

# Regional Entrepreneurial Assessment Project:

## Presentation on Final Briefing Report

### *Region 9: Piedmont Opportunity Corridor*

December 2018

# Key Elements of Briefing Report

- I. Project Overview
- II. Project Key Steps
- III. Framework for Assessment
- IV. Situational Assessment
- V. Identification of Potential Priority Actions

## Appendices:

- Appendix A: Listing of Working Group Members
- Appendix B: Data Trends on Entrepreneurial Development
- Appendix C: Regional Asset Inventory
- Appendix D: Competitive Benchmarking
- Appendix E: Benchmark Case Study Profiles

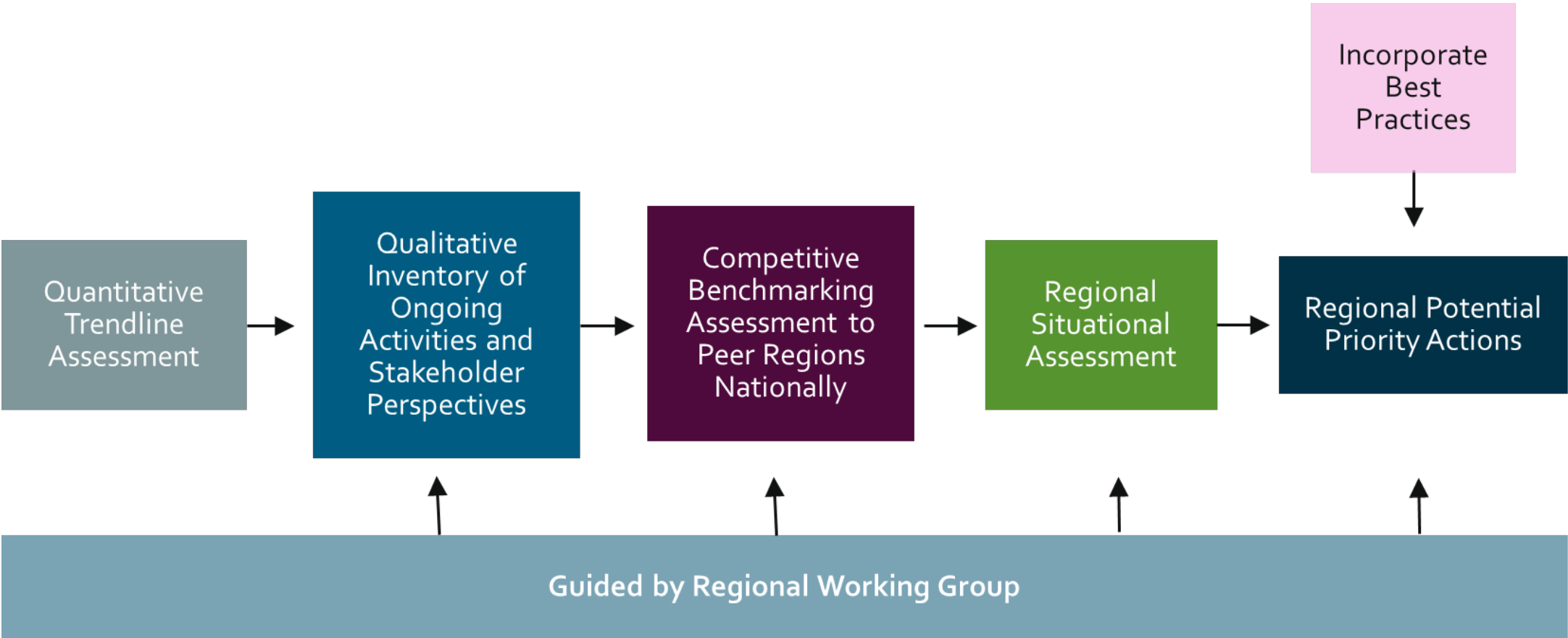
# Overview

The purpose of this briefing report is to provide a high-level baseline assessment of entrepreneurial development and identification of potential priority actions in GO Virginia Region 9 – the Piedmont Opportunity Corridor.

## *Setting the Context: Importance of Entrepreneurial Development for Regional Growth*

- In 2017, there were 1,317 surviving traded sector startups formed since 2007 in Region 9
- 7,856 jobs in 2017 were found in these 1,317 surviving startups
- By comparison, over the 2007-2017 period, total traded sector industry employment grew by a mere 769 jobs in Region 9.
- So without entrepreneurial growth, Region 9 would have had a decline in its traded sector industry employment

# Project Work Plan



# Strategic Framework: Focus on Traded Sector Industries

- **Of particular importance to GO Virginia is focusing on those new start-ups in traded sector industry activities that serve customers and markets beyond their local communities, and as a result, can drive regional economic growth.**
- It includes industries such as: manufacturing; professional, scientific and technical services; information technology; finance and insurance; transportation and warehousing; mining; and agriculture and food processing

*“[Traded industry clusters] are free to choose their location of operation (unless the location of natural resources drives where they can be) and are highly concentrated in a few regions, tending to only appear in regions that afford specific competitive advantages.*

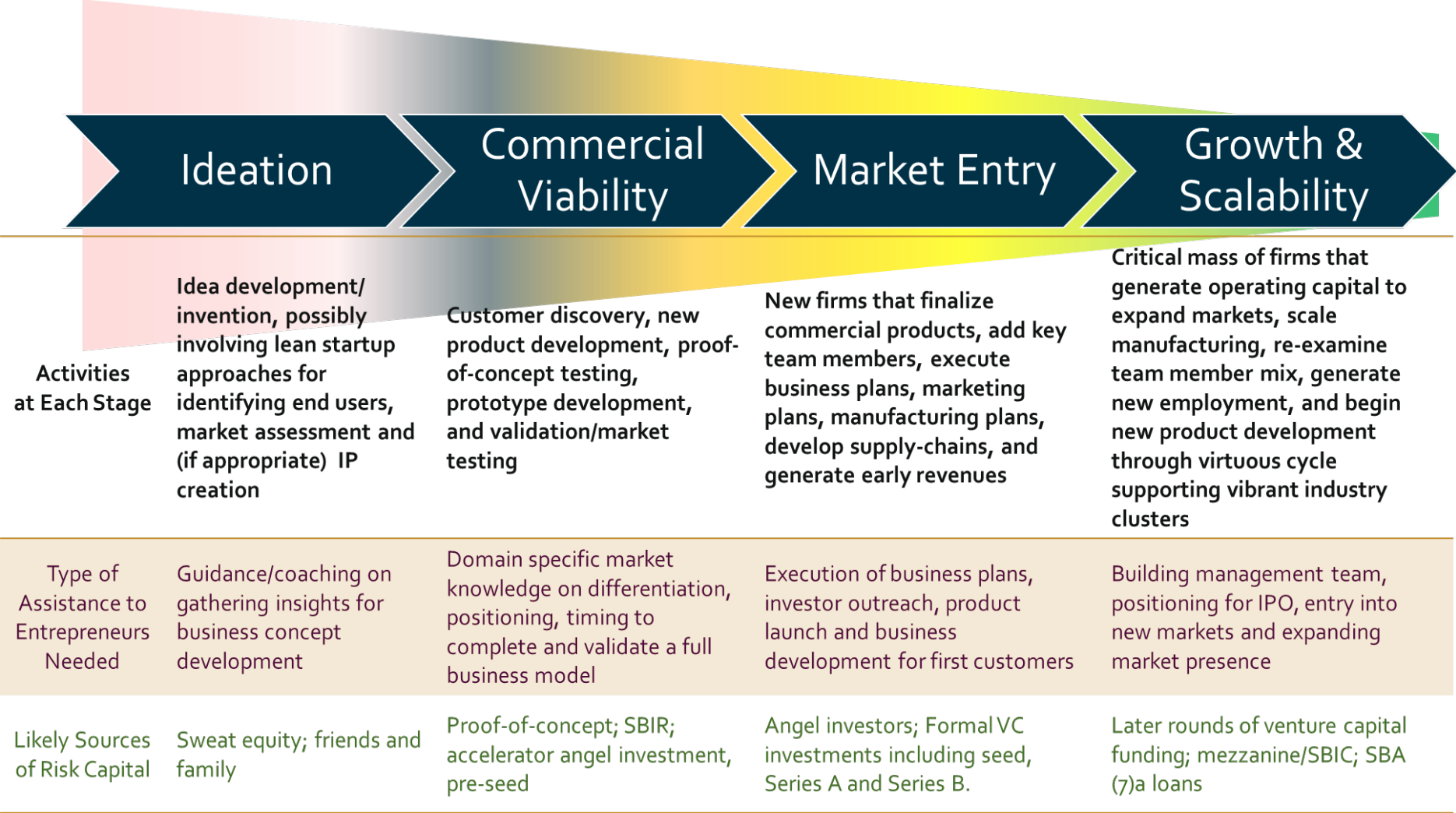
*Since traded clusters compete in cross-regional markets, they are exposed to competition from other regions...Traded clusters are the "engines" of regional economies; without strong traded clusters it is virtually impossible for a region to reach high levels of overall economic performance.”*

Source: US Cluster Mapping Project, led by Harvard & MIT for U.S. EDA

# Strategic Framework: Focus on Entrepreneurial Development Stages

Entrepreneurship is a process involving an interconnected set of development stages supported by public and private resources and services that generates successful new startup businesses to drive regional economic growth.

If a region is underperforming in any stage of entrepreneurial development, then it will not realize its full potential in traded sector growth.



# Assessment of Ideation in Region 9

## Overall Assessment:

*Generally positive trends and significant asset base to build upon, but significant opportunities for advancing new program activities.*

### Strengths and Opportunities:

- Competitive in overall levels of business formation
- Broad geographic footprint of traded sector startups across region
- Diversity in startup activities across traded sector industry clusters
- Significant annual generation of patents – largely generated from private industry – with a focus on both IT and life sciences.
- University research is sizable and growing strongly
- Talent base of highly educated workers
- A growing focus on creating entrepreneurial service hubs in region underway in Charlottesville and Fauquier County

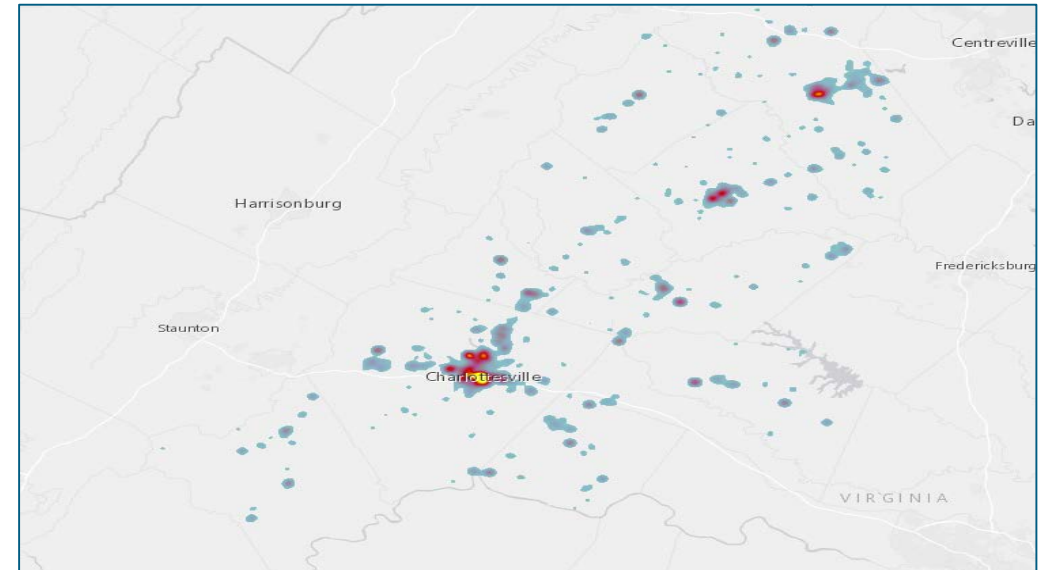
### Gaps and Weaknesses:

- Significant volatility in business startups from year-to-year, with a range from 148 startups (2017) to 301 startups (2013) in just the past five years
- Limited programming targeted to traded sector entrepreneurs outside of University of Virginia's efforts -- though these UVA efforts are seeking to reach out to broader community base of entrepreneurs

# Key Graphics from Assessment of Ideation in Region 9

Region 9 has diversity in base of startups across traded sector industry clusters as well as across areas of the region

Major Industry Cluster*** (those relating to regional priority clusters bold faced)	Number of Start-ups Since 2007 Surviving by 2017	Start-up Employment Levels, 2017
<b>Agriculture &amp; Food Processing</b>	<b>195</b>	<b>1,056</b>
<b>Business Services</b>	<b>637</b>	<b>2,653</b>
Energy, Natural Resources, & Finished Products	63	406
Engineering, R&D, Testing & Technical Services	97	654
<b>Financial &amp; Insurance Services</b>	<b>170</b>	<b>613</b>
<b>Health Care Services</b>	<b>28</b>	<b>710</b>
<b>Information Technology &amp; Communications Services</b>	<b>74</b>	<b>577</b>
<b>Life Sciences</b>	<b>42</b>	<b>389</b>
<b>Manufacturing</b>	<b>58</b>	<b>608</b>
Ship Building, Aerospace, & Defense	4	78
Transportation, Distribution and Logistics	231	1,438



Subregions	2017 Number of Startups since 2007 in existence	2017 Employment from Startups since 2007	Number of High Growth Startups since 2007 with 10+ Employees	Industry Clusters with Multiple High Growth Companies of 10+ Employees
Charlottesville Metro Area (Charlottesville, Albemarle, Fluvanna, Greene, Nelson)	1,470 (57%)	4,656 (59%)	35	Diversified across engineering/R&D; business services; TDL; ICT; life sciences
Culpeper	261	885	3	
Fauquier	435	1,285	9	ICT; TDL
Louisa	118	293	2	
Madison	55	142	1	
Orange	166	423	4	ICT
Rappahannock	66	172	0	



# Assessment of Commercial Viability in Region 9

## Overall Assessment:

*Specific strength in university research commercialization for life sciences that can be expanded to other fields, plus opportunity to better position base of innovative companies found in region for success in commercializing products*

## Strengths and Opportunities:

- Sizable base of SBIR funding to small innovation-based companies
- University technology transfer performing above national average, but room for improved compared to top performing universities such as Purdue and University of Florida.
- University of Virginia's success in life sciences commercialization to validate technologies and business models

## Gaps and Weaknesses:

- Missing toolbox for supporting technology commercialization targeted to emerging companies across the region.
  - More informal network for accelerating companies, and not more systematic programming with quality and scale.
  - University of Virginia research commercialization efforts outside of life sciences are lagging, including no proof-of-concept funding, mentor networks, access to entrepreneurs-in-residence to scout for technologies and pre-seed/seed funding.

# Assessment of Market Entry in Region 9

## Overall Assessment:

*Key strength of region's entrepreneurial ecosystem, led by private-sector venture investment.*

### Strengths and Opportunities:

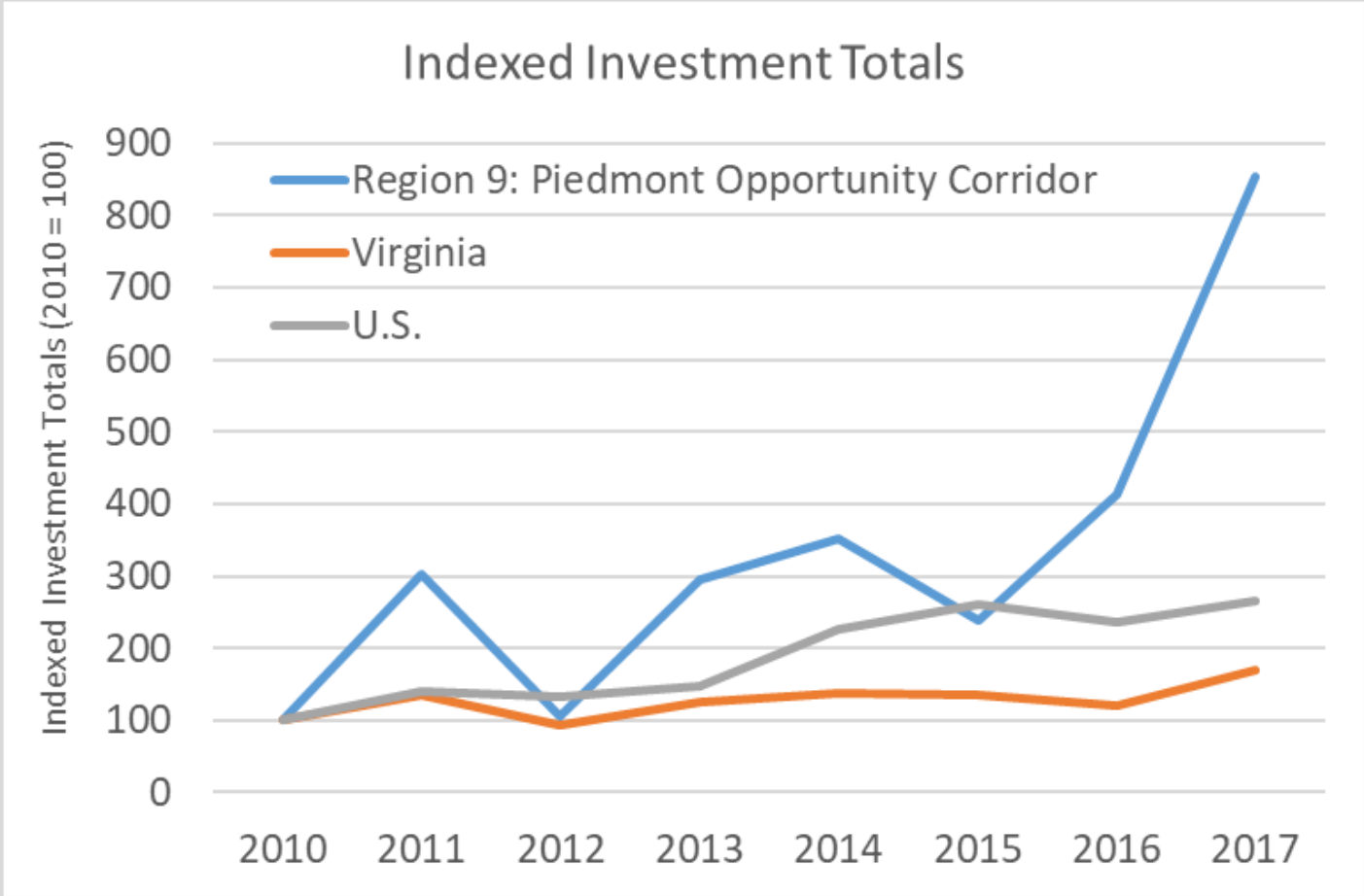
- High performing in share and growth of jobs in younger, traded sector firms
- Level and growth of venture capital significantly outpacing peers
- Angel investments by high-net worth investors in the region, led by Charlottesville Angel Network, has been a crucial resource
- Incubator and co-working spaces targeted to entrepreneurs found in both Charlottesville and Fauquier counties

### Gaps and Weaknesses:

- Access to startup capital in Region 9 outside of Charlottesville -- No locally targeted angel investor or micro-loan funds for early stage startups found in northern counties of region
- Lack of lead early stage investors for high-potential startups needing formal venture capital investments beyond \$1-\$2 million from angel investor rounds
- Despite strength of life sciences commercialization, there is no specialized wet lab facilities for startup and emerging life science companies

# Key Graphic from Assessment of Market Entry in Region 9

## Venture Capital Growth in Region 9 Stands Out Nationally



# Assessment of Growth and Scalability in Region 9

## Overall Assessment:

*Uneven performance with significant opportunities to foster more retention and expansion of startups in the region.*

## Strengths and Opportunities:

- Right ingredients in region to grow startup companies
- Inc. 5000 fastest growing companies doubled in region and now stands at six
- Growth from startup companies important for many emerging industry clusters in the region as well as high-performing traditional industry of agriculture & food processing

## Gaps and Weaknesses:

- Surprisingly, low contribution of startups to growth of regional strength in Information and Communications Technology cluster
- Declines in SBA 7(a) loans supporting growth-oriented small businesses in more traditional-based traded sector industries.
- Concerns voiced by stakeholders of talent shortages to scale-up startups, despite in-migration, despite growth of highly educated workforce and positive in-migration
- Lack of networking for entrepreneurs and more formalized efforts to identify startup and emerging company needs outside of Charlottesville and, increasingly, Fauquier County
- Outside of life sciences in Charlottesville with Cville BioHub, there is no focused targeted sector programs to support entrepreneurial development.

# Key Graphic from Assessment of Growth and Scalability in Region 9

## Contribution of Entrepreneurial Development to Traded Sector Industry Cluster Growth

Industry Cluster	Economic Development Position in Region	Contribution of Entrepreneurship	Data Analysis						
			2017 Employment	2017 Location Quotient	Regional 2007-2017 Percentage Job Growth	U.S. 2007-2017 Percentage Job Growth	Net Job Growth, All Companies, 2007-2017	Net Job Growth, Startups, 2007-2017	Share Start-ups of All Net Job Growth, 2007-2017
Agriculture & Food Processing	Current Strength	Significant	3,827	1.19	47.2%	10.7%	1,227	1056	86%
Business Services	Sizable/Growing	Very Significant	6,796	0.84	4.8%	9.1%	313	2653	847%
Energy, Natural Resources, & Finished Products	Specialized/Declining	Very Significant	3,615	1.38	-18.7%	-13.3%	-829	406	>100%
Engineering, R&D, Testing & Technical Services	Emerging Strength	Very Significant	1,940	1.08	9.6%	6.5%	170	654	385%
Financial & Insurance Services	Emerging Strength	Very Significant	1,902	0.58	38.6%	-4.1%	530	613	116%
Information Technology & Communications Services	Current Strength	Modest	3,432	1.14	66.3%	50.8%	1,369	577	42%
Life Sciences	Emerging Strength	Very Significant	847	0.55	23.3%	9.7%	160	389	243%
Manufacturing	Declining	Very Significant	3,958	0.49	-32.3%	-13.5%	-1,891	608	>100%
Ship Building, Aerospace, & Defense	Current Strength	Modest	942	1.24	37.1%	-7.7%	255	78	31%
Transportation, Distribution and Logistics	Declining	Very Significant	3,985	0.56	-9.8%	8.7%	-435	1438	>100%

# Potential Priority Actions Identified for Entrepreneurial Development in Region 9

- Develop stronger ideation programming targeting traded sector startups.
- Support advancement of integrated accelerators-incubators-coworking entrepreneurial hubs across the region
- Catalyze wider range of risk capital in the region
- Strengthen networking of traded sector industry clusters
- Concept of a “Regional Entrepreneurial Quarterback”

# Potential Priority Action: Develop stronger ideation programming targeting traded sector opportunities

## Rationale:

- Take better advantage of region's strong base of talent and innovation activities to raise and sustain new business formation
- Limited ideation outreach currently in the region to broader base of non-university high-growth potential traded sector entrepreneurs
- Opportunity to raise entrepreneurial development in Information and Communication Technology cluster
- Opportunity to support small innovation businesses that receive or seek SBIR awards
- Address gap in UVA research commercialization efforts in non-life science areas, especially ICT or "tech" based businesses to raise contribution to growth of that sector

## Possible Activities:

- **Create an ongoing regional capacity to offer ideation programs** for potential entrepreneurs similar to SBDC's Innovation Commercialization Assistance Program
- **Leverage expertise and resources of UVA through its iCorps site** to have trainers and counselors from within the region
- **Create a referral network** tapping existing economic development organizations, coworking and incubator facilities, angel investors, local bankers and professional service providers
- **Sponsor entrepreneurs-in-residence fellows in targeted sectors relevant to Region 9** to work with identified regional entrepreneurial startup teams that successfully complete initial phases of ideation program and demonstrate high-growth potential

## Illustrative Best Practice Examples:

- Chattanooga, TN: Co.Starters 9 week lean startup program followed by Co.Lab Accelerator mentoring program for high-growth potential startups
- Charlotte: Ventureprise at UNC, Charlotte leverages its NSF i-Corps site to bring a customer discovery/mentorship program to non-university related, early-stage, innovation-driven startups in the region. Successful teams then able to tap micro-grant (up to \$10k) or seed grant (up to \$50k) from statewide NC IDEA program.
- Raleigh-Durham: Blackstone Entrepreneurs Network North Carolina that provides expert venture coaching through a veteran group of EIRs

# Potential Priority Action: Support advancement of integrated accelerators-incubators-coworking entrepreneurial hubs across the region

## Rationale:

- While Charlottesville is the major hub of entrepreneurial activity in Region 9, **there are significant pockets of entrepreneurial activity found across the region.**
- **Even Charlottesville lacks accelerator programs to support entrepreneurial teams** to be mentored and provided initial pre-seed funding to advance their business concepts to the stage of company launch, including the identification of customers, new product development and business planning for startups
- **Address gap in UVA research commercialization efforts in non-life science areas**, especially ICT or “tech” based businesses to raise contribution to growth of that sector

## Possible Activities:

- **Leverage existing and encourage formation of new enterprise centers offering incubation and coworking spaces** involving support of local public/private partnerships across communities in Region 9
- **Create a collaboration across entrepreneurial hubs** to develop shared programs, mentor networks, outreach activities, pitch competitions, etc.
- **Offer acceleration services as a follow-on to proposed ideation services** for identified high-growth potential startups, especially targeting cohorts to specific industry clusters and market opportunities
- **Engage with existing angel networks and individual angel investors to develop a strong pipeline** of investment-ready new venture startups

## Illustrative Best Practice Examples:

- Birmingham, AL: Innovation Depot, a 140,000 incubator/coworking space, is home for a variety of entrepreneurial and talent initiatives in collaboration with community stakeholders and UAB, including a new technology accelerator, Velocity, that invests up to \$50k in seed funding for selected startup teams.
- Charlotte, NC: Within their entrepreneurial hub, known as Packard Place, offers a network of accelerator program services including in cleantech, fintech and more general tech-based businesses
- Greenville, AL: Led by the NEXT program of the Greenville Chamber, brings a strong focus on entrepreneurial and innovation-focused small businesses, with three different facilities, including one targeted for advanced manufacturing, mentoring programs, events and other ecosystem development efforts.
- Gainesville, Florida: Multiple types of entrepreneurial hubs including Sid Martin Biotech, Florida Innovation Hub, Innovation Square and smaller incubators located near smaller high education institutions.



# Potential Priority Action: Catalyze wider range of risk capital in the region

## Rationale:

Beyond the success of Charlottesville Angel Network, **there are significant range of risk capital needs**, including:

- **Lack of lead early stage formal VC investors for high-potential startups** needing formal venture capital investments beyond \$1-\$2 million from angel investor rounds.
- **Need for access to startup capital outside of Charlottesville.**

## Possible Activities:

- **Form a regional or multi-regional seed fund** able to bridge angel investors and more formal venture capital, with ability to lead syndication at seed stage and participate in follow-on early stage rounds
- **Create a region-wide micro-loan fund targeted to traded sector startups involved in more traditional traded sector activities**, such as agriculture and food processing, other manufacturing and business services. Learn from and perhaps build upon micro-loan efforts of Community Investment Collaborative in Charlottesville area to become region-wide and offer a targeted fund for traded-sector startups coming through ideation programs and identified as high-growth potential.
- **Organize angel investors across the region** to tap broader range of deal flow coming out of the network of entrepreneurial hubs in the region and their ideation/acceleration programs

## Illustrative Best Practice Examples:

- Susquehanna, PA: Rural Business Innovation organization provides business technical assistance for accessing financing, along with a micro-loan startup grants, as well as a network of incubators near local colleges and universities (including Bucknell).
- Chattanooga, TN: Two seed funds are active in the region, Chattanooga Renaissance Fund and Lamp Post Group.
- Ohio Third Frontier: 34 pre-seed or seed funds established across regions of Ohio, capitalized at approximately \$6-\$7 million on average.

# Potential Priority Action: Strengthen networking of traded sector industry clusters

## Rationale:

- Build upon the unique needs found across the diversity of startup activities found in traded sector industry clusters.
- Engage startups more actively across the region based on their specific industry domain requirements involving customers, new product development and technology adoption, talent and workforce needs and financing requirements.
- Outside of life sciences, there is not industry-specific organizations in the region.

## Possible Activities:

- **Facilitate bringing together entrepreneurs from around the region in specific industry clusters** to learn of their interest in coming together to form an industry innovation network.
- **Allow entrepreneurs to define initial activities of industry innovation network** to support their growth and access to specific domain-focused resources, such as mentor and professional service networks, accelerator services, infrastructure development, risk capital needs, talent and workforce programs, etc.
- **Host ongoing networking activities, workshops and investor forums.**
- **With effort of Cville Biohub, need for wet lab space** is likely to be a major requirement. In Virginia, emulate Richmond's use of Virginia Biotechnology Research Authority to help finance wet lab space.

## Illustrative Best Practice Examples:

- Chattanooga, TN: Focused on targeted industry innovation networks through ongoing accelerator programming including ultra-high bandwidth business applications, consumer goods, outdoor recreation and food/beverage.
- Greenville, AL: Focused on regional opportunity with strong presence of foreign auto makers to establish International Center for Automotive Research that represents significant public/private partnership and involves a Center for Emerging Technologies. Plus, strong focus on entrepreneurial programs for advanced manufacturing through Chamber's entrepreneurial program efforts.
- Gainesville, FL: Sid Martin Biotech a 40,000 sf wet lab incubator with a strong track record of successful startups
- Raleigh-Durham: NCBioTech Center, a long-established resource supporting growth of life sciences with a historical focus on the Raleigh-Durham region. Has formed interest groups in specialized life sciences areas to pursue new opportunities and collaborative efforts, which has led to spin-off resources such as in forest biotechnology.

# Proposed GO Virginia Action: *Establish Regional Quarterbacks for Entrepreneurial Development in Each GO Virginia Region*

## Specific Activities:

- Identify opportunities and needs for regional entrepreneurial development within traded sector industries
- Ensure an implementation capacity on priority actions
- Provide a “front door” in each region for entrepreneurs to receive coordinated services among service providers

## Service Delivery Approach:

- Performance-based grants developed in consultation with each region to address priorities
- In each region, an advisory committee will be created to oversee the efforts of the regional quarterbacks
- Potential for multi-regional applications
- VRIC proposal articulates additional entrepreneurial activities that need to be coordinated with the regional GO Virginia efforts

## Budget Rationale:

- Award \$200k-\$300k per region to fund a full-time professional to serve as the regional quarterback. Funding could yet be made available in FY 2019.
- The regional quarterback would be tasked with advancing a regional strategic plan and prioritizing strategic investments, with the input from regional entrepreneurial ecosystem stakeholders, under the auspices of the GOVA Regional Boards.
- Once a regional prioritization investment plan is developed, further funding would be available in FY 2020 and thereafter to fill the gaps identified, including funding for efforts such as: EIRs, incubators, accelerators, mentor networks, etc.

---

## Comparable Best Practice Model: *Launch Tennessee*

- Supports a network of Entrepreneur Centers, located in six cities across the state that provide entrepreneurs access to a mix of support services, including: wayfinding for entrepreneurs, boot camps, mentorship, co-working space, and initial pre-seed grants.
- In 2016, Launch Tennessee made grants to its Entrepreneur Centers of \$200,000 to \$375,000 for each center. These centers serve a much smaller area than GO Virginia regions.