield Lot 3

Botetourt County, VA

Botetourt Center at Greenfield – Lot 3 is a prime site for **advanced manufacturing,** featuring 124 acres, high-capacity utilities, and excellent transportation access via Interstate 81 and nearby rail connections. Located in Botetourt County, VA, this site is part of a growing industrial park that hosts major manufacturers.

Alleghany Innovation Park

Alleghany County, VA

Alleghany Innovation Park in Alleghany County, VA, is an emerging hub for **life sciences**, offering ample space for research, development, and biotechnology manufacturing. With proximity to medical research institutions, universities, and healthcare providers, this site is well-positioned for companies focusing on biotechnology, pharmaceuticals, and medical device production

Roanoke County Center for Research and Technology

Roanoke, VA

The Roanoke County Center for Research and Technology, comprised of 167 acres is a premier destination for **research and development,** offering high-speed broadband, modern infrastructure, and a business-friendly environment in Roanoke, VA. With its proximity to Virginia Tech, Carilion Clinic, and Fralin Biomedical Research Institute, the park provides unique collaboration opportunities for technology, healthcare, and engineering firms.