



VIRGINIA INITIATIVE FOR
GROWTH & OPPORTUNITY
IN EACH REGION

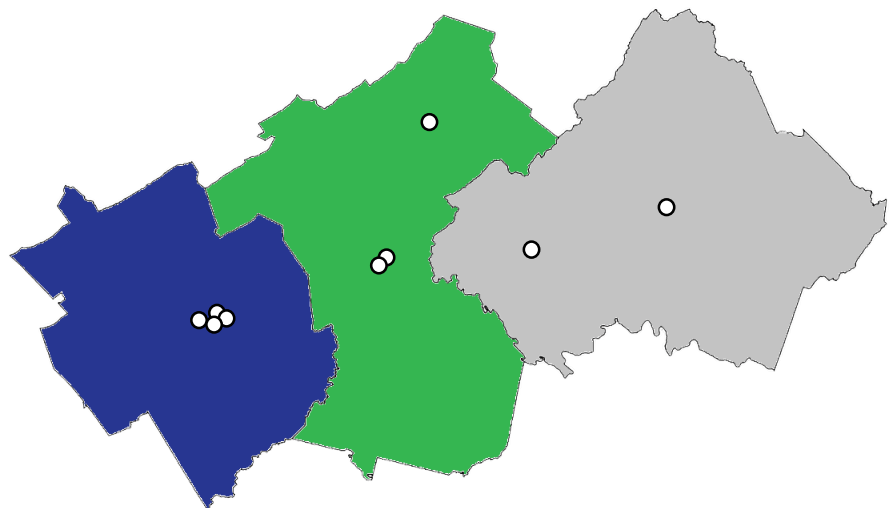
Region 2 Growth and Diversification Plan Initial Breakout Groups

Innovative Cluster Scale Up

Strategies	Opportunities
Increase investments and support for emerging and critical industries and innovative technologies	Activities to encourage development of pre-seed and early-stage seed funding
	Activities that connect regional companies to investors outside the region.
	Activities that enhance support services and technical assistance capabilities for small-to mid-sized companies in important and emerging industries.
	Activities to support the growth and viability of companies exploring “game-changing” technologies in such areas as Unmanned Autonomous Systems, additive manufacturing, and similar.
	Activities that support entrepreneurs in acquiring government and private funding
Expand and enhance technology transfer and research commercialization to spur regional company growth and venture creation.	Activities to better connect regional companies (including small to medium sized enterprises) with universities and research centers.
	Activities that help formalize and sustain regional research networks and consortiums.
	Activities to expand incubator/accelerator activities that provide mentorship and resources for new ventures engaged in commercialization.
	Activities that would incentivize universities and researchers to increase regionally-focused start-ups and commercialization opportunities.
Support and enhance regional talent attraction efforts.	Activities to help measure, market, and illustrate the region’s assets, stories, and quality of life.
	Activities that target, recruit, and market to workers and highly skilled individuals outside Virginia.
Grow the number of individuals entering and completing training and educational programs for higher-wage in-demand occupations.	Activities that market higher wage job opportunities and training and education programs to younger people (K—12 level).
	Activities that help raise awareness and appeal of industries and occupations such as advanced manufacturing.
	Activities to offer more varied, innovative, and accessible training and educational opportunities for higher-wage in-demand occupations (web-based, distance learning, intensive boot-camp learning, pre-apprenticeships, etc.)

9 Projects (\$388 thousand)

- CERE Labs at Liberty University
- ELITE Internship Program
- Pivot & RAMP Up
- Blockchain Ecosystem Catalyst
- Classrooms to Careers
- Stopping the Brain Drain
- Talent Collaborative
- Highlands Drone Zone
- VA Bio-Connect



What is an industry cluster?

Clusters are groups and networks of geographically interdependent firms, knowledge-producing institutions (universities, research institutes, technology-providing firms), bridging institutions (e.g. providers of technical or consultancy services) and customers, linked in a production chain which creates added value together. The concept of the cluster goes beyond that of firm networking, as it captures all forms of knowledge sharing and exchange. Clusters have a more industrial or productive orientation than science and technology parks.

Defining Cluster Scale Up

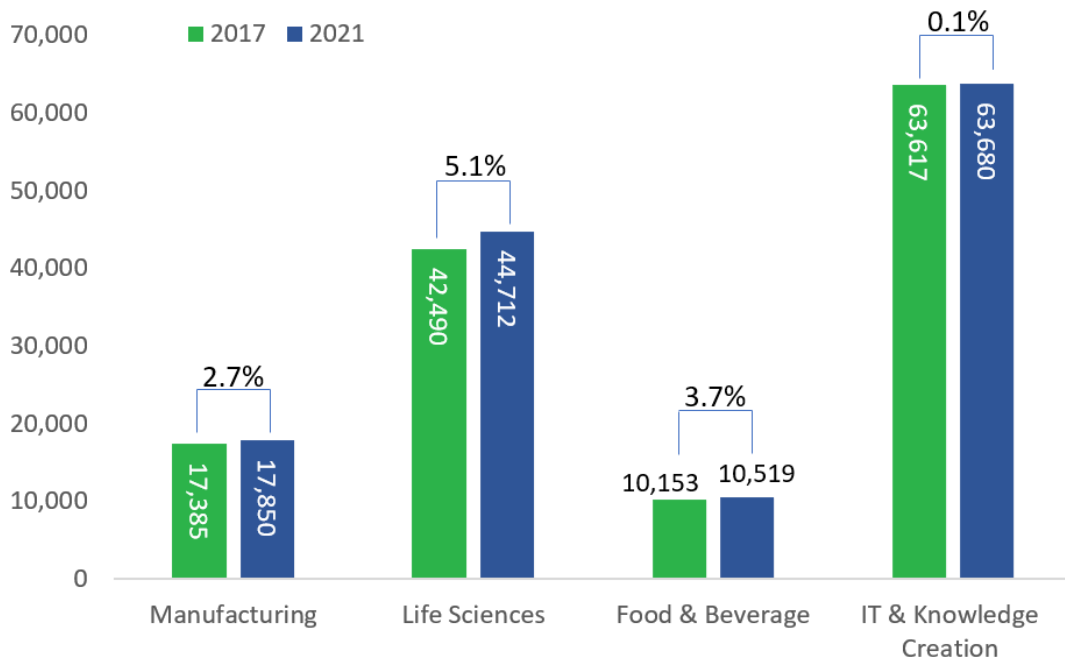
Technical and business support that will accelerate growth of innovative clusters, and that's both hard and soft infrastructure

Why Cluster Scale Up?

- Under-performance of technology development and commercialization strategies from last plan
- GOVA state-level focus on cluster scale up
- Need strategies that directly address strengthening emerging and existent industry clusters, particularly those outlined in the GOVA Region 2 plan.

Proposed GOVA Industry Clusters (Median wage = \$22/hour or \$46K annually)			
Manufacturing (\$23/hr)	Food and Beverage Manufacturing (\$19/hr)	Life Sciences and Health Care (\$27/hr)	Emerging Tech and IT Cluster (\$26/hr)
<ul style="list-style-type: none"> •Automotive •Metalworking Tech •Lighting & Electrical Equipment •Paper & Packaging •Downstream Chemicals • 	<ul style="list-style-type: none"> •Agricultural Inputs & Services •Food Processing & Manufacturing •Food & Beverage Packaging* •Wholesale & Distribution* 	<ul style="list-style-type: none"> •Inpatient Care •Outpatient Care •Eldercare •Biopharm. & Medical Devices •Medical Diagnostics & Support Services 	<ul style="list-style-type: none"> •Knowledge Creation (Ed Institutions) •IT & Cybersecurity •Autonomous Systems
Added additional industries related to transportation	Added industries related to packaging and distribution	Same as 2017 but broke out "healthcare"	Same

Target Industry Cluster Employment Growth (2017-2021)



Region 2 Traded Industry Sector Trends

Major Traded Industry Cluster	Summary of Economic Development Position in Region, 2018-2020
Agriculture & Food Processing	Small, Declining
Business Services	Mid-sized, Emerging Opportunity
Energy, Natural Resources, & Finished Products	Mid-sized, Declining Specialization
Engineering, R&D, Testing & Technical Services	Small, Declining
Financial & Insurance Services	Small, Declining
Health Care Services	Mid-Sized, Declining Specialization
Information Technology & Communications Services	Small, Declining
Life Sciences	Small, Declining
Manufacturing	Large, Declining Specialization
Ship Building, Aerospace, & Defense	Small, Emerging Strength
Transportation, Distribution and Logistics	Mid-sized, Emerging Opportunity

Major Traded Industry Cluster	Measures of Regional Economic Performance for overall Traded Industry Cluster		
	2020 Employment	Regional 2018-20 Percentage Job Growth	U.S. 2018-20 Percentage Job Growth
Agriculture & Food Processing	4,441	-2.8%	0.4%
Business Services	14,692	0.3%	0.3%
Energy, Natural Resources, & Finished Products	8,391	-2.4%	-3.3%
Engineering, R&D, Testing & Technical Services	3,674	-5.5%	3.8%
Financial & Insurance Services	4,325	-1.7%	0.0%
Health Care Services	15,870	-1.8%	0.8%
Information Technology & Communications Services	4,199	-2.3%	6.9%
Life Sciences	1,867	-3.8%	4.6%
Manufacturing	31,156	-2.2%	-3.1%
Ship Building, Aerospace, & Defense	303	27.6%	4.7%
Transportation, Distribution and Logistics	13,235	1.5%	2.1%

*See previous slide for data on new business formation by traded industry cluster
 Source: Quarterly Census of Employment and Wages (QCEW) via Emsi; TEconomy analysis.