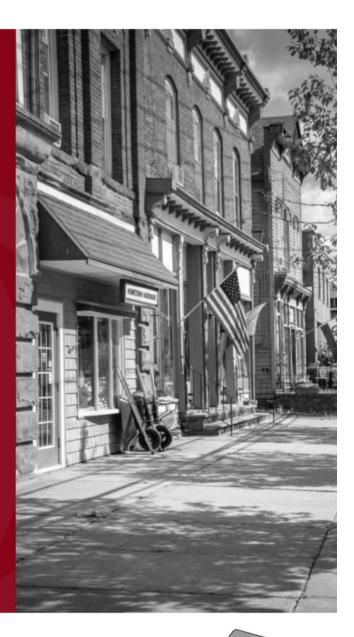
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Thrive in place

This report contains recommendations for building a robust regional entreprenuerial ecosystem in Go Virginia Region 9, right sized for the nature, culture, and concerns of each of the region's localities.



The Region

GO Virginia Region 9 localities include Albemarle, Nelson, Fluvanna, Louisa, Orange, Greene, Madison, Culpeper, Fauquier, and Rappahannock Counties, along with the City of Charlottesville.

October 2024

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The Good People Research Company extends a special thank you to **Mary Foley of Carlson Foley Enterprises, LLC** for contributing her expertise in finance, business analytics, and how entrepreneurial ecosystems work to this report.

We also want to thank the many people from our region that gave of their time and taught us what we needed to understand to produce this report. You will find their names, as well as the organizations and businesses they represent, in Appendix D.

We have some really good people among us.

Gh

Craig Honick Founder/Principal Advisor The Good People Research Company

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Executive Summary

The "Thrive in Place" report provides a comprehensive analysis of the entrepreneurial ecosystem in GO Virginia Region 9, which includes Albemarle, Nelson, Fluvanna, Louisa, Orange, Greene, Madison, Culpeper, Fauquier, and Rappahannock Counties, along with the City of Charlottesville. The report aims to identify gaps in the current ecosystem and provide recommendations for building a robust, region-wide entrepreneurial ecosystem that is tailored to the unique characteristics of each locality.

Observed Gaps:

- 1. Awareness and/or access to business support resources
- 2. Access to optimal financing options
- 3. Insufficient access to peer support and industry-specific networks
- 4. Challenges in talent acquisition, retention, and management
- 5. Insufficient support to realize the growth potential of traded and emerging sectors
- 6. Insufficient shared vision and coordinated approach for the entrepreneurial ecosystem
- 7. Underdeveloped culture of entrepreneurship and ecosystem support
- 8. Insufficient internal and external marketing (storytelling) of the region's entrepreneurial strengths and opportunities

Recommendations:

The report outlines nine key recommendations, with the first three forming the base of the ecosystem:

Recommendation 1: Create a region-wide ecosystem steering committee to develop and implement a unified vision for supporting founders and startups across targeted sectors.

Recommendation 2: Establish an ecosystem guidance committee in each locality that will guide startup policy and practice.

Recommendation 3: Expand the number of sector specific industry support organizations (peer groups) that will provide mentorship, education, community, and resource exchange.

Recommendation 4: Establish coordinated, sector specific incubators and accelerators that comprise "innovation communities."

Recommendation 5: Foster a culture of entrepreneurship and talent retention by creating robust connections between educational institutions, employment resources, and regional businesses.

Recommendation 6: Increase the capacity for SBDC, CIC, SCORE, industry focused and other ESOs to support regional businesses.

Recommendation 7: Widen founder education about and exposure to capital sources and connect more venture capital sources (VCs) with the region.

Recommendation 8: Provide education and training around the latest technology tools (such as AI, computing technologies, remote workforce management) so that the region's founders and entrepreneurs can be on the cutting edge of technology to build faster and more efficiently.

Recommendation 9: Craft and amplify a compelling narrative to promote awareness of Central Virginia's entrepreneurial ecosystem within and beyond the region.

The report emphasizes that recommendations 1 and 2 should be implemented first to ensure equitable participation in the implementation of subsequent recommendations.

By implementing these recommendations, Region 9 aims to create a robust entrepreneurial ecosystem that supports innovation and economic growth while preserving the quality of life that attracts and retains entrepreneurs in the region. The "Thrive in Place" approach seeks to balance the needs of startups and established businesses with the desire to maintain the character and lifestyle of each locality within the region.

Introduction

This report, funded by GO Virginia and led by the Community Investment Collaborative and Venture Central, outlines a Regional Entrepreneurship Investment Strategy for 11 localities in GO Virginia's Region 9, which includes the City of Charlottesville and the following counties, roughly from south to north: Nelson, Albemarle, Fluvanna, Louisa, Orange, Greene, Madison, Culpeper, Fauquier, and Rappahannock.

Observations and recommendations for the study are based on primary research conducted from September 2023 to May 2024, involving more than 400 touch points in the business community from across the region, including 95 in-depth interviews, 85 focus group participants, and a survey with 230 respondents.

The study also reviewed secondary research sources including strategic plans for each of the region's localities, a 2024 Comprehensive Economic Development Study (CEDS) for two planning districts in the region, Virginia commonwealth level initiatives that support entrepreneurs, and material detailing existing models for successful ecosystem development across the United States and select international cities.¹

This report is *not* an attempt to outline an economic development strategy for the region and its localities; rather it is an effort to identify the most optimal approach to encourage and facilitate the growth of startups and existing businesses across the region as economic engines. Ultimately, as the data and recommendations will show, the current effort is focused on how to build out a robust entrepreneurial ecosystem that works well based on the unique characteristics of each of the region's localities, and the region.

¹ See Appendix B for detail on methodology

Framework for research and recommendations

Entrepreneurship is a subset of "Economic Development" and not synonymous with it

Importantly, the focus of this report is on a regional *entrepreneurship* investment strategy, not an *economic development* strategy. What brings economic vitality to a region may or may not involve entrepreneurs (i.e., securing a data center or distribution center for a global enterprise.)

An entrepreneurial ecosystem, on the other hand, develops businesses and attracts businesses run by innovation-oriented entrepreneurs who either simply choose to locate in the region (e.g., for quality of life) or see the regional ecosystem as fertile ground in which to grow.

Entrepreneurship is centered on startups, growing businesses, and the leaders of those businesses.

Developing a "Regional Entrepreneurship Investment Strategy," or figuring out optimally where and how to invest in entrepreneurship to help grow the regional economy, is largely a process of taking what we believe to be demonstrably successful practices that support entrepreneurs and observe where and how the region might implement those practices.² Research to support this effort then focuses on:

- 1. Deciding on a "rubric" that contains the key elements that should be in place for a robust, productive entrepreneurial ecosystem;
- 2. Observing which key elements of an effective entrepreneurial ecosystem are currently in place across the region;

² These best practices can be sourced from studies of entrepreneurial ecosystems in the U.S. and internationally. See appendix for more detail on the models referenced.

- 3. Identifying where key elements may be missing or underperforming, and why (gaps);
- 4. Discerning how best practices for an entrepreneurial ecosystem could be introduced to each locality in the region in a manner that suits the nature and culture of each locality (right sizing an investment strategy).

The findings, conclusions, and recommendations found in this report are based on **observation and evaluation of information** that characterizes in each locality of the region:

- 1. The types of industries entrepreneurs are pursuing;
- 2. The types and levels of support entrepreneurs have available and are accessing (e.g., mentors, financing, incubation, acceleration);
- 3. The connection entrepreneurs currently have with information and education sources;
- 4. The connection entrepreneurs currently have with one another; and
- 5. The local and regional factors that may be spurring or inhibiting growth of ventures, including the locality's policies, culture, and quality of life narrative.

Sources for Entrepreneurial Ecosystem Models

To establish a "rubric" that assesses entrepreneurial ecosystems, we consulted three frameworks for evaluating startup ecosystems.

The three models we reviewed – Brad Feld's "Boulder Thesis" from his book *Startup Communities (2020);* the Kauffman Foundation's Entrepreneurial Ecosystem Playbook 3.0 (2019), and the ASPEN Network of Development Entrepreneurs (ANDE) Entrepreneurial Ecosystem Diagnostic Tool (2013) -- are born of efforts to analyze the anatomy of successful startup ecosystems, the latter two crafted collaboratively by professionals immersed in entrepreneurial development, synthesizing multiple studies of ecosystem success.

Ecosystem Building Models References that form a rubric for evaluation





Brad Feld's Startup Communities + "Boulder Thesis" Brad Feld is regarded as one of the leading experts on startups and founders and was instrumental in helping to build a robust ecosystem in Boulder Colorado. His writings are referenced widely by scholars, civic leaders, and founders.

Annually, the Kaufmann Foundation convenes entrepreneurial ecosystem builders from around the world for its E-Ship Summits. The Playbook reflects the evolving learning the summits gather and synthesize.

Kaufmann Foundation Entrepreneurial Ecosystem Building Playbook 3.0



ASPEN NETWORK OF DEVELOPMENT ENTREPRENEURS The Aspen Network for Development Entrepreneurs (ANDE) Entrepreneurial Ecosystem Diagnostic Toolkit The Aspen Network of Development Entrepreneurs_(ANDE) is a global network of organizations that propel entrepreneurship in developing economies. ANDE has developed a comprehensive diagnostic tool ecosystem builders can use as a reference to identify gaps and solutions. Each model is summarized in **Appendix A** - Sources for Entrepreneurial Ecosystem Models.

We ultimately decided to use the ANDE model as our main rubric for its comprehensive presentation of ecosystem elements and the relationship of the elements to one another. We reference the first two models, the Feld and Kauffman models, at relevant points throughout the report to incorporate more nuanced characterizations of ecosystem elements.

The Aspen Network for Development Entrepreneurs (ANDE) Entrepreneurial Ecosystem Diagnostic Toolkit was developed to address the need for a

comprehensive and systematic approach to evaluating and understanding the various components that contribute to a thriving entrepreneurial ecosystem. The development of the toolkit was driven by the recognition that traditional methods of assessing

entrepreneurial environments often lacked the depth and specificity needed to identify actionable insights and areas for improvement.

The creation of the toolkit involved collaboration among various stakeholders, including development organizations, policymakers, entrepreneurs, and academic institutions. This collaborative effort ensured that the toolkit incorporated diverse perspectives and expertise, making it a robust and versatile resource for diagnosing entrepreneurial ecosystems.

The toolkit has been widely adopted by entities working to foster entrepreneurial growth. Its use has spanned multiple regions and contexts, demonstrating its flexibility and applicability. It has enabled organizations to make informed decisions, prioritize interventions, and allocate resources more effectively to support the growth and sustainability of small and growing businesses.

The framework is composed of "determinants" of ecosystem performance, the results of performance, and the impact of these results. The interaction of these are shown in the figure below.

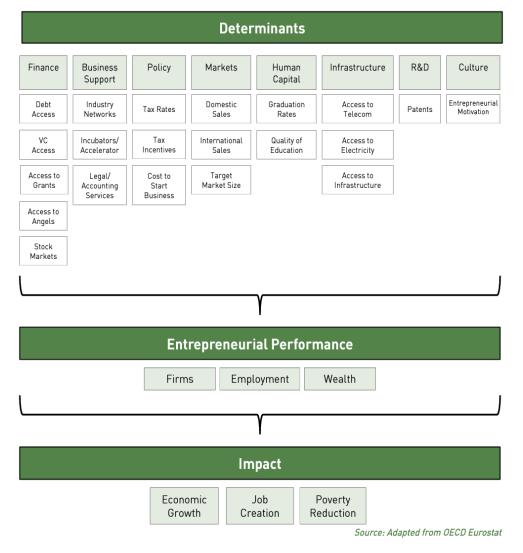


Figure II: Entrepreneurship Measurement Framework

Research Approach

Data gathering was designed to capture an insider view of startup activity to discover, validate and triangulate the entrepreneurship environment in each locality and region wide. See Appendix B - Research and Data Gathering Approach for details.

The chart below visually summarizes our approach which had over 400 informants throughout the ecosystem. Using the elements of productive entrepreneurial ecosystems found in the three models as a backdrop, the research approach for the current study focuses on learning from well positioned "informants" to paint a portrait of how entrepreneurship is functioning across each locality in the region.

Our informants for the research are all experts by nature of their positions relative to entrepreneurs in the region. The conclusions and necessity for recommendations in the following report are inferred from information provided by these informants which is then arrayed against the ANDE diagnostic tool (our rubric), as well as the Feld and Kauffman models, to reveal gaps and remedies for improving entrepreneurial growth in the region.

We also use quantitative data provided by sources such as the region's Comprehensive Economic Development Study, the U.S. Census Bureau, and county strategic plans to inform recommendations as these sources capture quantifiable information and data such as population, types of companies across the region, average pay levels, revenue levels, and job growth.



Structural Observations and Conclusions

In this section, we outline "structural observations" that emerged from our discussions with informants. To the extent that we observe gaps in a model robust ecosystem by comparing the current situation in the region to the ecosystem models introduced earlier in this report, these structural observations represent local, on the ground, nuance that will influence how we decide to shape recommendations so that they can have the greatest and most sensible impact for all regional stakeholders.

The observations allow us to place appropriate weight on gaps that may exist in the regional ecosystem so that a gap in, say, relatively dense Charlottesville City, may not be treated the same way it would in, say, rural Madison County. **A gap, and what to**

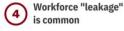
KEY OBSERVATIONS

that directly impact how the regional entrepreneurial ecosystem can be built

2

1 Lacks robust regionwide entrepreneurial ecosystem

Startups outside of UVA or certain sectors in Charlottesville/Albemarle are limited in the convening, funding, and peer support elements that are the hallmarks of robust ecosystems.



Many localities report that a high proportion of their residents travel outside the locality for work, limiting the localities' ability to capture business and tax revenue.

> Storytelling about startups is not coordinated

No central entity appears to tell the story about startup activity and successes, inside and outside of the region. Passion for "Quality of life" is key asset and challenge

"Quality of life" attracts talent and businesses and keeps them here. At the same time, in many localities, it can limit commercial and housing development, presenting a potential hinderance to growth.

Local support by



3 Local economic development offices are key ecosystem conduits

Economic development directors, along with chambers of commerce are visible onramps for local businesses to get expanded services and resources..

Local support businesses are unevenly distributed across region

Many localities lack community businesses such as convenient grocery stores, restaurants, and personal services to attract and support startup businesses.

 Industry clusters are distributed and clusters are somewhat siloed

Localities differ in the representation of traded sector companies, making it challenging to implement a uniform strategy for entrepreneurial growth.

(6)

do to address the gap, if anything, may be very different in each locality and therefore recommendations are designed to reflect the context in how they will be interpreted, socialized, and applied across the region. We explore every opportunity where multiple localities can participate in initiatives together.

Structural Observation 1: Region 9 is poised for growth with a functioning entrepreneurial ecosystem but currently has few signs of a robust version of an ecosystem region wide

Entrepreneurship is poised for growth in GO Virginia's Region 9. Each county has distinctive economic characteristics and shares the potential to benefit from a well-developed entrepreneurial ecosystem. Our findings suggest that only three of the 11 localities in the region – Albemarle, Charlottesville, and Fauquier — appear to experience most of the elements outlined in the ANDE Diagnostic Tool and, even in those cases, there are key gaps in executing them. (See Observed Gaps section below.)

Growing entrepreneurial ecosystems are often accompanied by attendant, sometimes undesired, growth in population, infrastructure and construction, potentially transforming formerly tranquil localities into newly burgeoning population centers, ultimately making what was initially attractive too unweildy.³ Given the diversity of GO Virginia's Region 9, and the largely rural nature of most of the region, a "right sized" ecosystem envisioned by the study's recommendations would attempt to control for differences in each locality while considering the advantages of encouraging collaboration across localities.

Consequently, a central assumption of the study's recommendations is that features of the ecosystem will be implemented hyper-locally, with the support of a central, regional, facilitating or coordinating entity that can supply resources proactively and on demand to localized efforts and region wide.

³ See case of Austin, TX, for example: https://sherwood.news/business/austin-tech-hub-growth-market-texas-housing/

Structural Observation 2: A commitment to maintaining "quality of life" can be both a cornerstone and challenge of building a region wide entrepreneurial ecosystem in Region 9

Not everyone has a choice of where to live; some choose to settle somewhere that's more affordable for them; others choose a place close to a job or family. Some grow up in an area and don't leave. Some have the means and the flexibility to choose precisely where they would like to live and locate there. Despite the variety of reasons why different people in a locality choose to call a place home, most communities, through their elected officials, strive to maintain a good quality of life based on what *quality of life* means to them – how they define it. Some of these definitions facilitate entrepreneurship more easily than others.

Our research clarified that quality of life is a core reason most Region 9 entrepreneurs locate and remain in the region. Of the 240 respondents to a region wide survey we conducted in January 2024, 139 were founders. We asked them why they located their businesses where they did, providing several choices to choose from. They were to choose up to three that were most important:

The following are possible reasons why you may locate your business where it is today. Choose <u>up to 3</u> from the list that are the most important reasons for you.

- Quality of life where I live and work
- Talent qualified workforce
- Favorable incentives or support from local government
- Space that is best suited for my business
- Cost of space for my business
- Support from business ecosystem (e.g., peers, advisors, business groups, meetups)
- Pool of customers for what my business offers
- Simply to work where I live
- Physical resources (e.g., land, infrastructure)
- Strategic location (e.g., near shipping, important population centers, etc.)
- Cost of running my business

| Rank | Food & Beverage Manufacturing, Agriculture, Agri-Tourism | IT/Tech + Bio Tech & Life Sciences | Business Services & Consulting | Other | |
|------|---|---------------------------------------|-----------------------------------|-------------------|--|
| 1 | Work where I live | Work where I live | Work where I live | Work where I live | |
| 2 | Space best suited | Quality of Life | Quality of Life | Quality of Life | |
| 3 | Quality of life | Cost of Space | Pool of customers | Cost of space | |

We see that "quality of life" paired with "to simply work where I live" rank highest among the choices provided. This was echoed in conversations with entrepreneurs and economic development directors with respect to why they wanted to live in the region and what they saw as a key draw for prospective talent they may wish to recruit.

We also asked company founders what support their businesses need most right now, and, again, provided some choices.

Which of the following, if any, are needs your business has right now? Select a choice or choices even if you can't presently afford them (Select all that apply.)

- Consultant to help with strategy
- Consultant to help with recruiting talent
- Financing (e.g., loan, grant)
- A peer group of founders or business owners with whom I can exchange ideas
- Skilled employees talent
- Space that is better suited to my business
- Guidance on how to get my product or service to market
- Guidance on how to sell my product or service internationally
- Guidance on how to run my business (e.g., accounting, marketing, technology)
- Guidance on how to manage my business finances
- Guidance on expanding my reach to target customers
- Guidance exploring additional markets for my product
- Guidance working with local and/or state licenses/regulations
- Other (please specify)
- None of the above

| Rank | Food & Beverage Manufacturing, Agriculture, Agri-Tourism | IT/Tech + Bio Tech & Life Sciences | Business Services & Consulting | Other |
|------|--|---------------------------------------|---|---|
| 1 | Financing, Guidance on expanding reach to target customers | Financing | Peer Group of Founders | Financing |
| 2 | Peer Group of Founders, Guidance on expanding new markets | Peer group of Founders | Guidance on reach target customers, Financing | Guidance on managing business finances |
| 3 | Talent | Talent | Guidance on expanding new markets (25%) | Guidance on expanding reach to target customers |

We note here that "peer group of founders" ranks #1 or #2 among founders in key strategic traded sectors in the region. This will become important as we discuss gaps in the current ecosystem and our recommendations; interaction among founders is a central component of a robust startup ecosystem. Organically in conversations, and expressed here in survey results, the desire to connect with and share experiences and resources with peers emerges as a critical need.

Perhaps most significantly, narratives and policies concerning population growth, housing, commercial space, and infrastructure development in each locality affect entrepreneurship, particularly with respect to the ability for founders to convene and connect. Each locality in the region has some form of protections concerning growth and land use, some more restrictive than others, but most are relatively restrictive. When land use policies are geared toward slow/no growth in population and housing, and/or commercial development is limited to a few specific, perhaps geographically disparate, zones in a county, it can be challenging for entrepreneurs operating in different parts of a county to connect, convene, model and therefore build a peer community where information and resources are readily and rapidly shared.

Most entrepreneurs, despite a common conception that they are independent "loners" and "gunslingers," are very much dependent on connection and ongoing interaction with others.⁴ Many counties in Region 9 envision quality of life as a community built around bucolic, open space, where ideally from one's home one does not need to see industry, collections of "rooftops," or likely even their neighbor's home. These localities,

⁴ See common themes of interaction in all three ecosystem building models in Appendix.

characterized by farmland, equestrian estates, wineries, mountains, waterways, tree lines, and relatively small portions of land set aside for commerce in restricted zones typically near main roadways, physically emphasize privacy and solitude. Interaction with others is by choice in local restaurants, places of worship, farmers markets, and festivals, where they exist. In some cases, residents have to travel to nearby counties or population centers for basic needs such as groceries, clothes, and other everyday items.

In other parts of the region, notably Charlottesville City, parts of Albemarle, parts of Fauquier, and increasingly, parts of Culpeper, more dense housing and concentration of businesses allows for more constant connection and exchange between founders of new ventures. In these communities, the flow of information about resources and support between founders is facilitated by proximity and a culture of mutual exchange. These more concentrated populations centers, most notably Charlottesville City with the University of Virginia[,] a top tier research university in the middle of it, have established and invested in entrepreneur support organizations (ESOs)[,] co-working spaces designed for founders, a plethora of events and networking opportunities, angel investor networks, and forms of incubators and accelerators focused on entrepreneurial ventures.⁵

Accelerating the Entrepreneurial Support "Flywheel"

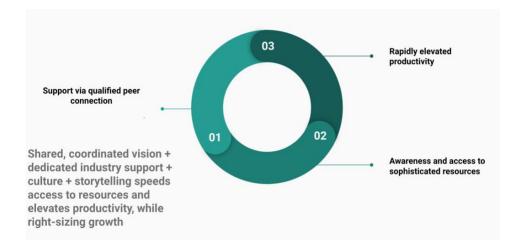
While proximity to other founders and support is not the only determinant of entrepreneurial success, there is ever growing evidence that ecosystems focused directly on supporting founders with information, resources, and connection to other founders can simultaneously accelerate the success of ventures with growth potential and weed out more quickly those that do not have the same potential.⁶ One might call this process "accelerating the entrepreneurial support flywheel." Interaction across entrepreneurs can provide the lifeblood of an entrepreneurial ecosystem and make all the other determinants function more efficiently and rapidly.

⁵ Examples include the Charlottesville Business Innovation Council (CBIC), Cville BioHub, Center for Developing Entrepreneurs (CODE), The Vault, Tom Tom Festival, UVA i.Lab, 434 Accelerator, UVA Innovates initiative.

⁶ See case studies for 9 U.S. regional ecosystems in the appendix of a 2019 report delivered by Camoin Associates, et al entitled "Venture Hub Business Plan."

https://www.centralvirginia.org/content/uploads/sites/2/2019/10/MASTER-100419-Venture-Hub-Business-Plan-1.pdf as well as the three ecosystem models referenced in this report and detailed in Appendix A.

From a local or regional economic development standpoint, this acceleration of the startup evolutionary process can mean more efficient distribution of resources and a more rapid path to revenue from outside the locality or region. Ongoing exchange between entrepreneurs breeds a subculture of entrepreneurship which not only supports those with nascent and established ventures, but also inspires others with confidence and know how to build ventures of their own or relocate in the region from elsewhere with their growing or established businesses.



So, for some localities where proximity and exchange with other entrepreneurs is relatively sparse, the ability to more rapidly inspire, accelerate and filter new ventures is inherently more limited. This begs the question: *How can the region fully assist its entrepreneurs with resources and peer communities, wherever they may choose to live, for the benefit of each locality and the region as a whole and still maintain the type of lifestyle each locality has determined it wants to preserve?*

This report outlines specific, observable gaps in the support for entrepreneurs region wide, and proposes action steps that can be taken to build a regional ecosystem that provides maximum support for the founders where they chose to live and work. **We propose a new model for an entrepreneurial ecosystem, one that intentionally enables founders to "thrive in place," and, most importantly, preserve the character of the place in which they wish to thrive**.

We propose a new model for an entrepreneurial ecosystem, one that intentionally enables founders to "thrive in place," and, most importantly, preserve the character of the place in which they wish to thrive.

Structural Observation 3: Economic Development offices are the most likely existing channel through which to promote entrepreneurship in each locality but are currently not fully equipped to do so.

Economic development offices, and in some cases, chambers of commerce, serve as the de facto touchpoints for businesses in most localities. Economic development directors we interviewed report that the entrepreneurs in most counties who are seeking assistance start with the economic development office in their county and then are referred by the office to the SBDC for "triage" in terms of mentorship and guidance. The Central Virginia SBDC services all counties in the region, except for Fauquier, which is serviced by the Laurel Ridge SBDC.

The table below illustrates how working with economic development offices, SBDC has managed to provide services to businesses across the region, relatively evenly per capita, based on the number of business establishments in each locality.⁷

| | | | | 2023 | | | |
|-----------------|---------------------|-------------------|-------------|---------------------------------|--------------------------|-----------------------|--------------------------------------|
| Locality | # of businesses* | Clients served | Hours spent | % of total clients served | % of total hrs. spent | % hours per client | Clients served/# of businesses |
| Albemarle | 2,824 | 223 | 1,287.84 | 32% | 38% | 5.78 | 8% |
| Charlottesville | 2,001 | 152 | 962.15 | 22% | 28% | 6.33 | 8% |
| Culpeper | 1,078 | 54 | 192.19 | 8% | 6% | 3.56 | 5% |
| Fluvanna | 410 | 61 | 165.7 | 9% | 5% | 2.72 | 15% |
| Fauquier | 1,917 | 64 | 283 | 9% | 8% | 4.42 | 3% |
| Greene | 373 | 26 | 119.77 | 4% | 4% | 4.61 | 7% |
| Louisa | 650 | 40 | 94.93 | 6% | 3% | 2.37 | 6% |
| Madison | 281 | 19 | 46.99 | 3% | 1% | 2.47 | 7% |
| Nelson | 367 | 24 | 122.09 | 3% | 4% | 5.09 | 7% |
| Orange | 679 | 25 | 91.65 | 4% | 3% | 3.67 | 4% |
| Rappahannock | 200 | 6 | 12.78 | 1% | 0% | 2.13 | 3% |
| Total | 10,780 | 694 | 3379.09 | 99% | 100% | 4.87 | 6% |

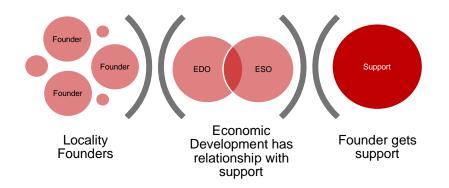
These economic development offices often focus on recruiting businesses to their localities, promoting tourism, and advocating on behalf of local businesses to get favorable zoning policies that help them get established and grow. They are mostly stretched with small offices already responding to big expectations. They are not set up, per se, to incubate and accelerate startup businesses in traded sectors and therefore have relied on the support of SBDC and other ESOs.

Ecosystem design should engage but not burden economic development offices without providing them with commensurate help. Entrepreneur led ecosystem development should, as much as possible, streamline past overburdened ED offices directly to entrepreneurs. Initially, however, economic development directors will need to assist with

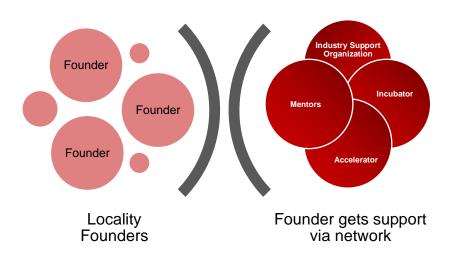
⁷ Per US Census from 2020. Some counties do not have a requirement for business license registration, so tracking the actual number and type of businesses on the part of each economic development office in each locality may be uneven.

ecosystem building by virtue of their knowledge and access to participants who will make up the **entrepreneurial stack** in their communities.

Currently, in most localities, a Founder's path and access to support looks like this:



In a more fully developed ecosystem, it may look like this:



In Charlottesville/Albemarle, well developed entrepreneur support organizations (ESOs) such as Cville BioHub, CBIC, New Hill Development, and others also serve as touchpoints and referral hubs, as do coworking spaces such as the CODE building, The Vault, and Studio IX where startup founders congregate. The same could also be said for Fauquier County, where the Mason Enterprise Center can serve as a guide for new businesses, as well as local efforts in Vint Hill to establish co-working space and a new commercial kitchen.

Structural Observation 4: Many localities experience workforce "leakage" as a high percentage of residents' travel outside the county for work, with some complementary influx of workers for certain roles.

This leakage spurs the desire to create an environment where residents are inspired to and can easily find out how to form their own businesses and not travel daily outside the locality.

In most of the Region's localities, except for possibly Albemarle, Charlottesville, and Fauquier, 60% to 80% of residents commute out of the locality for work and may rely on residents from neighboring localities for certain jobs such as teachers, firefighters, and police. Most of the localities would like to keep their resident workforce in the county each day – and spending their money – closer to home.

Many of these same localities focus on attracting existing businesses to relocate to the county that will provide more local jobs. The goal is to have these businesses located in areas that are currently zoned for business and/or repurpose buildings that may be currently vacant. Ultimately, the goal is to attract new business without transforming the scenic landscape.

The development of new, traded sector businesses through a well-articulated startup ecosystem, can create high paying jobs and bring additional notoriety to localities on which to further build tourism and other revenue sources while adding to the tax base with both new business revenue and additional local spending.

Structural Observation 5: The importance of having convenient community amenities (e.g., grocery stores, hospitals, restaurants) appears to vary across the region's residents, but appears more important to startup businesses.

Residents may use the existence of community amenities as either a sign of a solid community or a threat to the solitude of rural life. While some localities are reluctant to encourage dense commercial areas, residents also express a desire for more amenities such as restaurants, medical facilities, grocery stores, and personal care services. Having to travel far for these amenities can make it more difficult to attract talent to the area unless the talent has a penchant for more isolated, rural life. Suffice it to say that the tension between having amenities and keeping communities sparse and rural can be a factor in planning for a startup ecosystem.

Structural Observation 6: Storytelling about the startup environment in the region is not coordinated, hindering awareness of resources and the development of an entrepreneurial culture.

As our findings make clear, the region's resources for supporting entrepreneurs is not only concentrated in certain parts of the region, so is the awareness of these resources to a large extent, and therefore the ability for the region to build a culture of entrepreneurship is hindered. With the possible exception of promotion of the region's wine industry which has received recent high-profile attention,⁸ the bulk of storytelling around startup activity has come from the Charlottesville/Albemarle subregions, and largely through the media efforts of UVA, Cville BioHub and the Charlottesville Business Innovation Council (CBIC).⁹ Some

⁸ Charlottesville and the Monticello American Viticultural Area (AVA) was Wine Enthusiast's 2023 Wine Region of the Year,

⁹ CBIC emails a newsletter to more than 5000 subscribers and operates The Hub CVA, an online

storytelling about Virginia as a whole¹⁰ by nature may accrue to the region's reputation for business. And some counties themselves are trying to promote innovation.¹¹

But from an identity standpoint, the region lacks coordinated marketing that builds a narrative that is a place where innovation and entrepreneurship are prized.

Structural Observation 7: The Region's industries are varied and in large part concentrated in respective localities.

Weaving together what we heard and observed through these interactions, we find that we can map certain types of entrepreneurs and types of ventures to localities where they are the dominant type of industry, at the same time identify the elements that one could consider when planning support for the ventures' founders.

All types of entrepreneurs can be found in nearly each locality – Tech, Agriculture/Food and Beverage Production, Tourism, Manufacturing, and Business/Financial Services. That said, while life science ventures may exist in limited

form elsewhere, it, along with tech – as well as clean energy and deep tech – is concentrated in the Charlottesville/Albemarle subregion. Food and Beverage production, Agriculture, and Manufacturing is in large part spread across the region and are the dominant industries outside of the immediate Charlottesville City area. Fauquier County has clusters of tech and deep tech owing to its population and proximity to Washington DC and the defense industry.

Because of this, different localities may to this point and going forward have different priorities in sourcing and supporting founders and startups.

¹⁰ CNBC rated Virginia "Best State for Business" in 2024.

¹¹ See "Culpeper Technology Zone Cultivates an Innovation Ecosystem:"

https://livabilitymedia.com/culpepers-technology-zone-cultivates-an-innovation-ecosystem/

Observed Gaps in Region 9 Entrepreneurial Ecosystem

If the region's entrepreneurs are to be fully supported where they must live or choose to live, and the region's localities continue to embrace the quality of life they have set out for themselves, it's essential to identify the gaps that exist in what would be a robust, rightsized, and region wide entrepreneurial ecosystem, and attempt to address those gaps.

The table below presents the determinants developed as part of the ANDE Entrepreneurial Diagnostic Tool discussed at the outset of this report. The determinants are arrayed here in such a way that they present examples of the determinants for a comprehensive view of what robust startup ecosystems require.

| Direct | | Partially Dire | Indirect | | | | |
|--|--|------------------------|-------------------------------|-------------------------------------|--|--|------------------------------|
| Finance | Support | Policy | Markets | Human Capital | Infrastructure | Research & Development | Culture |
| Banks | Incubators | National Government | Domestic Corporations | Universities | Electricity providers | Public Research Centers and Laboratories | Media |
| Venture Capital | Accelerators | State Government | International Corporations | Technical Training Institutes | Transport providers | Private Research Centers and Laboratories | Government |
| Angel Investors | Industry Associations / Networks | Local Government | Consumers | High Schools | Communications (Mobile, internet) | | Schools |
| Foundations | Legal services | | Distribution Networks | Community Colleges | Other utility providers (gas, water) | | Professional Associations |
| Microfinance Institutions | Accounting Services | | Retail Networks | | | | Social Orga- nizations |
| Public Capital Markets | Technical Experts / Mentors | | Marketing Networks | | | | |
| Development Finance Institutions | Credit Rating Agencies | | | | | | |
| Government | | | | | | | |

Table II: Entrepreneurial Ecosystem - Domains for Analysis

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Gaps Observed

Below we outline the gaps we observed in our work with the region's entrepreneurial stack professionals in position to know what takes place in their localities. We list them below and elaborate on them over the following pages.

- 1. Awareness and/or access to business support resources
- 2. Access to optimal financing options
- 3. Insufficient access to peer support and industryspecific networks
- 4. Challenges in talent acquisition, retention, and management
- 5. Insufficient support to realize the growth potential of traded and emerging sectors
- 6. Insufficient shared vision and coordinated approach for the entrepreneurial ecosystem
- 7. Underdeveloped culture of entrepreneurship and ecosystem support
- 8. Insufficient internal and external marketing (storytelling) of the region's entrepreneurial strengths and opportunities.

GAPS in current regional entrepreneurial ecosystem

Awareness of

Despite the region's rich

entrepreneurial support

connection, to these

Attracting and

keeping talent Attracting and keeping talent

is a challenge for most industries in the region, as

larger metro areas that have

more amenities and backup

Shared vision for

No coordinated entity exists that

is charged with and supported in

guiding entrepreneurship across

nature, culture, and concerns of

the region, integrating the

each locality.

region

employment opportunities

they are competing with

resources.

(4)

(6)

existing resources

Access to optimal financing options

The region lacks a VC presence. Angel groups and resources, startup founders most family offices are in most localities lack direct limited to parts of the region. awareness, and therefore Banks are not oriented to help startup companies in traded sectors.



Professional peer support (3) in many rural localities

Most localities lack a variety of industry-focused peer groups that regularly convene, share information, education and resources.

(5) **Traded sector support**

Incubators, accelerators and experienced funders are lacking for main traded sector industries and, where they do exist, they are in a nascent stage.



Culture of (7) entreprenuerthip

In most localities, no mechanisms are in place to foster and normalize a culture of entrepreneurship and the opportunities it can bring.

Internal and external 8 storytelling

No cohesive storytelling has been developed to support the region's entrepreneurial ecosystem, Various industries like biotech, tech, and wine in cases have promoted themselves, but not the region as a startup ecosystem



Gap 1: Awareness and/or access to business support resources

Despite the region's rich entrepreneurial support resources, startup founders in most localities lack direct awareness, and therefore connection, to these resources, hindering their ability to start, grow, and sustain traded sector startup businesses effectively.

An important exception to this appears to be the SBDC and CIC, which, through outreach, has provided support across its region relatively proportionately based on each locality's number of business establishments.¹² Also, as pointed out, many businesses do connect with resources if they contact their local economic development office and/or chamber of commerce, or an established ESO, and are referred.

But the complement of services necessary for a robust entrepreneurial ecosystem cannot be fulfilled by the SBDC or the CIC under their current charters and capacity. These organizations are attempting to fill a vacuum of support that could be supported or provided by distributed industry organizations and mentors.

The ANDE model categorizes business support resources as including the following:

- Industry Networks
- Incubators/Accelerators
- Legal/Accounting Services
- Business mentors
- Technical experts

Additionally, the Feld and Kauffman models also include the following key elements that both enable these resources to get to the entrepreneurs who need them and facilitate the acceleration of the process by which startup companies are identified, filtered, incubated, and accelerated.

- Intersections to exchange, shared resources between entrepreneurs
- Onramps to get businesses started and position them

¹² See table of CVSBDC's service reach on page 18 above.

What form do these elements currently take across the region?

Industry Networks

Most are concentrated in Charlottesville/Albemarle and Fauquier, with some organic groups in other areas, which are primarily designed to collectively enhance tourism.

Incubators/Accelerators

Incubators are formal organizations set up to foster the growth of startup businesses, often before they have a marketable product of any kind. The incubator is often staffed with experienced entrepreneurs and business professionals who provide mentorship, education, access to resources. Incubators often provide a stipend of some kind to help founders get started or build an important dimension to their offerings. Accelerators provide many of the same supports at a higher level, and typically engage with startups once they have a minimal viable product (MVP) and some traction in the marketplace. The goal of the accelerator is to move ventures forward as rapidly as possible once they show promise.

Two incubators exist in the region; one, the iLab, is housed within the University of Virginia that serves entrepreneurs tied to the university in some way – students, faculty, alumni. The other, the Mason Enterprise Center in Fauquier, is under financial pressure and needs additional funding as of the writing of this report. One accelerator exists in the region – 434 – located in Charlottesville and is focused almost primarily on tech, life science, and deep tech ventures.

There are several commercial kitchens located in the region that could be considered incubators as they provide some mentorship in addition to a facility where food and beverage manufacturers and catering businesses can produce their products. These include Carver kitchen in Culpeper, BEACON in Charlottesville, and now a new test kitchen in Vint Hill. While these kitchens currently offer startup food businesses the ability to develop and produce food products, they appear to lack full support for developing, refining, funding and promoting scalable food product businesses.

Another notable program is the CIC program - a 16-week Entrepreneur Workshop for new entrepreneurs for entrepreneurs seeking to improve their business or pivot. This program offers incubation in the region, mainly for community-based businesses, as opposed to those poised to scale into traded sector ventures.

Legal/Accounting Services

Legal and accounting services exist – the largest ones, and one most familiar with startups, are located in the more densely populated areas of Charlottesville, Albemarle and Fauquier. If the startup ecosystem were to grow significantly in the more rural counties of the region, the firms located in these areas can likely address the demand for their services.

Business Mentors and Technical Experts

Mentoring as well as business and technical expertise devoted to helping startups exists primarily in two locations in the Region: Charlottesville/Albemarle in the form of the Community Investment Collaborative (CIC) and the Central Virginia Small Business Development Collaborative (SBDC) and Fauquier in the form of the Mason Enterprise Center (MEC) and the Laurel Ridge Small Business Development Center. Cville BioHub and UVA Licensing and Ventures Group, both located in Charlottesville, offer some limited mentorship and expertise to members as they maintain "entrepreneurs in residence."

CIC and SBDC have made efforts to expand their services as far as possible into the region, providing monthly office hours in multiple localities. When asked about the availability of mentoring and expert services, economic development directors outside of Charlottesville/Albemarle refer to CIC and SBDC as the providers available.

SCORE is also a resource for mentoring and technical expertise. The Central Virginia chapter, located in Charlottesville, serves most of Region 9 counties, except for Fauquier and Rappahannock. SCORE offers free mentorship, webinars, and occasional live events. The Central Virginia SCORE website indicates that 25 mentors are available for the region.¹³

¹³ See https://www.score.org/centralvirginia/about-score-central-virginia

Where gaps exist appear to be a combination of geography, industry cluster distribution, and policies that keep localities predominantly rural. The less dense the community, the less opportunities for convening, and for the advantages of onramps and intersections highlighted by the Kauffman model.

Gap 2: Access to optimal financing options

While Albemarle and Charlottesville host two established Angel investor networks – The Charlottesville Angel Network (CAN) and CAV Angels, no Venture Capital Firm (VC) is located in the Region. CAV Angels also focuses its investment into founders who have a tie to UVA.

In recent years, efforts have grown to attract the attention of and build relationships with VC's in other regions and states, and technology has enabled greater ability to connect with and share with VCs. Many Charlottesville-based tech and life science companies have also secured significant funding from outside the region and/or Virginia.¹⁴ Finally, CIC, as a CDFI, does offer microfinance but this is not at the level many growing ventures might seek, such as advanced seed and Series A or B financing.

There are a couple family offices in the region that support local startups – The Felton Group and Manning + Company, and the Galant Challenge sponsored by UVA can connect challenge winners with funds.

While state and federal funds are available, most businesses we engaged with are not fully aware of them: VSBFA, SBA, Foodshed Capital, Dirt Capital, USDA or other specialized sources of capital, including the increasing number of grants for target or special business and demographic profiles. Banking options are also diverse and often unknown. Considerations for growing businesses and local businesses must take into account

¹⁴ See, as examples, Arlington Capital Partners investment in Afton Scientific:

https://arlingtoncap.com/news/arlington-capital-partners-announces-majority-investment-in-aftonscientific/; Symrise AG investment in Bonumose: https://www.vabio.org/charlottesville-healthy-sugarinnovator-bonumose-raises-2m/; , Contraline's Seriea A raise from Rhia Ventures, ShangBay Capital, Founders Fund, Metaplanet Holdings, Graphene Ventures, Smith Ventures, Jaffray Woodriff, and Jason Calacanis; https://www.businesswire.com/news/home/20211020005058/en/Contraline-Closes-10.7-Million-Series-A-Financing-to-Become-a-Clinical-Stage-Company.

professional, accessible bankers with the right tools at the stage and in the industry of the business.

As an ecosystem component, the region lacks both robust funding sources and a general culture where knowledge of and access to different levels of capital is widespread and commonplace.

Gap 3: Insufficient access to peer support and industry-specific networks

Due in large part to the rural nature of most localities in the region, and to the geographic concentration of industries like tech and biotech that have traditions of heavy interaction and networking, there is a lack of peer support groups for most startup founders. Charlottesville, which is more densely populated, has entrepreneur support organizations like CBIC and Cville BioHub as well as UVA, and therefore offers more opportunities for founders to meet and learn from one another.

In some instances, such as the 231 LLC in Orange and Madison Counties, and the 151 organization in Nelson County, groups within industries have joined together for comarketing efforts, but also resource sharing and peer support. As mentioned, test kitchens in Charlottesville, Culpeper, and Fauquier serve as forms of industry peer networks, and co-working spaces that have emerged in Vint Hill, Warrenton, and Culpeper serve at least as opportunities for founders to connect. However, the bulk of co-working participants in most rural areas of the region appear to be using the facilities for offices and are not necessarily supported to create innovation-based, traded sector startups out of these environments.

Gap 4: Challenges in talent acquisition, retention, and management

Difficulty in recruiting and developing talent is a core issue for most startup entrepreneurs with whom we spoke. University provides graduates who may be too inexperienced or those whose degrees offer them opportunities to seek greater pay and career benefits in cities like New York, Washington D.C., and San Francisco. On a micro level, many localities claim they find it hard to retain employees in cases where they can travel a reasonable distance to another county and make significantly higher pay.

One advantage in recruiting talent from outside the region, as pointed out earlier in this report, is that the quality of life in the region is appealing to many prospects.

Organizations such as Tech Link promote the idea of remaining in the region to UVA students, and efforts on the part of organizations such as CBIC to expose high school students to regional tech firms, help to educate students about their opportunities locally. Universally, however, whether it is farming or app development, getting the right talent in the region is challenging by all reports.

Gap 5: Insufficient support to realize the growth potential of traded and emerging sectors

As a consequence of several ecosystem gaps combined, the region as whole lacks adequate industry networks, incubators, and accelerators to target and grow many traded and emerging sectors. While Charlottesville and Albemarle have some of these in place, its incubator, the iLab is limited to those with UVA affiliation, and its accelerator, 434, is focused on Charlottesville innovation-based businesses. The remainder of the region, as well as startups in manufacturing; agriculture, food and beverage development; and business and financial consulting lack this type of support and growth infrastructure altogether.

Emerging regional sectors such as clean energy and defense have some industry groups with which to work. While they also have companies clustered near one another in most cases, a true coordinated incubator and accelerator for each does not exist.

Gap 6: Insufficient shared vision and coordinated approach for the entrepreneurial ecosystem + Gap 7 Underdeveloped culture of entrepreneurship and ecosystem support

No central body or effort exists to establish and manage a shared vision for the region; likewise, no central effort coordinates a culture of entrepreneurship and ecosystem support across media, government, education, and business.

The consequence is that the region's relationship with startups and innovation is popping up where it can, somewhat haphazardly and organic. While the region boasts some significant success stories (e.g., WillowTree, Rivanna Medical, etc.) and some luminary companies in technology and biotech, a lack of ecosystem vision and leadership renders the ecosystem inefficient and underperforming for all stakeholders. Beyond ineffectiveness, a leaderless, visionless ecosystem can lead to tension between the interests of different localities as efforts in neighboring localities may have unintended consequences in terms of land use, traffic, pay gaps, and tourism.

Gap 8: Insufficient internal and external marketing (storytelling) of the region's entrepreneurial strengths and opportunities

Mostly as a consequence of the gap in vision and leadership outlined above, the region lacks a cohesive narrative around innovation and startups that would both inspire new startup activity and attract innovative startups to the region. While the wine industry in the region has received significant attention, and while VCs indicate they are paying more and more attention to the region for tech and biotech investments, most observers are hard pressed to point to a concerted effort to tell the story of the region as fertile ground for innovation and startup activity. This could change as the region invests in itself and grows a cohesive ecosystem; still, then it would require a focused, funded marketing and storytelling effort in order to complete the making of a robust ecosystem.

How gaps are related to one another

As we move into making recommendations for a region-wide entrepreneurial investment strategy, we discuss how addressing certain gaps will impact the ability to address others. This suggests both an order and priority to a plan to address gaps.

The observation that the region and individual localities lack a cohesive vision for how to encourage, identify, filter, and grow scalable, traded sector startups negatively influences the ability to close the other gaps observed.

If the region's leaders – both business (entrepreneurs) and governmental – develop a focus on how to develop startups in traded sectors, and align policies and storytelling to match that vision, it paves the way for the startup community to develop and flourish. Policies and storytelling establish cultural norms, and norms in turn guide perception, motivation and behavior.

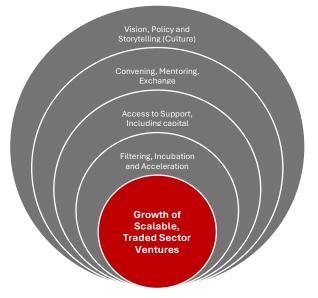
Government leaders are focused on general economic development, without a specific strategic plan for entrepreneurial development. Entrepreneurial development, as previously stated, requires a long-term commitment and encourages scalable, innovative new ventures that require a different kind of support than established businesses and/or businesses that are focused on local markets (e.g., restaurants, personal care, trades, etc.), whether relocated or homegrown.

In an environment that demonstrably supports building an entrepreneurial ecosystem, the notion of inspiring and facilitating the ability for startup entrepreneurs to innovate, fail fast, convene and exchange experiences and resources takes on immediacy and purpose. The importance of *onramps* and *intersections* whereby entrepreneurs can learn, and sense community cannot be overstated. This starts with a vision that includes the patience to encourage scalable, traded sector startups and a clear understanding of how policies and storytelling inform startup founders both in terms of accessing support but also a sense that support is part and parcel of the region's vision.

To illustrate the importance of this need to have a coordinated, dedicated vision, we can look to the pan-university entrepreneurship effort recently launched by UVA.¹⁵ The University, an organization literally devoted to research and innovation, realized that a lack of vision and storytelling around entrepreneurship limited the University's ability to expand entrepreneurship beyond programs in Darden (iLab); the engineering school, McIntire School of Commerce, and the medical school. Events like the E-cup and the Galant Challenge have encouraged startups for some time, but the University realized it needed to stimulate a startup mentality across grounds. This year the iLab involved students from across the multiple schools as well as alumni, and faculty.¹⁶

When founders convene, exchange information and support one another, they naturally accelerate the spread of information about support resources, including access to capital.

As more startup entrepreneurs get the knowledge, support and capital they need to experiment and move their ventures forward, more promising ventures emerge and will benefit from the mentoring, infrastructure and capital infusion from incubators and accelerators.



¹⁵ See https://uvaentrepreneurship.substack.com/p/welcome-to-uva-innovates

¹⁶ See https://www.darden.virginia.edu/batten-institute/ventures/profiles

The visibility and success of ecosystem elements like this inspire others to innovate and move their ideas forward and provide existing ventures the means to preserve and grow. Ultimately, the activity provides ample content for storytelling which further promotes the resources available to founders and invites potential founders from outside the region to locate in the region and bring their innovations with them

Examples of how the entrepreneurial ecosystem works, and could work, in the region

There are many examples of how the current ecosystem has worked for startup founders, highlighting the benefits of enhancing the ecosystem and the potential detriment to the region of neglecting to do so. Below are some selected instances to illustrate both how ecosystem elements function in the region and how strengthening the ecosystem may have a profound impact by extending the region's resources to many more current and potential founders.

Resources through Convening

First, we review a few of the examples (not an exhaustive list) where convening takes place regularly in the region and how it has accelerated the "flywheel" whereby founders get support more quickly as a result of networking opportunities, what the Kauffman Foundation Entrepreneurial Ecosystem Building Playbook calls "onramps and intersections."

CE2

CE2, short for "Entrepreneurs and Espresso" is a monthly event that has been running continuously since 2015. A two-hour event that is held the third Tuesday of every month, CE2 features a rising entrepreneur who makes a presentation and submits an "ask" to the audience, as well as a seasoned entrepreneur who delivers a "crash and learn" talk. There is time for networking before and following the presentations. Coffee is available. The event originally was held at the iLab at UVA and is currently held in the Irving Theater at the Center of Developing Entrepreneurs (CODE) building in downtown Charlottesville. The

event is sponsored by the Charlottesville Business Innovation Council (CBIC), the Community Investment Collaborative (CIC) and the Central Virginia Small Business Development Center (CVSBDC).

Over the years, hundreds of local founders have benefited directly from presenting their companies and getting feedback and connections from more experienced business professionals, and thousands more have benefited from making connections and learning about opportunities and resources from fellow attendees, as well as the CIC, SBDC, and CBIC representatives who have information tables set up at the event. Finally, attendees are invited to announce if they are hiring or have events of their own to promote. CE2 is open to anyone who wants to attend the event, held from 8AM-10AM. More information can be found at cvilleinnovation.org.

CBIC Tech on Tap

CBIC holds a networking event the second Tuesday of every month at a local Charlottesville restaurant. This event has become a tradition for local entrepreneurs, both in and outside the tech sector. An informal gathering, it lasts for about two hours and is often sponsored by a company, a representative of whom makes a brief presentation and offers information for attendees.

Many local entrepreneurs have found employees at this event, and attendees have found leads on jobs and learned about other resources and events available to them. More information can be found at cvilleinnovation.org.

CODE

The Center of Developing Entrepreneurs (CODE) building is an office building on the Downtown Mall in Charlottesville, opened in 2021. It contains modern offices and office suites much like any office building but features a two-story wing dedicated to co-working. The facility also has a theater, large open spaces, and an atrium, all designed to house local events. The CODE building was designed expressly to encourage "collision" between entrepreneurs – a mini ecosystem to speed access to resources and peer support. Entrepreneurs can pay a fee to gain entry to the co-working space or can pay for a dedicated desk or small office. The space is designed to encourage meeting and collaboration, as well as the cross-fertilization of companies and service providers.

Industry Support Models

Cville BioHub

Cville BioHub plays a pivotal role in strengthening the entrepreneurial ecosystem in Charlottesville, Virginia, by serving as a central connector and resource for the region's burgeoning biotech and life sciences community. The organization fosters collaboration among startups, established companies, researchers, and investors through networking events, educational programs, and access to shared resources. By promoting innovation and facilitating partnerships, Cville BioHub helps accelerate the development and commercialization of cutting-edge technologies and therapies. Additionally, it advocates for the local biotech sector, attracting talent and investment to the area and contributing significantly to economic growth and job creation in Charlottesville.

The Charlottesville Business Innovation Council (CBIC)

The Charlottesville Business Innovation Council (CBIC) is a vital force in nurturing the entrepreneurial ecosystem in Charlottesville, Virginia. As the region's leading advocate for technology and innovation, CBIC supports local entrepreneurs through a variety of initiatives, including educational events, mentorship programs, and networking opportunities. The council's efforts are focused on fostering a vibrant community where startups and established businesses alike can thrive. By organizing events like the CBIC Awards Gala and Tech Tour, CBIC highlights local success stories, promotes collaboration, and inspires innovation across industries. Additionally, CBIC works closely with local government, academic institutions, and other stakeholders to create a supportive environment that attracts and retains talent, drives economic growth, and positions Charlottesville as a hub for innovation and entrepreneurship.

Route 231

231, LLC (Route 231) supports the food, beverage, and tourism industries in Orange, Madison and Albemarle counties. Founded by local business owners and named after Route 231 that runs through part of the region, the organization understands the unique potential of the region's culinary and tourism offerings and works closely with entrepreneurs to enhance their business models, improve operational efficiencies, and expand their reach. Whether it's a farm-to-table restaurant, a local winery or brewery, or a tourism initiative, 231 LLC is dedicated to fostering an exchange of ideas and resources among businesses and promoting the region's appeal to tourists. Their efforts contribute to the vibrancy of the local economy, attract visitors, and strengthen the counties' reputations as destinations for high-quality food, drink, and unique experiences.

From their website:

Central Virginia has a well-deserved reputation for producing a deliciously broad selection of fresh fruits, vegetables, meats, cheeses, and more. With this abundance of top-quality ingredients, it is no wonder that so many <u>skilled chefs</u> call this area home, paying tribute to our culinary heritage. Paired perfectly with Virginian cuisine, our region also boasts a wide variety of drink. From the handcrafted wines of our award winning <u>farm wineries</u>, to carefully <u>brewed</u> <u>beers</u>, complex <u>distilled spirits</u>, traditionally inspired <u>Virginia ciders</u>, and boutique <u>honey mead</u>, the Route 231 trail is home to something for everyone. We invite you to visit, relax, <u>stay the</u> <u>night</u>, and enjoy all that we have to offer.

Nelson 151

Like Route 231, Nelson 151 is an organization consisting of businesses in the food and beverage industry that collaborate to promote tourism and product success for the businesses along Route 151 in Nelson County.

A collective of craft beverage producers, including wineries, breweries, cideries, and distilleries, located along the scenic route in Nelson County. This association works collaboratively to market the area as a premier destination for craft beverage tourism, highlighting the unique offerings and experiences available along the trail. By organizing events, providing visitor information, and engaging in joint promotional efforts, the Nelson

151 Association aims to attract both local residents and tourists to explore and enjoy the vibrant community of artisans and the natural beauty of the Blue Ridge Mountains. Their efforts help to enhance the visibility and economic impact of the businesses along Nelson 151, contributing to the growth and sustainability of the region's tourism industry.

Connection to Mentorship

iLab

The mission of the UVA i.Lab is to foster innovation and entrepreneurship within the University of Virginia community and beyond. By providing resources, mentorship, and a collaborative environment, the i.Lab aims to empower students, faculty, and community members to transform their ideas into viable businesses. The i.Lab offers a program designed to support entrepreneurs at the earliest stages of their journey. Through its efforts, the UVA i.Lab seeks to cultivate a culture of innovation, drive economic development, and create positive social impact by helping new ventures grow and succeed.

434

The 434 Accelerator is a program designed to support high-potential startups in Central Virginia, particularly those with the potential to scale and make a significant economic impact. Named after the local area code, the 434 Accelerator provides participating companies with access to mentorship, funding opportunities, and a robust network of industry experts and investors. The program focuses on accelerating the growth of early-stage companies by offering intensive coaching, strategic planning assistance, and connections to resources that can help them overcome common challenges faced by startups. The 434 Accelerator is committed to fostering innovation and entrepreneurship in the region, helping local startups to thrive and contribute to the broader economic development of Central Virginia.

SBDC

The Central Virginia Small Business Development Center (CV SBDC) provides a comprehensive range of services designed to support small businesses at every stage of development, from startup to growth and expansion. Their services include one-on-one business advising, where experienced counselors offer personalized guidance on business planning, financial management, marketing, and operations. The CV SBDC also offers educational workshops and training sessions on a variety of topics relevant to small business owners, such as digital marketing, legal considerations, and funding strategies. Additionally, the center assists entrepreneurs in navigating the process of securing loans, grants, and other forms of financing. By offering these resources and support, the CVSBDC helps local businesses overcome challenges, seize opportunities, and achieve long-term success in the Central Virginia region.

CIC

The Community Investment Collaborative (CIC) in Charlottesville is a nonprofit organization dedicated to empowering entrepreneurs and small businesses, particularly those from underserved communities. CIC offers a comprehensive range of services to support business development and growth:

- 1. Entrepreneurship Education: CIC provides an intensive, 16-week entrepreneurial training program designed to equip aspiring entrepreneurs with the knowledge and skills needed to start and manage a successful business. The curriculum covers topics such as business planning, marketing, financial management, and operations.
- 2. Business Lending: CIC offers microloans to entrepreneurs who may have difficulty accessing traditional financing. These loans are typically used for startup costs, working capital, equipment purchases, or inventory. CIC also provides guidance on financial planning and loan management.
- 3. Mentorship and Coaching: Through its extensive network of experienced business professionals, CIC offers personalized mentoring and coaching services. These mentors help entrepreneurs navigate challenges, refine their business strategies, and make informed decisions.

- 4. Ongoing Support and Networking: CIC fosters a strong community among its graduates, providing opportunities for continued education, networking, and collaboration. This includes access to workshops, peer support groups, and other resources designed to help businesses thrive.
- 5. Resource Connections: CIC helps connect entrepreneurs with local resources, such as legal assistance, accounting services, marketing experts, and more. They act as a bridge to a variety of community partners who can provide additional support.

Through these services, CIC aims to create economic opportunity and build a vibrant, inclusive local economy by supporting the growth and success of small businesses in the Charlottesville area.

SCORE

Central Virginia SCORE helps businesses by providing free, confidential mentoring and educational services to entrepreneurs and small business owners. As part of a national nonprofit organization, Central Virginia SCORE connects clients with experienced volunteer mentors who offer personalized guidance on a wide range of business topics, including business planning, marketing, financial management, and strategic growth. In addition to mentoring, SCORE offers workshops and webinars that cover essential skills such as digital marketing, business strategy, and funding options. Whether it's a new startup or an established business looking to expand, Central Virginia SCORE equips entrepreneurs with the knowledge, tools, and support they need to overcome challenges and achieve their business goals, fostering a thriving small business community in the region.

ICAP

The Innovation Commercialization Assistance Program (ICAP) in Virginia helps companies by providing expert guidance and resources to accelerate the commercialization of their innovative products and technologies. ICAP offers a structured program that includes free, one-on-one mentoring from experienced business advisors, access to a network of industry experts, and tailored educational workshops focused on customer discovery, market validation, and business model development. The program is designed to help entrepreneurs refine their value propositions, understand market needs, and create effective go-to-market strategies. By supporting companies through these critical early stages, ICAP helps startups and small businesses reduce risk, attract investment, and successfully bring their innovations to market, ultimately driving economic growth and job creation in Virginia.

BEACON Kitchen Pilot and BEACON Kitchens

BEACON's shared-use kitchen will be a licensed commercial space with industry grade equipment available for culinary entrepreneurs and business entities to commercially prepare or handle food that will be offered for sale or distribution. The kitchen will be able to accommodate at least 16 people working at a time. Food entrepreneurs will have 24hr/7 day per week access to our 10,000 sq. ft fully equipped, shared-use commercial kitchen for rent on an hourly basis or monthly membership. The kitchen will promote knowledge sharing, innovation and collaboration throughout the local food ecosystem.

Carver

Carver Kitchen, located in Culpeper, Virginia, is a community-driven initiative with the mission to support local food entrepreneurs and promote sustainable, locally sourced food production. Operating as a shared-use commercial kitchen, Carver Kitchen provides aspiring and established food businesses with access to affordable, professional-grade kitchen space, as well as resources and mentorship to help them grow and succeed. The kitchen is part of a broader effort to revitalize the local economy by fostering entrepreneurship, particularly among small-scale producers who may not have the resources to invest in their own facilities.

Since its inception, Carver Kitchen has achieved significant accomplishments in the Culpeper community. It has become a vital resource for local food businesses, enabling them to scale their operations and bring diverse, high-quality products to market. The kitchen has supported a wide range of food entrepreneurs, from caterers and bakers to specialty food producers, helping them navigate the challenges of starting and running a business. In addition to providing physical space, Carver Kitchen offers educational workshops and networking opportunities, further contributing to the success and sustainability of its clients.

Through its efforts, Carver Kitchen has played a key role in strengthening the local food ecosystem in Culpeper, fostering economic growth, and supporting the community's health and well-being by promoting access to fresh, locally produced food. Its impact is evident in the success stories of the businesses it has nurtured, many of which have grown to become staples in the local food scene. Among Carver's current users are Culpeper Cheese Company, Grandpa Foods, Clean Fit Nation Meals, Muff's Sweet Treats, and Jerkmo Chicken.

Established Sources of Funding

Charlottesville Angel Network (CAN)

CAN is an established angel investor network based in Charlottesville that provides earlystage funding to startups in the region. It connects accredited investors with promising local ventures, offering capital and mentorship to help companies grow.

Cav Angels

Cav Angels is an angel investment group associated with the University of Virginia alumni network. It focuses on providing seed and early-stage funding to UVA-affiliated startups and entrepreneurs, *leveraging* the expertise and connections of UVA graduates.

Family Offices

Several family offices in the region, such as The Felton Group and The Manning Family Foundation, provide private capital to support local startups. These family-run investment firms offer an important source of early-stage funding for entrepreneurs in Central Virginia.

Virginia Innovation Partnership Corporation (VIPC)

VIPC is a state-funded organization that offers early-stage funding and support to Virginiabased (technology) startups through programs like the Commonwealth Commercialization Fund. It plays a key role in seeding innovative ventures across the state.

Virginia Economic Development Partnership (VEDP)

VEDP provides various resources and programs to support business growth in Virginia, including some funding opportunities for startups and small businesses looking to expand or relocate in the state.

Community Investment Collaborative (CIC)

CIC is a nonprofit organization that provides microloans and business education to underserved entrepreneurs in the Charlottesville area. As a certified Community Development Financial Institution (CDFI), CIC offers an important source of capital for small businesses that may not qualify for traditional bank loans.

Examples of Companies Emerging in the Regional Ecosystem

The Region 9 entrepreneurial ecosystem has nurtured several successful startups across various sectors. In the tech industry, companies like Perone Robotics, Astrea, Virginia Diodes, Lumin, and WillowTree, have high profile strides. Apex and SunTribe Solar have established a critical mass in the clean energy space. The biotech, med tech, and life science sectors have seen the emergence of innovative firms such as Contraline, Bonumose, and Agrospheres, and the more established Afton Scientific and Bio Cat. In business and consulting, Fauquier-based Sparc Research has established itself as a notable player. The food and beverage manufacturing sector has flourished with companies like Virginia Bison, Hudson Henry Baking Co., and Devils Backbone making their mark. The presence of these diverse companies underscores the vibrant and thriving startup landscape in the region.

To better illustrate the impact and journey of startups in this ecosystem, let's explore the stories of five companies that exemplify the success fostered by the regional entrepreneurial support structure:

Luminoah

Neal Piper is the founder and CEO of Luminoah, a Charlottesville-based health tech startup dedicated to transforming enteral nutrition care for patients who rely on feeding tubes. Neal's journey with Luminoah began with a personal passion for improving patient outcomes and a professional background in business and healthcare innovation. Prior to founding Luminoah, Neal had extensive experience in the healthcare and startup sectors, where he developed a deep understanding of the challenges faced by patients, caregivers, and healthcare providers.

Neal launched Luminoah with the vision of integrating advanced technology, such as Al and data analytics, into the enteral feeding process to make it more effective and userfriendly. His leadership and strategic thinking have been instrumental in guiding Luminoah from a concept to a fast-growing startup, leveraging local resources like UVA i.Lab and securing funding to develop and refine their innovative device. Under Neal's guidance, Luminoah aims to empower patients and caregivers with data-driven insights and tools that can significantly improve the quality of life for those dependent on tube feeding. Neal's commitment to patient-centered innovation continues to drive Luminoah's mission as it seeks to revolutionize the enteral nutrition landscape.

Luminoah has greatly benefited from being part of the vibrant entrepreneurial ecosystem in Charlottesville, Virginia, which offers a supportive environment for startups, particularly in the health tech sector. The city's rich network of resources, including access to mentors, investors, and programs like UVA i.Lab and the Charlottesville Business Innovation Council, provided Luminoah with crucial support during its early stages. The collaborative community, coupled with access to cutting-edge research and talent from the University of Virginia, allowed Luminoah to rapidly develop and refine its innovative feeding technology.

Neal Piper's journey with Luminoah was deeply personal, driven by his experiences as a father. Neal's son was born with a condition that required enteral feeding, and the difficulties Neal faced in managing his son's feeding process fueled his determination to

find a better solution. Frustrated by the cumbersome, outdated, and often stigmatizing feeding methods available, Neal set out to create a portable, user-friendly, and data-driven approach to enteral nutrition. His vision was to not only improve the convenience of the feeding process but also enhance the overall quality of life for patients and caregivers.

Guided by his personal mission and leveraging the resources available in Charlottesville, Neal led Luminoah to develop a novel, portable feeding device that combines advanced technology with practical, real-world usability. His hands-on approach, driven by both personal and professional insights, ensured that Luminoah's products directly addressed the challenges he experienced firsthand. The supportive ecosystem in Charlottesville played a critical role in turning his vision into reality, providing the platform for Luminoah to innovate and make a meaningful impact on the lives of those reliant on enteral feeding.

Contraline

Contraline, a biotech company based in Charlottesville, Virginia, was founded in 2015 with the ambitious goal of revolutionizing male contraception. The company was the brainchild of Kevin Eisenfrats, who conceived the idea while studying at the University of Virginia. Recognizing the limited options available for male contraception and the significant gap in innovation in this area, Kevin set out to develop a long-lasting, reversible, and nonhormonal contraceptive solution for men.

Contraline's flagship product, ADAM[™], is a hydrogel implant designed to block sperm transport temporarily. The company's innovative approach quickly garnered attention, leading to early funding and support from the UVA i.Lab. This support allowed Contraline to conduct initial research and development, refine their technology, and eventually secure more substantial investments from venture capital firms and strategic partners.

Over the years, Contraline has grown steadily, expanding its team and advancing its technology through preclinical studies and regulatory pathways. The company's presence in Charlottesville has been a key factor in its growth, as the local ecosystem provided access to a wealth of academic resources, talented researchers, and a network of mentors and advisors. The proximity to the University of Virginia enabled close collaboration with experts in biomedical engineering and reproductive health, which was instrumental in the development and testing of their contraceptive implant.

Contraline's growth has been marked by significant milestones, including successful preclinical trials, the expansion of its intellectual property portfolio, and the initiation of clinical trials. The company's innovative approach to male contraception continues to attract interest and support, positioning Contraline as a leader in the field of reproductive health.

HemoShear

HemoShear Therapeutics, a biotechnology company based in Charlottesville, Virginia, was founded in 2008 with the mission to transform drug discovery and development by creating more accurate human disease models. The origin story of HemoShear began with a collaboration between Dr. Brett Blackman, a biomedical engineer at the University of Virginia, and Jim Powers, an experienced entrepreneur. Dr. Blackman's research focused on the effects of blood flow on cells, leading to the development of a novel technology that could replicate the human vascular environment in the lab. Recognizing the potential of this technology to revolutionize the way drugs are tested and developed, Jim Powers partnered with Dr. Blackman to co-found HemoShear.

The company emerged from the University of Virginia's rich research environment and was nurtured within Charlottesville's entrepreneurial ecosystem. With access to UVA's cuttingedge research facilities, talented scientists, and a supportive community of innovators, HemoShear was able to quickly advance its technology. The company's initial focus was on creating human-relevant models of diseases, particularly those involving the vascular system, to provide pharmaceutical companies with more predictive and accurate data during the drug development process.

HemoShear's early success was bolstered by the local startup community, which provided mentorship, funding opportunities, and a collaborative atmosphere that fostered innovation. The company's unique approach attracted attention from investors and pharmaceutical partners, enabling it to grow and expand its capabilities.

Over time, HemoShear evolved from a platform technology company to a therapeutics company, using its proprietary REVEAL-Tx[™] platform to discover and develop new drugs for rare metabolic diseases. This strategic shift was driven by the realization that their technology could not only improve drug development processes but also lead to the discovery of novel treatments for patients with unmet medical needs.

Today, HemoShear continues to thrive in Charlottesville, benefiting from its strong ties to the University of Virginia and the broader biotech community. The company's innovative work has positioned it as a leader in the field of human disease modeling and drug discovery, contributing to the advancement of personalized medicine and improving the likelihood of success in clinical trials.

SPARC Research

SPARC Research, based in Warrington, Virginia, was founded in 2013 with a focus on developing advanced rocket propulsion technologies for government and commercial customers. Drawing on years of experience in aerospace engineering, the company quickly established itself as a key player in the space exploration and defense sectors. Its founders, who had extensive backgrounds working with organizations like NASA and the Department of Defense, aimed to create innovative solutions that addressed critical needs in rocket systems, specifically around solid rocket motor technology and other propulsion systems.

Over the years, SPARC Research has built a strong reputation for its contributions to space exploration and national security projects. The company has expanded its reach by partnering with industry leaders and government agencies, providing technical expertise in the development of high-performance rocket systems and propulsion technologies. As one of the notable tech-focused companies in Fauquier County, SPARC Research plays a crucial role in positioning the region as a hub for innovation, while also contributing to the local economy and technological advancement in the aerospace industry.

Patriot Industries

Louisa, VA based Patriot Industries, was founded in 2010 with a vision to become a leading manufacturer of electrical conduit and accessories made in the USA. The company began with a commitment to quality, innovation, and exceptional customer service, focusing on producing aluminum electrical conduit, which quickly gained popularity due to its high quality and competitive pricing. The company bought its first machine on EBAY for \$5000. As Patriot Industries grew, it expanded its product line to include a range of electrical fittings and conduit options, catering to various industries such as construction, infrastructure, and utilities.

Over the years, Patriot Industries invested in state-of-the-art manufacturing facilities and equipment to enhance its production capabilities and ensure consistent product quality. The company's focus on domestic manufacturing and its commitment to "Buy American" principles resonated with customers seeking reliable, American-made products. This commitment, along with strategic partnerships and a strong distribution network, fueled the company's growth, making it one of the leading suppliers in the electrical conduit market. Today, Patriot Industries is known for its innovation, quality, and dedication to supporting American manufacturing, continuing to expand its reach while maintaining its core values of integrity and service excellence.

The company now has approximately 80 Employees located at one of their 3 USA Based Factories, 2 in Virginia and 1 in Houston Texas, totaling 140,000 SqFt of production and distribution space. They maintain approximately \$9,000,000 of Inventory in 12 Regional Warehouses throughout the USA and run their own Patriot Blue[™] Trucking Service to most of our customers.

Rhoback

Graduates of both UVA's Darden School of Business and the Batten Institute's iLab incubator, Rhoback, the activewear brand known for its performance polo shirts, Q-zips, and hats, was founded in 2016 by three friends—Kristina, Kevin, and Matt—who shared a passion for creating high-quality, versatile clothing. The idea for Rhoback was born during a road trip with their dog, Rhoback Ridgeback, where they noticed a lack of stylish yet functional clothing suitable for an active lifestyle. Inspired by the athleticism and spirit of their ridgeback dog, the founders decided to create a brand that embodied the same energy, resilience, and adventurous spirit.

The company began with a focus on creating premium performance polos that combined innovative fabrics with unique designs, targeting active professionals who needed clothing that could transition seamlessly from work to play. Rhoback quickly gained a loyal following thanks to its distinctive designs, comfortable fit, and moisture-wicking, wrinkleresistant fabrics. Leveraging social media, word-of-mouth marketing, and collaborations with athletes and influencers, Rhoback expanded rapidly.

The brand's product line grew to include Q-zips, hoodies, and other activewear essentials, maintaining a focus on quality and performance. With a strong emphasis on community

and customer engagement, Rhoback has continued to thrive, becoming a recognizable name in the activewear market and expanding its reach across the United States and beyond. The company's commitment to creating stylish, high-performance clothing that can keep up with an active lifestyle remains at the heart of its success.

Homegrown companies that grew out of, and outgrew, the local ecosystem

Babylon Farms

Babylon Farms was founded by a group of University of Virginia students who were passionate about revolutionizing agriculture through sustainable indoor farming. They demonstrated their early concept on grounds at UVA, and branched out to the local Charlottesville City Market (farmers market) where they tested their idea on consumers.

Their vision was to create a company that could provide fresh, locally-grown produce yearround, regardless of climate or season. They developed a cutting-edge indoor farming system that catered to both individual consumers and local businesses, quickly earning a reputation for quality and innovation. As the company gained momentum, they realized that their ambitions required a larger platform, leading them to move operations to Richmond, where they could scale up and meet growing demand.

The founders of Babylon Farms are a diverse team with backgrounds in engineering, environmental science, and business. Their complementary skills allowed them to tackle the technical challenges of indoor farming while also developing a strong business model. They have remained committed to their core values of sustainability, community engagement, and innovation, which have driven the company's success. Today, Babylon Farms is not only a leader in the indoor farming industry but also a testament to the entrepreneurial spirit fostered at the University of Virginia.

Beanstalk

Beanstalk was founded by two innovative entrepreneurs in Charlottesville with a shared passion for sustainable agriculture and technology. They envisioned a company that could provide fresh, nutrient-rich produce to urban communities using vertical farming

techniques. Starting with a small operation, and mentored in the UVA iLab, Beanstalk quickly gained attention for its ability to grow high-quality vegetables in urban environments with minimal environmental impact. Their success in producing fresh, locally grown produce year-round led to rapid expansion, and they soon outgrew their initial facility, moving to a larger location to meet the increasing demand.

The founders of Beanstalk bring a unique blend of expertise in agriculture, engineering, and business management. Their combined skills have allowed them to develop and refine a vertical farming system that maximizes efficiency and sustainability. With a focus on reducing food miles and providing healthy, locally sourced options, Beanstalk has become a pioneer in the urban farming movement. The company continues to push the boundaries of what's possible in agriculture, making a significant impact on how food is grown and consumed in cities.

Beanstalk is currently located in Herndon, VA.

Recommendations

The recommendations in this section of the report flow from an analytical process that contains 10 gates each recommendation must pass through to be considered:

- 1. Is the recommendation for an identifiable, widely accepted component of robust entrepreneurial ecosystems?
- 2. Is there evidence that the component is missing or underdeveloped in Region 9 (gap)?
- 3. Are the current efforts to close the gap in need of replacement or supplemental help?
- 4. Does the recommendation apply a best practice to help close the gap?
- 5. Can we envision how to implement the recommendation in a way that works based on the goals, infrastructure, and quality of life standards in each of the region's localities?
- 6. Is the recommendation actionable?
- 7. Is the recommendation impactful?
- 8. Is the recommendation fundable?
- 9. How does the recommendation look from the point of view of each locality?
- 10. How does the recommendation look from the point of view of the region?

We also offer these recommendations in the spirit of building an ecosystem in the same way innovative ventures are built – based on the lean startup concept to experiment and learn from the customer before marching forward.¹⁷

¹⁷ Feld in Startup Communities (2020), p. 58-59.

Recommendations to build the region's ecosystem

(2

Create region-wide steering committee

Coordinates with ESOs, chambers of commerce, economic development offices, and local guiding committees to ensure a cohesive, right-sized ecosystem building and promotion effort.



Using model set locally by the CvilleBioHub and BEACON Kitchen, create niche innovation environments for local emerging industries.

6 Increase exisiting ESO Capacity

Build upon the success of local entrepreneur support organizations (ESOs) by funding more staff and promoting their services.

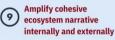


SBDC

VENTURE CENTRAL

8 Deliver cutting-edge training on tech and remote work

Convene education panels and produce materials to empower local business with the latest technologies and workforce management techniques.



Tap the region-wide steering committee to build consensus around a shared narrative that characterizes and promotes the region's entrepreneurial ecosystem.



3 Spin up industry support orgs

Industry focused peer groups that can convene, share information, education and resources, and gain access to ESOs and local guiding committees.

5 Nurture an opportunity culture

Establish local

Represents interests and

in each of the region's

government, other local

wide steering group.

goals of emerging businesses

localities. Coordinates with,

committees and the region-

guiding committees

Starting with curricula in local schools, colleges, and universities, and leveraging technology and in-person events to link employers with potential employees, create a promising talent channel.

Widen founder education of funding sources

Promote existing angel, family office, and fund sources to businesses and engage and promote the region's businesses to VCs and funds across the nation.

Recommendation 1: Create a region-wide ecosystem steering committee to develop and implement a unified vision for supporting founders and startups across targeted sectors.

This committee will convene stakeholders from each locality in Region 9.

This initiative should include ongoing monitoring of ecosystem-wide activity to match, coordinate, connect, and support entities and their efforts when productive for the ecosystem.

We recommend that this coordinating role be led by an established Entrepreneur Support Organization (ESO) in the region for professionally guided, long-term support.

This body should meet and share proceedings directly with relevant stakeholders representing the entrepreneurial stack in each locality. We envision that this body will be entrepreneur led, and will include business leaders, economic development directors, county supervisors, funders, and potentially at-large members. We recommend this group benefit from education and training in entrepreneurship in some form to deepen understanding of the startup journey. This training can be asynchronous online, in person, or a combination of both.

Goal

The goal of forming a region wide committee of this sort is to create an actionable, shared vision and to achieve buy-in of that vision with those able to support the execution of the vision. It should set and achieve action steps (milestones, KPIs (Key Performance Indicators)) to support the regional entrepreneurship narrative that accompanies that vision.¹⁸ A robust startup ecosystem, according to Feld (2022), needs the active convening and guidance of the entrepreneurial stack, stakeholders in the ecosystem. An ecosystem has so many determinants (see ANDE matrix), that entities acting on their own, without coordination or information sharing, may see their efforts erode because other parts of the ecosystem may be malfunctioning, non-existent, or, at worst, producing cross currents. Coordination also helps to reduce the likelihood of duplication of effort.

Suggested Components:

- Coordinator
- Recruitment of stakeholders from the entrepreneurial stack
- Agreement to an operation charter with KPIs
- Planning toolkits
- Right to Start material¹⁹
- Collaboration and clear communication with regional ESOs (sharing meeting notes with EDs, Chambers, CVPED, SBDC & other relevant regional-wide partners)
- Education/training on topics of entrepreneur ecosystem success

 ¹⁸ TomTom community conversation on April 20, 2024. Vault, Charlottesville. Follow up conversation with Paul Beyer, founder of TomTom, August 8, 2024. Pitch Night for the 2024 iLab cohort. The Rotunda, UVA.
 ¹⁹

How it could work

The committee could be formed through the selection, by each locality, of representatives to the committee. The committee could meet in a different locality each time, invigorating members with a broader touch and feel for how different localities in the region function. We would encourage the meeting to be a site of an emerging company, a support organization, or an incubator or accelerator if they exist (see recommendation 4 below.) We recommend that this group benefit from education and training in entrepreneurship.

Potential partners in effort

Potential partners in this effort could be representatives from ESOs, economic development, Chambers of Commerce, Venture Central, CBIC, TomTom, SBDC, CIC, Cville Biohub, CVPED, VCW, UVA, Germanna, Laurel Ridge & Piedmont Virginia Community Colleges.

Impact/outcome

Establish Central Virginia as a recognized hub for entrepreneurial success, underpinned by a unified, widely embraced vision across the region that advances a thriving ecosystem where entrepreneurs from diverse backgrounds are fully supported with readily accessible resources at every stage of business development. Success will result in a dynamic environment that nurtures innovation, encourages risk-taking, and celebrates entrepreneurial achievements.

Specific outcomes to achieve include:

- 1. Increase in the number of new businesses created in the region
- 2. Growth in the number of existing businesses expanded
- 3. Rise in the total number of businesses served by support programs
- 4. Increase access to regional mentors providing business assistance

Ultimate impact: Central Virginia would become a premier destination for ambitious entrepreneurs and innovative businesses, attracting talent, investment, and opportunities from across the nation, leading to job creation and economic growth in the region.

Funding Possibilities

Initial funding for this project might come from Go Virginia Region 9. We advocate for two year's funding in order to have sufficient time to see results. To access GO Virginia implementation grant funding, a 50% match is required. Of this match, at least 20% must come from local sources, with contributions from at least two localities within the region.

In kind support to house the Coordinator may come from existing ESOs. CBIC may provide access to its CVA Hub, which combines an asset map, communications board, and other online resources. It may be possible to include the activities of this recommendation in a funding request to the economic development organizations for an umbrella organization like CVSBDC, CVPED, or Venture Central, whom they already fund.

Sustainability Considerations

The outcome of this recommendation is to develop and implement a unified vision. After that outcome is achieved with initial funding, the committee may feel that additional funding for the committee is unnecessary as it could continue to function as an advisory board at minimal costs through the implementation process. Localities may provide ongoing support for the project.

Recommendation 2: Establish an ecosystem guidance committee in each locality that will guide startup policy and practice.

The offices of economic development are the government entities that are focused on regional vitality. These offices could potentially promote the establishment of these committees. As envisioned, we recommend this committee would be entrepreneur led and be composed of business leaders, members of the board of supervisors, chamber of commerce or other entrepreneur support entities, and potential funders in the locality — essentially the locality's entrepreneurial stack.

This committee will enable stakeholders in each locality to convene and set a vision for how they would like the locality to support businesses in targeted sectors, whether inside the locality or in collaboration with other regional localities. This body would set its own schedule and would be encouraged to share its proceedings with the entrepreneurial stack within the locality and the region as a whole. We recommend the meetings be designed and facilitated in a manner that promotes equitable participation.

Goal

Similar to the impetus for forming a regionwide committee, a locality-based committee of this sort presents an opportunity to process community needs with an eye toward supporting entrepreneurship, as separate from the body of economic development activities. The goal would include a locality-based vision for entrepreneurship that is supported within the locality by government, residents, and business leaders. This committee can also supply representatives of the regional committee with guidance and viewpoints, ensuring that all voices are represented as fully as possible in the locality-based ecosystem. Example guidance may include identification of challenges in the entrepreneur experience in the locality, such as licensing or regulatory restrictions that inhibit business location or existing business growth. The committee would present the challenges to government leaders that may influence remediation or definitive positions on restrictions.

Suggested Components:

- Coordinator
- Recruitment of stakeholders from entrepreneurial stack
- Agreement to an operation charter with KPIs
- Planning toolkits
- Right to Start material²⁰
- Collaboration and clear communication with regional ESOs (sharing meeting notes with EDs, Chambers, CVPED, SBDC & other relevant regional-wide partners)
- Education/training on topics of entrepreneur ecosystem success

How it could work

The committee could be formed through selection by entrepreneur leaders in each locality and should include economic development officers and some county supervisors. Financial and logistical support for these meetings as well as general communication could be supplied by the Regional Committee (see Recommendation 1 above).

We recommend that this group receive education and training in entrepreneurship in some form to deepen understanding of the startup and business expansion journey. Additionally, the committee can work with a planning toolkit (provided in the Appendix of this report) to identify the types of companies and founders it might target or prioritize based on the goals and idiosyncrasies of the locality. Finally, inasmuch as the committee can liaison with local government leaders, the committee can use materials created by Right to Start as a guide for governmental policies that can help support startup founders in the committee's locality.

²⁰ Right to Start is an organization dedicated to promoting entrepreneurship across the United States. They provide "field guides" for local community policymakers to use to support their founders. See https://www.righttostart.org/field-guides

Potential partners in effort

Potential partners in this effort could be existing ESOs involved in ecosystem development and interfacing with the Economic Development offices. These may include Venture Central, CBIC, TomTom, SBDC, CIC, Virginia Career Works, Virginia Tourism, college representatives and industry specific entities.

Impact/outcome

The impact of a successful project of this kind would be a localized entrepreneurship strategic plan with buy-in from community officials to invest in the plan. The plan should include the vision for the community as it relates to business, including local infrastructure or policy needs to support entrepreneurship. This committee is pivotal to ensuring that any regional vision for entrepreneurship is successfully adopted in each locality; it communicates and solidifies the cultural norm of a regional effort while supplying critical intelligence about the needs and direction of each locality.

Specific measurable outcomes to achieve include:

- 1. Increase in the number of new businesses registered or created in each locality
- 2. Growth in the number of existing businesses expanded within each community
- 3. Rise in the number of businesses served by local support programs
- 4. Increase in the number of new mentors providing business assistance at the local level

Ultimate impact: Establish Central Virginia as one of the most entrepreneur-friendly regions in the country, characterized by a supportive policy environment where starting and running a business is straightforward and well-supported. This environment will incentivize startups, empower under-resourced business owners, and simplify business operations, particularly in the early stages. As a result, the region could experience a surge in new business formation, increased business survival rates, and gain a national reputation for its thriving entrepreneurial ecosystem.

Funding Possibilities

We estimate that the initial funding for this project could come from GO Virginia, with 20% match from two or more localities. The Right To Start materials are free to the localities. Right To Start offers no funding support. If elected, the Harris Administration may offer tax incentives to new businesses which incentivizes new business formation and increases the importance of this recommendation. Communicating these benefits could be a role of this committee. May be funded in concert with Recommendations 1, 6 and 9.

It is possible that someone like the Kauffman Foundation or similar may have an interest; noting, Charlottesville is not geographically or ethnically in their key donor range. It is unlikely that any corporate or family foundation could be relied on for the long-term to support this combined activity but a local family foundation might have an interest at a reasonable cost

Sustainability Considerations

Once the region has adopted and implemented improvements to its entrepreneurial ecosystem, the ongoing need for this committee may be reassessed. If the region determines that the committee has fulfilled its primary objectives, it may choose to discontinue it. However, if there is a desire to maintain the committee for ongoing coordination and guidance, sustainability could be achieved by:

- 1. Streamlining operations to minimize costs
- 2. Seeking small, annual contributions from multiple local funding sources
- 3. Potentially rotating administrative responsibilities among participating organizations

This approach would allow for the continuation of the committee's coordinating role with minimal financial burden, should the region deem it beneficial to maintain this collaborative structure.

Recommendation 3: Expand the number of sector specific industry support organizations (peer groups) that will provide mentorship, education, community, and resource exchange.

One of the core gaps identified is the relative lack of opportunities for founders in different localities to interact with peers. Models of startup ecosystems – especially the ones cited for this report – emphasize the need for founders to convene and exchange information and experiences.

Goal

The primary goal of providing opportunities for peer interaction is to speed access to critical information founders need across their journey, and at key inflection points, to fail or succeed more quickly and gain access to resources for growth. Peer groups also increase opportunities for collaboration and resource exchange. In this report, we document several organic efforts among like-minded or similarly situated entrepreneurs to convene and exchange information, and we point out how founders have benefited greatly in the regions where frequent events, onramps, and intersections within the ecosystem exist by accessing information and guidance in time for it to truly matter. We contemplate that the circulation of information and support that currently exists in the region is likely to grow and be distributed more rapidly and efficiently through the existence of more well-run peer groups.

Suggested Components

- Coordinator(s)
- Leadership and structure from the entrepreneurial stack
- Recruitment of participants
- Regular meetups
- Value-driven content
- Equitable participation
- Feedback loop
- Communication
- Venues
- Amenities for meetings
- Collaboration with support organizations for resource and knowledge access

How it could work

The local committee proposed in Recommendation 2 could identify members of the business community who are exemplars and are willing to lead groups with logistical, communication, and financial assistance as needed to hold regular meetings and events where peers can network and receives consulting, mentoring, and education on key subjects such as funding, talent acquisition, collaboration opportunities and general support. Frequency of meetings and a desired online communication forum/format could be decided by each group.

Groups that may be formed within an industry sector (such as defense contracting), but formed in a particular locality, can be joined with similar groups in other localities, supported and coordinated by the regional committee outlined in Recommendation 1. To operate, these focused, industry groups would receive logistical and perhaps financial support from committees outlined in Recommendations 1 and/or 2 above. Groups could start with guidance from ESOs that have experience in peer group management (like 434, CIC and CV SBDC) and/or professional organizations that engage and train facilitators (like successful industry specific regional groups, Young Presidents Organization, or International Facilitators Organization.)

Impact/outcome

Peer groups have been shown to strengthen the building of a cohesive, supportive, start up culture. Peer group members have been shown to access resources faster and build strong bonds, often becoming future mentors. More ubiquitous peer groups should result in increased access and awareness of resources and more rapid community entrepreneurial success.

Specific measurable outcomes to achieve include:

- 1. Increase in the number of new mentors providing business assistance
- 2. Growth in the number of businesses served by peer support programs
- 3. Rise in the total funds raised by businesses participating in peer groups
- 4. Increase in the number of existing businesses expanded as a result of peer support

5. Growth in the number of new products released to production by peer group members

Ultimate impact: Achieve widespread "kitchen table" awareness and utilization of the region's multi-faceted support system for entrepreneurs, creating an environment where business owners at all stages intuitively know where to find help and can easily access the right resources at the right time. This seamless access to tools, knowledge, and connections will empower entrepreneurs to grow their businesses both locally and beyond, ultimately fueling sustained business growth, driving innovation, and solidifying Central Virginia's reputation as a region where entrepreneurial success is within everyone's reach.

Potential partners in effort

Potential partners in this effort could be existing ESOs involved in ecosystem development, event planning, communication, and logistics such as Venture Central, CBIC, TomTom, 434, Chambers of Commerce, SBDC and/or CIC. These organizations could serve as a central support body to help the groups establish their charters and operating procedures, while facilitating information and resource exchange.

Funding Possibilities and Sustainability Considerations

Go Virginia may be a source for a peer group implementation grant. Go Virginia is currently funding the Rural Entrepreneurship Ecosystem Building project managed by Community Investment Collaborative (CIC) and Central Virginia SBDC (CV SBDC), which was designed to include the exploration of peer groups based on targeted engagement of entrepreneurs in rural municipalities. In the second year of the grant enough connections were established to collaborate on rural peer group creation and management with the Chambers of Commerce in Orange County and Louisa County. However, the peer groups have not yet started and the Rural Entrepreneurship grant will end in 2025, leaving the challenge of manpower to support the groups. CIC and CV SBDC have been proposed to facilitate these groups if they include business advising.

The experience of the Rural Entrepreneurship Ecosystem Building team can help guide what has and hasn't worked in the efforts to engage entrepreneurs and start groups with and without the assistance of existing ESOs or the presence of incubator or accelerator spaces. CIC and SBDC can be a match to an implementation grant, providing guidance and organizational assistance for groups in some municipalities. Chambers of Commerce, CBIC, Tom Tom, 434 and others can help with convening of entrepreneurs to kick off gathering of entrepreneurs and industry groups for peer group formation. Once established, such groups should be able to sustain on their own or with the support of local Chambers of Commerce, the Small Business Development Center, Venture Central, or for large industry partners may include Central Virginia Partnership for Economic Development, relevant EDAs, Virginia Economic Development Partnership, or GenEdge.

Recommendation 4: Establish coordinated, sector specific incubators and accelerators that comprise "innovation communities."

We envision that these incubators and accelerators will result from an assessment of industries that have the greatest promise for scalable, traded sector startups, while encouraging "cross fertilization" of incubators (e.g., Ag Tech).

Every effort could be made to identify existing physical properties that can be repurposed to house the incubators and accelerators with well-articulated modes of remote connection to satellite locations and/or participants.

Current Incubators and Accelerators in Region 9:

- 434 Accelerator (Charlottesville's innovation-centric accelerator)
- Cville BioHub (newly announced)
- BEACON Kitchen
- i.Lab (for UVA students, faculty, alumni)

Note: Lighthouse Labs in Richmond, 757 in Hampton Roads, and RAMP in Roanoke, while not located in our region, draw participants from Region 9. Region 9 companies also travel and relocate across the country amidst the activity of participating in accelerators like MARS and Y-combinator.

Incubators typically support early-stage startups, while an accelerator targets established companies seeking resources and expertise to scale. Given this context, our recommendation aims to expand and strengthen both incubator and accelerator programs in the region, focusing on sector-specific needs and opportunities for cross-sector collaboration.

Goal

Establish sector-specific incubators and accelerators to signal a strong commitment to growing the startup ecosystem across the region. While the Agriculture, Food and Beverage production sector is a prime candidate due to its wide distribution and recent identification in reports, the goal is to create a framework for developing accelerators in various key sectors. This approach will foster innovation, attract investment, and support the growth of diverse startups throughout the region.

Suggested Components

- Coordinator
- Physical Site (optional)
- Process of identification and selection of participants
- Education/Training
- Connection to resources
- Stipends for founders (if possible)
- Potential housing for founders (if feasible and productive)

We recommend starting with an exploration of pilot programs in the Agriculture, Food and Beverage production sector as our conversations and contemporary studies point to this sector as a prime, emerging sector in the region.²¹

Second to this sector may be the clean energy sector, which is well developed in Charlottesville, but has potential for expansion to other localities. Defense, manufacturing, and information technology also appear to have relative critical mass and may be worth further exploration.

How it could work

Industry leaders and stakeholders from various targeted sectors can explore the feasibility and potential design for sector-specific incubators and/or accelerators. These programs would be tailored to help nascent businesses in each sector overcome unique challenges, scale operations, and engage with relevant markets and distribution channels.

For example, in the Agriculture, Food and Beverage sector, this might involve identifying promising businesses at farmers' markets and helping them increase production volume and expand distribution. In the technology sector, it could mean connecting startups with advanced resources and potential partners.

²¹ See Super Regional Initiatives study produced by Region 9:

https://cms9files.revize.com/rappahannock//Document_Center/Publications/Economic%20Development/ CEDS/Super%20Regional%20Strategies%20-%20VA%20Region%209.Approved.pdf

The process would involve:

- 1. Identifying key sectors or communities based on regional strengths and opportunities
- 2. Engaging industry leaders and experts in each sector
- 3. Assessing the specific needs of startups in each sector
- 4. Designing customized incubator/accelerator programs
- 5. Leveraging existing resources and partnerships within the region
- 6. Implementing pilot programs and iterating based on feedback and results

Potential partners in effort

A lead organization, such as an established Entrepreneur Support Organization (ESO) or economic development entity, can spearhead the effort to develop and launch sectorspecific accelerators. This lead organization would work with:

- 1. Industry leaders from relevant sectors in the region
- 2. Successful entrepreneurs and experienced business mentors
- 3. Local and regional early-stage investors
- 4. Representatives from academic institutions
- 5. Economic development organizations and Chambers of Commerce
- 6. Existing incubators and accelerators
- 7. Corporate partners interested in startup collaboration
- 8. Professional service providers and ESOs with startup experience

This diverse group can provide expertise, resources, and connections to support sectorspecific accelerators across various industries in the region.

Impact/Outcome

If successful, a solid line of support would be established to inspire, identify, and foster new products and ventures in the region. This success would bring new revenue to the region and would attract even greater attention from investors, while adding additional incentive for founders to build ties and remain in the region. Finally, it would represent a crowning achievement for any startup ecosystem and signal that the ecosystem is committed and maturing.

Specific measurable outcomes to achieve include:

- 1. Increase in the number of new businesses created in key traded and emerging sectors
- 2. Growth in the number of existing businesses expanded within these sectors
- 3. Rise in the number of jobs created by businesses participating in sector-specific accelerators
- 4. Increase in the total funds raised by businesses served in these key sectors
- 5. Growth in the number of new products released to production
- 6. Increase in the number of patents filed and awarded related to key sector innovations

Ultimate impact: Position Central Virginia Region 9 as a nationally recognized leader in key traded and emerging sectors, particularly in high-potential industries such as food & beverage, clean energy, deep tech, and non-agricultural tourism. Foster a robust ecosystem that cultivates innovation, accelerates growth, and supports the formation of thriving industry clusters. This environment will drive increased export activity, attract significant investment, and spark breakthrough innovations. As a result, the region will be home to a critical mass of cutting-edge companies in these sectors, boast a highly skilled workforce specialized in these fields, and be known as a hub for industry-academia collaborations. Ultimately, Central Virginia will be synonymous with innovation and excellence in its key sectors, drawing talent, investment, and opportunities from across the nation and beyond.

Funding Possibilities

The initial funding for the formation of accelerators and incubators could come from GO Virginia, with 20% locality match, with subsequent funding derived from other sources. It should be noted that VIPC and GO Virginia may not fund the same projects in the same year.

VIPC may be interested in directly supporting a clean energy accelerator or other tech accelerators; they have not historically funded non-innovation centric accelerators. The

clean energy accelerator, or one of its participating technologies, may be eligible for substantial support from the Biden-Harris Powering Affordable Clean Energy (PACE) program. The Rockefeller Foundation has compiled a list of large companies who have signed on to support conversion to renewable energy. These corporate donors may be found at https://www.rockefellerfoundation.org/news/countries-companies-signal-support-for-energy-transition-accelerator/

Whether funded by VIPC or GO Virginia, an accelerator will need to contribute a match for the effort. Private industry, local economic development and federal funding typically comprise the balance of the initial match.

Industry-specific accelerators may also attract funding from federal sources if the sector is a priority for a federal agency. Large businesses, lending institutions, and successful entrepreneurs or foundations that wish to give back to specific industries are traditionally key sources of funds for industry-specific accelerators. Banks have been particularly active in funding shared-use kitchens and food accelerators elsewhere in Virginia.

VDACs administers the Virginia Food Access Investment Fund. In 2023 they funded a team of Bread & Roses kitchen and Dairy Central (both in Charlottesville) to provide technical assistance to value added product entrepreneurs and other activities. This is an annual grant.

USDA offers a number of Ag-interested grants and support programs such as LAMP (for local food and farmers market support), the value-added producers grant that may be used to provide technical assistance to value added product producers to implement interstate marketing programs, the Rural Business Development grant, and the Resilient Food Systems Infrastructure Program (RFSI) administered in Virginia by VDACS.

VDACS is also administering a grant under the USDA Small-scale Specialty Crop Producers grant, to the National Association of State Departments of Agriculture (NASDA) to adapt the Farm2Food Accelerator curriculum to serve Virginia's specialty crop producers in launching or refining food and beverage value-added products to reduce food waste and improve economic resilience, food safety, and market access. This project will increase access for Virginia's specialty crop producers to the tools and education needed to expand their specialty crop production and distribution through value-added production. Presumably, when this adaptation is completed, it will be made available to food accelerators as well as producers, thereby reducing the startup costs associated with curriculum and content.

Regarding Defense Tech, there are increasing options for funding partnerships. For example, DIANA, the Defense Tech Accelerator started by NATO, is a network of over 200 affiliated accelerator sites and test centers. The nearest ones are in NY. https://www.diana.nato.int/

Promising ventures may also attract funding from local Angel groups and corporate foundations within the industry vertical.

Sustainability Considerations

Accelerators present exciting opportunities for long-term regional growth and innovation. To support sustainability, accelerators in Virginia have formed the Virginia Accelerator Network to share best practices and avoid duplication of effort (hosted by VIPC.) Additional recommendations for accelerator best practices follow.

- 1. Establish a robust funding strategy from the outset, incorporating diverse revenue streams such as corporate partnerships, private donations, and targeted grants.
- 2. Leverage the region's existing resources creatively. For example, a virtual accelerator model could utilize existing commercial spaces for product development, maximizing impact while minimizing overhead costs.
- 3. Develop a lean, adaptable business model that can evolve with the needs of the entrepreneurs and the region.
- 4. Build strong relationships with various stakeholders to create a supportive ecosystem that contributes to the accelerator's ongoing success.

By taking this proactive and collaborative approach, accelerators can become selfsustaining engines of innovation, driving economic growth and entrepreneurial success in the region for years to come.

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Recommendation 5: Foster a culture of entrepreneurship and talent retention by creating robust connections between educational institutions, employment resources, and regional businesses.

We recommend programs institutionalized in the curricula in schools at all levels that make students aware of opportunities as startup founders themselves or as employees of local startups and vice versa.

Goal

There are four distinct goals of this effort:

- 1. Educate students in the region about opportunities to become founders and/or find meaningful employment in the region.
- 2. Connect startups with needed talent.
- 3. Contribute to the whole of building out a culture of entrepreneurship in the region.
- 4. Establish the means for companies to identify, connect, and interact with potential talent in the region's high schools, colleges, universities, and graduate schools, as well as those institutions that may closely border the region.

Suggested Components

- Coordination and collaboration with educational institutions
- Consideration of technology solutions for student/opportunity connections (ex. Grapevine platform)
- Explore models like CBIC Tech Tour (potentially for different sectors/locations)
- Evaluation of entrepreneurship curriculum appropriate for diverse demographics (age, complexity of business, other demographic considerations)
- ESO engagement to explore a comprehensive regional talent resource guide that catalogs job boards, recruitment platforms, and workforce development programs across Region 9, providing entrepreneurs with a centralized tool to efficiently identify and access the skilled talent they need.

Impact/Outcome

The goals described above, combined, provide perhaps less visible but nevertheless essential underpinning to a thriving startup ecosystem while filling immediate economic gaps in the life of the region's communities. It can enhance each locality's capacity for providing meaningful local employment and fuel revenue growth without adding pools of new residents (a goal of many Region 9 localities.)

Specific measurable outcomes to achieve include:

- 1. Increase in the number of youths connecting with entrepreneurship support entities
- 2. Increase in the number of people trained in skills relevant to key regional industries
- 3. Growth in the number of job placements resulting from training and talent connection programs
- 4. Rise in the number of new internships, fellowships or apprenticeships within regional businesses
- 5. Growth in the number of credentials awarded that align with regional industry needs
- 6. Increase in the number of businesses served by talent development and connection initiatives
- 7. Rise in the number of jobs created by businesses participating in these talent programs

Ultimate impact: Establish Central Virginia as a connected, resource rich talent hub, characterized by a dynamic ecosystem where businesses effortlessly attract, develop, and retain skilled workers across various industries while engaging younger entrepreneurs in the region. This robust talent landscape will seamlessly integrate local talent development pipelines with innovative remote work strategies, creating a flexible and highly skilled workforce. As a result, the region will earn a reputation as a top destination for both companies seeking top-tier talent and professionals looking for exciting career opportunities. This thriving talent ecosystem will fuel business innovation, drive sustainable growth, and adapt quickly to evolving industry needs.

How it might work

This effort can be accomplished by multiple, simultaneous activities. Local college and/or university faculty can develop mini courses (in person, virtual and asynchronous) on entrepreneurship. At the same time, arrangements can be made for startups to host students and engage them with real world problem solving or activities that can move the startup forward. Technology (e.g., a new startup – Grapevine) can be used to enable students to learn about startup employment opportunities while simultaneously startup employers can learn about individual student activity and aspirations and track their progress.

Finally, students can be encouraged to attend local events where founders and startups are featured (e.g., pitch competitions, panels, meetups, etc.).

Potential partners in effort

Potential partners include a diverse range of educational institutions (high schools, universities, CATECs, and community colleges) alongside entrepreneurship support organizations (ESOs) like CBIC, which bring expertise in startup lifecycles and regional resources.

Collaborators could include Tech Link, Virginia Talent + Opportunity Partnership (VTOP), and Virginia Jobs Investment Program (VJIP). Resources that support workforce efforts like Virginia Career Works - Piedmont Region and Network2Work. Faculty members from local colleges and universities could also support content for delivering mini courses or guest classes and startups could be encouraged to host "entrepreneur tours" where students can visit and interact with founders (potentially in incubators and accelerators as described in Recommendation 4 above.

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Funding Possibilities

We recognize that GO Virginia is undertaking planning grants for its Talent Pathway Initiative in all five growth sectors it targets. These TPI projects are designed to address all areas of the market including those provided through high school career and technical education, credentials, certifications, apprenticeships, internships, and other degree and non-degree programs. The outcome of these planning grants are three-five year action plans that GO Virginia could support. Our research strongly supports the need for these action plans and we believe that GO Virginia, with match help from localities and possibly the Workforce Boards', are the way to fund this important and wide-ranging recommendation.

Sustainability Considerations

The aspect of this recommendation that relates to entrepreneurship, rather than talent pipeline, returns the most immediate investment with college age students; however, high school students are more often grounded in the community (since college students more often come from other regions of the world.) For a low investment solution, we propose coordination of offering the aforementioned mini-courses or drop in lectures by professors or professionals in entrepreneurship in the high schools, technical education centers and colleges that lack entrepreneurship education. If content is made available via Coursera or short format videos, long-term value on demand courses appropriate for a younger audience may be a sustainable solution. Existing ESOs may also make content available and offer time to answer questions about resources for entrepreneurship to high school and college instructors.

Recommendation 6: Increase the capacity for SBDC, CIC, SCORE, industry focused and other ESOs to support regional businesses.

Local support businesses create vibrant communities that have the quality of life necessary to make relocation to the area for talent and existing entrepreneurs more attractive, while maintaining quality of life for those already living and working in the region. Existing ESOs also offer expertise and services that can help community businesses succeed while helping startups scale through their journey. Some of our ESOs are 1) have valuable entrepreneurship resources that are unknown widely or under-utilized, and 2) are conducting ecosystem development work that is not the core work of their entity. Efficiencies and support of current ESO activity may be able to be accomplished if the recommendations above are executed collaboratively, with current ESOs.

We recommend that the committee described in Recommendation 1 above leverage the experience and connections current ESOs demonstrably know how to deliver while relieving current ESOs of non-core responsibilities where possible.

Goal

The goal of this recommendation is to maximize efficiency and experience of ESO assets currently working the region, expanding upon the good work they've already accomplished. The region boasts solid, high performing ESOs. It will enhance the prospects of building a successful, sustainable ecosystem if the types of services ESOs currently provide are present and delivering service at a high level, in each locality that seeks to participate in the ecosystem.

Suggested Components

- Coordinator
- Assessment of staffing needs and capacity of existing ESOs
- Potential funding for new ESO staff
- Potential locations for ESO satellite operations
- Collaboration with regional committee as outlined in Recommendation 1 to identify the most efficient role each ESO could play in propelling the ecosystem.

How it might work

The regional support coordinating committee outlined in Recommendation 1 could convene and consult with ESO leaders to catalog, understand and synthesize all the services and activities the ESOs deliver, what staffing and infrastructure needs they may have currently, and if demand dictates expansion of their services to the greater parts of the region. The committee could also explore with ESO leaders how to transfer intelligence and techniques ESOs have developed in the region over the years to potential new institutions such as industry support organizations, as well as incubators and accelerators as described in Recommendations 3 and 4 above, respectively.

Impact/Outcome

The region's current ESOs have a solid track record of helping local business grow with expert mentoring, guidance, and in the case of CIC, financing. ESOs have assisted scalable, traded sector startups as well as local, community support businesses. Leveraging their expertise and capabilities will deliver one of the key components of a robust entrepreneurial ecosystem with far less financial stress on the ecosystem than what would otherwise be required if the current ESOs were not already established and experienced.

Specific measurable outcomes to achieve include:

- 1. Increase in the number of businesses served by ESOs across the region
- 2. Growth in the number of new businesses created as a result of ESO support
- 3. Rise in the number of existing businesses expanded with ESO assistance
- 4. Increase in the total funds raised by businesses served by ESOs
- 5. Growth in the number of new mentors providing business assistance through ESOs
- 6. Increase in the number of jobs created by businesses supported by ESOs
- 7. Rise in the number of new products released to production by ESO-supported businesses

Ultimate impact: Develop Central Virginia into a network of diverse, amenity-rich communities that blend entrepreneurial energy with an exceptional quality of life, paying special attention to enhancing rural areas. By strategically addressing gaps in services and amenities across the region, foster an environment where every community, regardless of

size, offers a compelling mix of professional opportunities and lifestyle benefits. As a result, Central Virginia will become a draw for talented individuals and innovative businesses, attracting those who seek an ideal balance of work and life. This development will result in vibrant town centers, modern recreational facilities, thriving cultural scenes, and robust support services that cater to the needs of both entrepreneurs and residents.

Potential partners in effort

Potential partners in this effort could be existing ESOs involved in ecosystem development, event planning, communication, and logistics such as Venture Central, CBIC, SBDC and/or CIC. These organizations could serve as a central support body while local entrepreneurs could take responsibility for setting the agenda for convening.

Funding possibilities and Sustainability Considerations

Our research showed a level of demand for ESO services beyond the existing capacity of Entrepreneurial Support Organizations in our Region. It appears that there is a need for an increased level of funding for these organizations. Long-term support should be provided by the Commonwealth of Virginia funding support for CV SBDC (which it currently does not provide) and increased levels of baseline support from already supportive localities. Additional funding for new programs could come from grants, but the need identified here is baseline capacity; raising long-term operating capital from grants is low probability.

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Recommendation 7: Widen founder education about and exposure to capital sources and connect more venture capital sources (VCs) with the region.

Goal

The goal of this effort is to ensure that rising founders understand the range of funding available to them, and are educated regarding receipt and management of various forms of capital appropriate at different inflection points in their venture's journey. Additionally, this effort is intended to build relationships between founders and potential funders – banks, angels, family offices, and VCs, and how to optimally handle friends and family investors. Finally, the interaction between VCs, local angel investors, and founders will help build relationships between angels and VCs who may become critical to portfolio companies as they progress.

Suggested Components

- Coordination with industry support organizations, incubators, accelerators
- Education/Training via local Angel Groups, SBDC, CIBC, Cville BioHub
- Collaboration with VIPC, VPED
- Invite VC representatives or support venture VC connection opportunities
- Accommodations for visiting VCs

How it might work

A coordinating support entity would arrange for periodic or regular events (in person with virtual option) where panels or instructors could present funding options and the inflection points in the founder's journey around which different funding options should be planned for and considered. Asynchronous online resources can also be produced and enhanced with the content from these live sessions. Programs on strategic plans for fundraising could also be offered as regional high-growth founders have noted challenges with fundraising planning and decision making.

Special attention will be paid to promoting the sessions and information through the industry support groups, incubators, and accelerators outlined above in Recommendations 3 and 4, respectively.

The regional coordinating support organization can arrange for "tours" VCs can take of regional startups to get familiar with the strengths of the ecosystem and local Angel groups to cement relationships with VCs as well. Appropriate entrepreneurs may also be invited to VC pitch opportunities (such as the George Mason supported Accelerate Conference), or educational opportunities, such as entrepreneur friendly venture capital conferences.

Impact/Outcome

Funding is perhaps the least understood and most critical component of a startup's journey. Many startups fail because they are under or overcapitalized at different points in their journey, and most startups that are unable to get the financing they need can be due in large part to a lack of relationship building and planning. If founders are well educated on the nuance of planning, preparing and structuring for funding, the chances of success for all startups in the ecosystem will be increased and the reputation of the ecosystem and region for sophistication among VCs and other funding sources could be increased as well, ultimately availing the regions of greater funding opportunities.

Specific measurable outcomes to achieve include:

- 1. Increase in total funds raised by businesses served in the region
- 2. Growth in the number of businesses served by funding education and access programs
- 3. Increase in the number of new businesses created as a result of improved funding access
- 4. Rise in the number of existing businesses expanded due to better capitalization
- 5. Growth in the number of mentors providing funding-related business assistance
- 6. Increase in the number of jobs created by well-funded businesses in the region
- 7. Rise in the number of new products released to production, facilitated by proper funding

Ultimate impact: Establish a robust and diverse capital landscape in Central Virginia where entrepreneurs easily navigate, understand, and access the most suitable financing

options for their needs. This comprehensive system will educate business owners about various funding opportunities, improve access to both traditional and innovative capital sources, and provide expert support in securing financing and grants. As a result, the region will experience accelerated business growth, increased investment flows, and the emergence of a flourishing ecosystem populated by well-funded startups and successfully scaling companies. Ultimately, Central Virginia will be recognized as a region where capital accessibility fuels entrepreneurial success and economic vitality.

Potential partners in effort

Potential partners in this effort could be existing ESOs involved in ecosystem development, event planning, communication, and logistics such as CV SBDC, CIC, Venture Central, 434, banks, and communication and association entities like the Chambers, Cville Biohub, REA, CBIC and TomTom. Local angel groups could help support the effort with content and by supplying speakers and panel members as well as venues and amenities for events.

Funding possibilities and Sustainability Considerations

We estimate that the initial funding for this project could come from GO Virginia. Sustainability may happen through CV SBDC, 434 accelerator, CIC, or other direct education providers. These may include the angel groups and other accelerator entities, like Cville Biohub.

Funding one or more technical assistance positions could come from a number of public sector sources as well such as EDA, USDA, EPA, and the Commonwealth of Virginia, all of whom have grants to provide funding for technical assistance positions. Once the amount of cash infusion and equity funding attracted by these full time positions are reported in the pilot project, banks, venture capital entities, foundations, and public sector navigator/technical assistance grants could be acquired to replace GO Virginia funding in future years.

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Recommendation 8: Provide education and training around the latest technology tools (such as AI, computing technologies, remote workforce management) so that the region's founders and entrepreneurs can be on the cutting edge of technology to build faster and more efficiently.

Goal

The goal of this initiative is to empower regional entrepreneurs and businesses with cutting-edge technology skills, such as AI and computing skills, enabling them to leverage these technologies to accelerate growth, improve efficiency, and potentially reduce capital requirements. By democratizing access to these powerful tools, the region can foster innovation, increase competitiveness, and position itself as a tech-savvy entrepreneurial hub.

Suggested Components

- Coordinator
- Curriculum development (AI, machine learning, cloud computing, etc.), which may include off the shelf programs
- Partnerships with tech companies, local universities and ESOs
- Workshop series and hands-on training sessions
- Online learning platform for asynchronous access
- Mentorship program pairing tech experts with local entrepreneurs
- Showcase events for AI/tech implementations

How it could work

A program coordinator could work with local tech experts, universities, and industry partners to develop a comprehensive curriculum covering various aspects of AI and advanced computing. This could be delivered through a combination of in-person workshops, online courses, and hands-on training sessions. Regular showcase events could highlight successful implementations, inspiring others and demonstrating the region's growing tech capabilities. The program could also include a mentorship component, where tech experts are paired with local entrepreneurs to provide ongoing guidance and support in implementing these technologies. This personalized approach would help ensure that businesses have consistent access to resources and can effectively apply what they've learned to their specific challenges and opportunities.

Impact/Outcome

By equipping regional businesses with advanced technology skills, this initiative could lead to:

- 1. Increased operational efficiency and reduced costs for startups and growing businesses
- 2. Enhanced product development capabilities, potentially leading to more innovative offerings
- 3. Improved competitiveness in both local and global markets
- 4. Attraction of tech talent to the region
- 5. Potential reduction in capital needs as businesses leverage technology to do more with less
- 6. Positioning of the region as a forward-thinking, tech-enabled entrepreneurial ecosystem

Specific measurable outcomes to achieve include:

- 1. Increase in the number of people trained in AI and advanced technology skills
- 2. Rise in the number of businesses served by technology upskilling programs
- 3. Growth in the number of existing businesses expanded through technology adoption

Ultimate impact: This project could result in faster-growing, more resilient businesses that are better equipped to compete in the modern economy, enhancing the overall economic vitality of the region.

Potential partners in effort

Potential partners in this effort could be: local higher education (e.g., University of Virginia, community colleges), tech companies with a presence in or near the region, local tech meetup groups and organizations (e.g., CBIC), Venture Central, SBDC, and other existing support organizations, and successful tech entrepreneurs from the region who can share real-world insights.

Funding Possibilities and Sustainability Considerations

Initial funding could come from GO Virginia, which requires 20% match from two or more localities, potentially supplemented by:

- Private company sponsorships
- Grants from state or federal technology and economic development programs
- Nominal fees for advanced workshops or certifications
- Contributions from local economic development offices

This project could be sustained at low cost with donations through local banks and business sponsorships.

America's SBDCs has also received a \$10M commitment from Google for AI education. Enrichment of that offering with Google support or funding from other technology partners may be an option.

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Recommendation 9: Craft and amplify a compelling narrative to promote awareness of Central Virginia's entrepreneurial ecosystem within and beyond the region.

Goal

The goal of this concerted storytelling effort is as follows:

- 1. To educate and inspire founders, funders, support entities, and others within the ecosystem;
- 2. To create greater awareness of existing regional resources;
- 3. To create cultural norms that support innovation;
- 4. To attract attention and support from markets, tourists, and funders outside of the ecosystem, each of which plays a role in delivering revenue to the region.

To achieve these goals effectively, we recommend convening existing regional storytellers and engaging a professional communications firm. This expertise will help create and sustain a compelling narrative that promotes the unique qualities of our region's entrepreneurial ecosystem.

Suggested Components

- Marketing/Communications firm
- Direction from regional coordinating body to form a narrative that supports the regional vision
- Connections with funders, accelerators, inside and outside region
- Connections with regular media outlets inside and outside region

How it could work

As the coordinating support committees at the regional and locality level execute on their roles, they gather data and stories about their activities and feed this information to a coordinating entity and/or professional marketing and branding firm. The marketing and branding firm, under the regional committee's direction, proposes both PR and advertising

campaigns that simultaneously develop a narrative about the region that aligns with the regional vision and highlight goods and services the region's companies are producing.

Impact/Outcome

A powerful narrative about building an innovation-based, entrepreneurial ecosystem, right sized for the unique character of the region, will earn the region attention and admiration for being a model that "got it right," balancing innovation, revenue generation, and quality of life. The region's efforts could become a case study for others to emulate and will drive value and revenue to companies and local governments, by design without compromising quality of life standards each locality has set for itself.

Specific measurable outcomes include:

- 1. Increase in the number of new businesses created in the region
- 2. Growth in the number of businesses attracted to the region from outside

Ultimate impact: Develop Central Virginia into a nationally recognized hub for innovation and entrepreneurship, known for its unique approach to balancing cutting-edge business development with quality of life. This coordinated storytelling effort will result in a cohesive regional identity that attracts talent, investment, and opportunities from across the nation and beyond. It will increase awareness and participation in entrepreneurial activities among local residents, foster greater collaboration between localities, and enhance the region's ability to recruit and retain innovative businesses and skilled workers.

The powerful narrative will not only drive economic value but will also reinforce the unique character of each locality, demonstrating that innovation and quality of life can coexist and mutually reinforce each other. As a result, Central Virginia will become a model for other regions to emulate, positioning itself as a thought leader in sustainable, quality-of-life-focused economic development. This amplified impact will extend to all other ecosystembuilding efforts, as successes are effectively communicated and leveraged for further growth, ultimately creating a virtuous cycle of innovation, attraction, and regional prosperity.

Potential partners in effort

Potential partners in this effort could be the committees described above in Recommendations 1 and 2, as well as existing ESOs involved in ecosystem development, event planning, communication, and logistics. These may include but are not limited to Venture Central, Chambers of Commerce, CBIC, TomTom, SBDC and/or CIC. Such organizations could serve as sources of information and perspective while local entrepreneurs can tell hyper specific stories that can be turned into compelling parts of the overall narrative. VEDP, CVPED and local economic development and tourism offices would also be engaged in these efforts.

Funding Possibilities and Sustainability Considerations

Initial funding for this project could come from GO Virginia, providing a foundation to generate the narrative and brand compass (target customer, voice, brand identification elements) to prepare for marketing and storytelling initiatives. For long-term sustainability, we envision a diverse funding approach:

- Local foundations and private donors passionate about promoting Charlottesville's entrepreneurial narrative, such as the teams behind Charlottesville Tomorrow, Cville Weekly and the TomTom Foundation, could be supporters.
- 2. Industry organizations representing the region's key sectors might contribute to highlighting their role in the ecosystem.
- 3. Economic development and tourism arms of different localities could allocate resources to this effort as part of their broader promotional strategies.
- 4. Private industry sponsorships could support specific storytelling campaigns or platforms, seeing it as an opportunity to align with the region's innovative brand.
- 5. Entrepreneur Support Organizations (ESOs) in the region could contribute by providing content and success stories, potentially offsetting some costs.

This multi-faceted approach aims to create a sustainable model that leverages local interest and regional collaboration to continually showcase and promote our unique entrepreneurial ecosystem.

Appendix

Appendix A - Sources for Entrepreneurial Ecosystem Models.

Brad Feld's "Boulder Thesis"22

Feld's Four Principles

Brad Feld's "Startup Communities"²³ outlines a framework for building vibrant and sustainable startup ecosystems. Feld emphasizes the importance of long-term commitment and leadership from entrepreneurs. He introduces the "Boulder Thesis," based on the experience of the robust ecosystem in Boulder, Colorado, which includes four key principles:

- 1. Entrepreneurs must lead the startup community: Feld believes that entrepreneurs should be the primary driving force behind the startup community, as they understand the unique challenges, opportunities, and risks involved in building a business. Their leadership ensures that the ecosystem remains relevant, effective, and supportive of the needs of entrepreneurs.
- 2. The community must be inclusive of anyone who wants to participate. A successful entrepreneurial ecosystem is built on diversity, inclusivity, and openness. Feld emphasizes that the startup community should be open to anyone who wants to participate, regardless of their background, expertise, or experience. This inclusiveness fosters collaboration, creativity, and shared growth.
- 3. The community must have continual activities that engage everyone in the entrepreneurial stack: Continuous engagement and learning are essential for maintaining momentum and driving innovation within the startup community. Feld recommends organizing regular events, programs, and activities that promote

²² Refers to the entrepreneurial ecosystem in Boulder, Colorado.

²³ Feld (2020). *Startup Communities: building an entrepreneurial ecosystem in your city* (Second Edition). Hoboken, NJ: Wiley.

networking, learning, and collaboration among entrepreneurs, investors, mentors, and other stakeholders.

4. The community must be committed to the long term (at least 20 years): Building a sustainable entrepreneurial ecosystem takes time and perseverance. Feld suggests that leaders should commit to their community for a long-term period, often as long as 20 years, to ensure that the ecosystem grows, adapts, and continues to support startups and entrepreneurs.

Leaders, Feeders, and Instigators

Feld also stresses the importance of collaboration between entrepreneurs, government, universities, investors, and mentors. **He believes that a successful startup community requires a culture of giving before taking, fostering connections, and supporting each other's growth**.

He describes the roles of "leaders, feeders, and instigators" as follows:

Leaders: Leaders are primarily entrepreneurs who have a deep understanding of the challenges and opportunities in building businesses. They play a pivotal role in driving the startup community, setting the vision, and guiding the ecosystem's development. Their leadership ensures that the community remains relevant, effective, and supportive of the needs of entrepreneurs.

Feeders: Feeders are the supporting stakeholders that contribute to the growth and success of the startup ecosystem. These include investors, mentors, service providers, large companies, government and policymakers, and educational institutions. Feeders play a vital role in providing resources, guidance, and connections that help startups thrive.

Instigators: Instigators are the proactive individuals or organizations that initiate and drive activities, events, or programs to promote engagement, learning, and collaboration within the startup community. They act as catalysts that bring together different stakeholders, fostering a sense of unity and shared purpose in the ecosystem.

The Entrepreneurial Stack: The Stakeholder Map

Feld identifies stakeholders that make up what he calls the "entrepreneurial stack."

- **Entrepreneurs:** They are the heart of the startup community and the primary driving force behind innovation and growth.
- **Investors:** Investors such as angel investors, venture capitalists, and other financial institutions provide the necessary capital to support entrepreneurs in their ventures.
- **Mentors:** Experienced entrepreneurs, business leaders, and industry experts who offer guidance, advice, and support to help startups navigate the challenges they face.
- Service Providers: Professionals and organizations that offer services such as legal, accounting, marketing, and other support functions that are essential to the success of startups.
- **Large Companies:** Established corporations in the region that can provide resources, partnerships, and expertise to the startup community.
- **Government and Policy Makers**: Local and national government bodies that can create a conducive environment for entrepreneurship through policies, regulations, and incentives.
- Educational Institutions: Universities, research institutions, and other educational organizations that contribute to the ecosystem by providing talent, research, and innovation.

According to Feld, by understanding and engaging with the various stakeholders in the entrepreneurial stack, communities can work together to build a thriving and sustainable entrepreneurial ecosystem.

The Kauffman Foundation Model - The Entrepreneurial Ecosystem Building Playbook 3.0 (2019)

Feld's entrepreneurial stack parallels the Kauffman Foundation conclusions about startup communities. According to the Kauffman Foundation's effort to analyze and promote entrepreneurial ecosystems,

The essence of an entrepreneurial ecosystem is its people and the culture of trust and collaboration that allows them to interact successfully. An ecosystem that allows for the fast flow of talent, information, and resources helps entrepreneurs quickly find what they need at each stage of growth. As a result, the whole is greater than the sum of its separate parts.²⁴

The Kauffman model envisions the interaction of different roles within the community:

- Entrepreneurs who aspire to start and grow new businesses, and the people who support entrepreneurs.
- **Talent** that can help companies grow.
- People and institutions with knowledge and resources to help entrepreneurs.
- Individuals and institutions that serve as **champion and conveners** of entrepreneurs and the ecosystem.
- **Onramps** (or access points) to the ecosystem so that anyone and everyone can participate.
- Intersections that facilitate the interaction of people, ideas, and resources.
- Stories that people tell about themselves and their ecosystem.
- **Culture** that is rich in social capital collaboration, cooperation, trust, reciprocity, and a focus on the common good makes the ecosystem come alive by connecting all the elements together.

We note here that the key to Feld's entrepreneurial stack functioning as it should, the community, as the Kauffman Playbook points out, **needs** *onramps* **and** *intersections*, **opportunities to interact. It is here, through this interaction, that entrepreneurs can accelerate their knowledge of and access to resources they need.** These same

²⁴ https://www.kauffman.org/ecosystem-playbook-draft-3/ecosystems/

interactions can also speed the community's ability to identify, filter through, incubate, and accelerate startups.

The Aspen Network for Development Entrepreneurs (ANDE) Entrepreneurial Ecosystem Diagnostic Toolkit²⁵

The ANDE Entrepreneurial Ecosystem Diagnostic Toolkit was developed to address the need for a comprehensive and systematic approach to evaluating and understanding the various components that contribute to a thriving entrepreneurial ecosystem. The development of the toolkit was driven by the recognition that traditional methods of assessing entrepreneurial environments often lacked the depth and specificity needed to identify actionable insights and areas for improvement.

The creation of the toolkit involved collaboration among various stakeholders, including development organizations, policymakers, entrepreneurs, and academic institutions. This collaborative effort ensured that the toolkit incorporated diverse perspectives and expertise, making it a robust and versatile resource for diagnosing entrepreneurial ecosystems.

The toolkit has been widely adopted by various organizations and entities working to foster entrepreneurial growth. Its use has spanned multiple regions and contexts, demonstrating its flexibility and applicability. The ANDE Entrepreneurial Ecosystem Diagnostic Toolkit has made significant contributions to the field of entrepreneurship development by providing a structured and evidence-based approach to ecosystem analysis. It has enabled organizations to make informed decisions, prioritize interventions, and allocate resources more effectively to support the growth and sustainability of small and growing businesses. The framework is composed of "determinants" of ecosystem performance, the results of performance, and the impact of these results. The interaction of these are shown in the figure below.

²⁵ In 2013, The Aspen Network of Development Entrepreneurs (ANDE) published a diagnostic tool for evaluating entrepreneurial ecosystems after synthesizing.

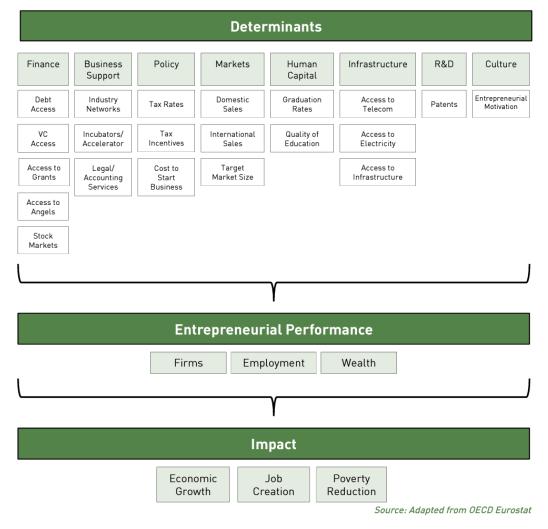


Figure II: Entrepreneurship Measurement Framework

Appendix B - Research and Data Gathering Approach

Using the elements of productive entrepreneurial ecosystems found in the three models as a backdrop, the research approach for the current study focuses on learning from well positioned "informants" to paint a portrait of how entrepreneurship is functioning across each locality in the region.

Our informants (interviewees, focus group participants, survey responders) for the research, are all experts by nature of their positions relative to entrepreneurs in the region. Our sample consists of economic development directors, entrepreneurs, members of state level support agencies, and entrepreneur support organizations, all entities immersed in the entrepreneurial activity in their respective localities.

The conclusions and necessity for recommendations in the following report are inferred from information provided by these informants which is then arrayed against the ANDE diagnostic tool (our rubric), as well as the Feld and Kauffman models, to reveal gaps and remedies for improving entrepreneurial growth in the region.

Importantly, we also use quantitative data provided by sources such as the region's Comprehensive Economic Development Study, the U.S. Census Bureau, and county strategic plans to inform recommendations as these sources capture quantifiable information such data as population, types of companies across the region, average pay levels, revenue levels, and job growth.

Five phase approach to data discovery, validation, and triangulation²⁶

We designed and executed a five-phase research and analysis process to gather data for the current report.

²⁶ See full methodology notes in the Appendix

Phase 1: Grounded Discovery INTERVIEWS

We interviewed 95 individuals who were considered to be subject matter experts that have either founded companies in the region or work for entities that support company founders in one form or another (e.g., economic development offices, chambers of commerce, industry organizations, etc.). Every effort was made to connect with and engage with a sample of informants proportionately distributed across different localities within the region and, as available, different industry sectors. We also spoke with entrepreneurs engaged in both traded and non-traded sectors. We also consulted relevant secondary sources of data initially and throughout the research phase, particularly reports that describe the social, demographic and economic activity of each locality.²⁷

This approach promotes the ability to understand the entrepreneurial environment through discovery in each area of the region and the region, without focusing on the precise needs of each interviewee; to treat each interviewee as a data point runs the risk of assessment with sampling bias.²⁸

Phase 2: Validation + Additional Discovery: Survey of Entrepreneurs and ESO Staff in the Region

Using learning from our interviews, we crafted a survey questionnaire²⁹ and invited entrepreneurs and ESO staff throughout the region to complete the survey online. The survey was promoted in each locality via economic development offices, and CIC and Venture Central placed ads online inviting regional entrepreneurs to respond. The survey items directly reflected themes that emerged from our interviews as well as standard questions about the elements of entrepreneurial ecosystems, providing us the ability to validate what we inferred from the interviews and see how infrastructure for a region wide

²⁷ See Background section above and Appendix for sources

²⁸ Interview and focus group participants provide insight from their vantage points. Since we can't account for non-response bias in interviews and focus groups, we treat the information provided as information to be synthesized and triangulated rather than "counted."

²⁹ See Appendix E for copy of the questionnaire.

ecosystem might be distributed across different localities and industry sectors. 240 individuals responded to the survey; 139 of which identified themselves as founders.

Phase 3: Validation + Additional Discovery: In-person Focus Groups

We conducted 11 in person focus groups across the region, covering each of the region's 11 localities, as well as one targeting underrepresented entrepreneurs and one for funders.³⁰ We listened to how the groups characterized the different elements of an entrepreneurial ecosystem and support systems, as well as how building support in their locality might look like.

Specifically, we asked the groups to describe and discuss:

- 1. What is it like to try to grow a business in their county?
- 2. What vision do they have for the business environment 10 years from now?
- 3. How might that vision be accomplished?

We listened for what rose to the surface as perceptions of the infrastructure for supporting startups in the locality.

Phase 4: Validation + Additional Discovery: Economic Development Directors from each locality review portrayal of the state of the elements of entrepreneurial ecosystems in their localities

Once we processed the data from Phases 1-3, we met with economic development directors from each Region 9 locality and asked for review and feedback on two items:

1. Our understanding/characterization of their locality with respect to the elements of an entrepreneurial ecosystem and/or support mechanisms for local entrepreneurs that we presented to them.³¹

³⁰ Some of the focus group sessions involved representatives of multiple counties. In all, we conducted 11 focus groups, including the one for funders, and one for underrepresented founders.

³¹ This list consisted of areas for recommendations we were considering having analyzed the data to that point.

2. Their view of how determinants (from the rubric) of successful entrepreneurial ecosystems look in their individual localities.

Below we outline our findings first in terms of themes relevant to supporting entrepreneurship region wide and then as identifiable gaps in what would represent a robust, regionwide entrepreneurial ecosystem. Before we do, let's clarify how we define and perceive some key concepts used in discussing the findings.

We use specific definitions of "Entrepreneurs", "Startups", "Founders", and "Traded Sectors"

To speak clearly about entrepreneurs regardless of locality, we must define what we are calling an "entrepreneur." The definition of an entrepreneur is elusive as there are many definitions for what entrepreneurship is. For our purposes, we will use an adaptation of the one Harvard Business School often uses, coined by one of their professors, Howard Stevenson:

Entrepreneurship is the pursuit of opportunity beyond resources controlled.³²

We take this to mean that an entrepreneur is someone who sees an opportunity to solve a problem or create a contribution to life that the marketplace appreciates, but without, at least initially, control over the human, financial, and environmental resources they will need to accomplish their goal. A successful entrepreneur is one who has the ability to attract, navigate and corral the resources necessary to build a venture from the idea stage. We use "startup" in this report synonymously with an entrepreneurial venture.

Another attribute that helps define an entrepreneur is that they are a "founder," one who is directly engaged in the creation of a venture. Typically, also, but not always, founders bring some level of *innovation* that distinguishes their startups from others in the marketplace. When innovation is encouraged, invested in, and rewarded, entrepreneurs feel more supported in starting, persisting with, and expanding young ventures. In this report, we use

³² See Entrepreneurship: A working definition. https://hbr.org/2013/01/what-is-entrepreneurship

"founders" interchangeably with "entrepreneurs" as we mean to isolate those who start companies through innovation or by identifying a key marketplace niche.

Further, for our purposes in this study, we differentiate between founders who create startups that can scale and become part of a "traded sector" (a group of companies that bring money to the region from outside the region and commonwealth) and those that create local, community businesses that may bring in some money from outside the region via tourists and commuters, but primarily service a local population. Both types of founders are critically important to the ecosystem and the local economy but are treated differently as they perform different economic functions and typically seek financing from different sources. We view them differently in this report so that each can receive support targeted to their needs. The divide we will use in the report is between "traded" sectors and "non-traded" sectors.

Revolutions in technology and the nature of work can aid in developing a region wide entrepreneurial ecosystem for Region 9

The desire to implement a right sized entrepreneurial ecosystem model for Region 9 arrives against a backdrop of changing concepts of work life (e.g., remote work) and the evolution of technologies (e.g., videoconferencing, cloud platforms) that support remote work and new ways of getting work done (e.g., AI assisted tools). Further, the "Amazon effect" that has socialized home delivery of everything from cars to groceries, has markedly widened the possibilities of where an entrepreneur can locate.

The combination of these developments suggests that "communities" of entrepreneurs can be increasingly defined by factors other than geography and that the retention of companies increasingly may depend on the quality of life a locality provides to individual entrepreneurs.

Multiple economic development directors we interviewed in the region point to an increase of residents moving into their localities working remote. The ability to work remotely can also facilitate collaboration of businesses across the region which is an important component of the recommendation we make at the close of this report.

The "grounding" of ventures is a primary consideration for how each locality, individually and jointly, will invest in startups

Understanding the "grounding" of ventures is critical to a locality as it relates directly to whether a venture, once it begins to mature, will stay in the locality (or region) enabling the locality to reap the economic and social rewards of any investment it's made to support the venture. Grounding also signals to other businesses that the locality is a place it, too, can mature.

Grounding, as we use it in this report, refers to the extent to which, on one end of the spectrum, a company is physically dependent on staying in a particular location or, on the other end of the spectrum, feels it can locate where it wants if it is more attractive to the founder and/or the business itself. For example, most farms are firmly grounded by location, while most tech companies are not. What would make the tech company, for example, grounded is a situation where the founders and their employees feel that they are thriving in place, and/or have forged deep roots in the locality and don't want to give that up.

We've seen examples of growing ventures that move from locality to locality within the region to those that move outside the region or move at least part of their operations outside the region. As part of a planning "toolkit" we've developed for this report (see Appendix), we've included different levels of grounding as a consideration for both the regional and local stakeholders when deciding how to build their startup ecosystems.

Appendix C - Locality Planning Toolkit

Below we present a planning toolkit to assist leaders in each of the region's localities to intuit the gaps that present themselves in their locality. While we have observed gaps in these areas across the region, with few exceptions (see "Gaps Observed" below), we also realize that how one interprets a "gap" may be different in each locality.

As mentioned at the outset of this report, it is our intent to bring to light the elements that would enhance the ecosystem for the region's startup founders and encourage robust innovation. Ultimately, we envision that the region can benefit from the rise of scalable, traded sector startups while building a reputation as a place where innovation happens amidst the preservation of the region's enduring quality of life.

To this end, we will highlight the gaps as they have been presented to us by our informants across the region but will leave it to leaders in each locality to identify what those gaps look like locally, and what that perspective inspires in terms of change. (Consider this the "interactive" portion of this report.)

The "toolkit" consists of a Gap Analysis Matrix and a Startup Support Planning Matrix, respectively. They are presented below.

The Gap Analysis Matrix

Below are featured the different elements ecosystem models identify as critical to supporting entrepreneurship. We include each locality so that when one is thinking about what takes place in their own locality, they can also envision what is taking place in others with which they would compare and/or contrast their own locality.

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| | INDIRECT IMPACT ON ENTREPRENEURSHIP PERFORMANCE CULTURE | | | | | | | | | | |
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| Government | | | | | | | | | | | |
| Schools | | | | | | | | | | | |
| Professional Orgs | | | | | | | | | | | |
| Social Orgs | | | | | | | | | | | |
| Storytelling | | | | | | | | | | | |

The Startup Support Planning Matrix

When planning how to inspire and grow startups, each locality should consider several characteristics about companies they have in their locality and which they may seek to attract. These considerations are important as they affect and are affected by local goals and sentiment.

- Stage of growth
- Origin of founders
- Growth/Revenue potential
- Origin/Source of Revenue
- "Grounding" in region
- Goals, sentiment, and vision of locality

These characteristics are outlined in the table below and the form each may take across the region As leaders and entrepreneurs, which do you have? Which do you want? What mix of types may work best for your locality?

| Category | Туре | Form | | | |
|---------------------------|---|---|--|--|--|
| | Startup | All | | | |
| Stage | Growing | All | | | |
| | Established | All | | | |
| Origin of Founders | Homegrown | All | | | |
| | Transplanted | All but Agriculture and Tourism | | | |
| | Scalable High Growth – | IT/Tech | | | |
| | Small Footprint (Physical | Biotech/Life Science/Med Tech | | | |
| | facility + "rooftops") | Business + Financial Services/Consulting | | | |
| | | Defense | | | |
| Growth/Revenue Potential | Scalable High Growth – Large Footprint (Physical | Food, Beverage, Agriculture | | | |
| | facility + "rooftops") | Manufacturing | | | |
| | Limited by space/land/infrastructure | Some agriculture, Tourism, Lodging | | | |
| | Local "support/ecosystem dependent" businesses | Restaurants, Retail, Personal Services | | | |
| Revenue Origin | Traded | IT/Tech Biotech/Life Science/Med Tech Manufacturing Business + Financial Service | | | |
| | Non-Traded | Restaurants, Retail, Personal Services | | | |
| | Firmly grounded | Agriculture, Tourism, Local support businesses | | | |
| Region Grounding | Moderately grounded | Manufacturing, Tech/Life Science if tied to UVA | | | |
| | Ungrounded | Tech, Life Science, Business + Financial | | | |
| | Urban/Dense | e.g., Charlottesville | | | |
| Community Goals, | Mixed | e.g., Albemarle, Culpeper, Fauquier | | | |
| Sentiment and Environment | Rural/Bucolic | e.g., Nelson, Louisa, Fluvanna, Greene, Orange, Madison, Rappa | | | |

Appendix D: List of Gracious Research Participants

We owe a debt of gratitude for the following individuals who, in addition to anonymous survey respondents, took time out of their day (many took time out of multiple days) to teach us about their localities and business environments. They represent **organizations** and **businesses** in the region. Their input formed the basis for the good work this report hopes to inspire for regional founders. (We apologize for any inadvertent omissions.)

Organizations

| Organization | Participant |
|--|---|
| 434 Accelerator | David Touve, Director |
| Albemarle County Economic Development | Ashley Perry Hernandorena, Business Retention and Expansion Developer |
| Albemarle County Economic Development | Elizabeth Hatcher, Administrative Assistant |
| Albemarle County Economic Development | Emily Kilroy, Director |
| Carlson Foley | Mary Foley, Founder |
| CAV Angels | Jim Cheng, Co-Founder |
| Charlottesville Angel Network (CAN) | John Brimacombe |
| The Charlottesville Business Innovation Council (CBIC) | Tracey Greene, Executive Director |
| Central VA Partnership | Candace Spence, Economic Development Director |
| Central Virginia Partnership for Economic Development | Helen Cauthen, Director |
| Central Virginia SBDC | Rebecca Haydock, Director |
| City of Charlottesville, Economic Development | Chris Engel, Director |
| Community Investment Collaborative | Carolina Medina, Director of Lending and Operations |
| Community Investment Collaborative | Stephen Davis, President |
| Community Investment Collaborative | Terry Woodworth, Rural Ecosystem Builder |
| Culpeper County Chamber of Commerce | Amy Frazier, President |
| Culpeper County, Economic Development Office | Bryan Rothamel, Director of Economic Development |
| Cville BioHub | Celia Castleman, Community Engagement Manager |
| Cville BioHub | Nikki Hastings, Executive Director |
| Fauquier Agriculture Development | Jim Hilleary, Agricultural Director |
| Fauquier County Chamber of Commerce | Alec Burnett, President |
| Fauquier County Economic Development | Beverly Pullen, Business Coordinator |
| Fauquier County, Economic Development Office | Doug Parsons, Director |

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| Organization | Participant |
|--|---|
| Fluvanna County, Economic Development Office | Jennifer Schmack, Director |
| GO Virginia, Region 9 | Christie Taylor, Grant Coordinator |
| GO Virginia, Region 9 | Shannon Holland, Director |
| Greene County Chamber of Commerce | Ashley Artale, President |
| Greene County, Economic Development & Tourism | Alan Yost, Director |
| Louisa Chamber of Commerce | Tracy Clark, Executive Director |
| Louisa County , Economic Development Office | Andy Wade, Director |
| Madison County, Economic Development Office | Tracey Gardner, Director |
| Mason Enterprise Center - Fauquier | Carlton Shutt, Director |
| Minority Business Alliance | Quinton Harrell, Director |
| Nelson County, Economic Development Office | Maureen Kelley, Director |
| New Hill Development Corporation | Yolunda Harrell, CEO |
| Orange Chamber of Commerce | Judi Cooper, Executive Director |
| Orange County, Economic Development and Tourism | Julie Perry, Director |
| Orange County, Economic Development and Tourism | Rose Deal, Director (Former) |
| Rappahannock County, County Administration | Bonnie Jewell, Assistant County Administrator |
| Rappahannock-Rapidan Regional Commission | Patrick Mauney, Executive Director |
| Rappahannock, County Administration | Garrey Curry, County Administrator |
| Thomas Jefferson Planning Commission | Christine Jacobs, Executive Director |
| Town of Culpeper, Economic Development | Paige Read, Director |
| University of Virginia, Darden | Mike Lenox, University Professor |
| University of Virginia, Weldon Cooper Center for Public Service | Terance J. Rephann, Ph.D., Regional Economist |
| University of Virginia, Weldon Cooper Center for Public Service | Joao Ferreira, Regional Economist |
| UVA Economic Development | Denise Herndon, Program Director |
| UVA Darden School of Business | Jim Zuffoletti |
| UVA Seed Fund | Bob Creedon |
| Venture Central | Rebecca Haydock, CEO |
| Virginia Economic Development Partnership | Barbara Kirkwood Taylor, Business Manager |
| Virginia Innovation Partnership Corporation (VIPC) | Meredith Hundley, Director |

Businesses

| Business | Participant |
|--|--|
| 1st Dominion Realty | Waki Wynn, Principal |
| Adovate | William Stilley, CEO |
| Agrospheres | Payam Pourtaheri, Co-founder |
| Apex Clean Energy | Sandy Reisky, Founder |
| Aqura Nicholson Coaching | Aqura Nicholson, Founder |
| Airlie Foundation and Conference Center | Josh Reichert |
| Atlantic Union | Ray Knott, Market President |
| Be You Mobile Photo Booth | Walter Johnson |
| BBQ X-change | Craig Hartman, Founder |
| Bio-Cat, Inc. | Mark Walin, Sr. Vice President of Business Development and Marketing |
| Bethel Builders | Laurie Nichols |
| Blessed with Words | James Culmer |
| BlueSkyPhoenix LLC | Michelle Coe |
| Box in Box Out | Peter Rice, Owner |
| Castle Hill Gaming | Arthur Watson, Co-founder and CEO |
| Chiles Enterprises | Wesley Chiles, Owner |
| Contraline | Kevin Eisenfrats |
| Cortado | Harry Dubke |
| Creation Appreciation Landscaping | Jeremy Parker |
| Culinary Concepts AB | Antwon Brinson, Founder |
| Cunningham Creek | Debby Deal |
| Davenport Strategic Innovation & Design | Sarad Davenport |
| Devils Backbone | Heidi Crandell |
| Dorazio Communications | Greg Dorazio |
| Erin's Elderberries | Erin Mann, Founder |
| GA-CCRi | Alan Johnson, Vice President of Business Development |
| Euro Composites | Sylke Heil |
| Gillian Valentine | Jill Grant |
| GovSmart | Brent Lillard |
| Hardware Hills | Andrea Nickels and Rob Nikels |
| Harris Hollow Foods | HB Wood, President |

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| Business | Participant |
|--------------------------------------|-----------------------------|
| Heart and Soul Fitness | Nicole Hawker |
| HeART of Nelson Collective | Carla Quenneville |
| Hartfield Foundation | Wendy Brown |
| Herbert's Wine Jelly | Carolyn Herbert, Founder |
| Hexagon Energy | Matt Hantzmon |
| Hudson Henry Baking Co. | Hope Lawrence, Founder |
| Humanitru | PJ Harris, Co-founder |
| Kyria Capital Management | Seth Chokel |
| Laser Thermal | John Gaskins, Founder |
| Local Eats | Amy Myers, Founder |
| Loudin Building Systems | Kevin Loudin |
| Louisa Arts Center | Karen Welch |
| Louisa True Value Hardware | Jeff Brown |
| Lumin (Coulomb Inc.) | Alex Bazhinov, Founder |
| Luminoah | Neal Piper, Founder |
| Mac and Mae | Airea Garland |
| Mad Arts | Janine Jenson, Founder |
| Mad Batter Bakery | Anna Prezioso |
| Madison Wood Preservers | Kari Gaviria, President |
| Market at Grelen | Leslie Gregg |
| Merchants | Chris Smythers |
| Mountain and Vine Vineyard | Elizabeth Sites |
| Mountain Run Winery | David Foster, Founder |
| National Filter Service | Chris Fairchild, Founder |
| Nest Realty/Blue Ridge Life Magazine | Yvette Stafford, Founder |
| Not Yet Ventures | Alex Zorychta, Founder |
| Nurturing Hands Companions | Sharonda Hawkins |
| OESH Shoes | Dr. Casey Kerrigan, Founder |
| Old Bust Head | Ike Broaddus, Owner |
| Old Trade | Sara Thayer |
| Orcada Media Group | Scott Bricker |
| PAD A Cheek | Karen Moore, Founder |
| Paint it Orange | Jess Cifizzari, Co-founder |
| Patch Brewery/Hop on Tours | Andre Xavier, Co-founder |
| Patriot Industries | Tom Click, Founder |
| Pearl Island Foods | Zakiah Pierre |

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| Business | Participant | |
|--|--|--|
| Performance Signs | Katherine Morris, Co-founder | |
| Precision Machine Works | Roger Fincher | |
| PS Fertility | David Manke, Co-founder, COO | |
| QDS Capital | Bill Porter | |
| Quaker Hill Farm | Charles Rosson | |
| Relish | Sarah Rumbaugh, Co-founder | |
| Renback Barn | Katelynn Falk, Co-founder | |
| Renee's Boutique | Crystal Napier | |
| Revalation Vineyards | Francoise Seillier-Moiseiwitsch, Founder | |
| Rhoback | Kristina Loftus, Co-founder | |
| Ronnie's Beauty and Barber Salon | Ronnie lenesta | |
| Round House Vineyard & Gardens/Beef | Daryl Morse, Partner | |
| Round House Vineyard & Gardens/Beef | Zachary Morse, Founder | |
| Saunders Brothers Farm | Jim Saunders | |
| Scanoptix | Arjun Dirghangi, Co-founder | |
| SemperGreen | Oscar Warmerdam | |
| Shenandoah Crossings | Melanie Baker | |
| Silk City Printing | Mark Summers | |
| Silver Branch Brewing Company | Christian Layke | |
| Silver Chair | Thane Kerner | |
| Silver Creek Orchards | Ruth Saunders, Owner | |
| Sliced Cake Bar | Megan Watson | |
| Sliced Cake Bar | Rock Watson | |
| Solar Tiger | Russ Edwards, President | |
| SPARC Research | Pat Hewitt, Founder | |
| Spire Collective (formerly StoreYourBoard) | Andrew Mavraganis, President | |
| Strategic Alliance | Ken Lukonis | |
| Studio Lux | Brandi Norrell | |
| SunTribe Solar | Devin Welch, CEO | |
| Swyft Transportation | Darius Wynn | |
| Tectonics Builders | Justin Crandall | |
| The Boxley Place Inn | The Boxley Place Inn | |
| The Tulle Box | Kate Bryne | |
| The Virginia Chutney Company (Turner Foods) | Oliver Turner, Founder | |

| Business | Participant |
|-----------------------------|---------------------------|
| Viva La Nosh | Renata Miller |
| Thompson Auto Repair | Donny Thompson, Founder |
| Three Ridges Consulting | Greg Truslow |
| Three Ridges Touring | Laura Wolf, Owner |
| TradeCentric (PunchOut2Go) | Brady Berhman, Co-founder |
| Traxyl | Stephen Carter, Founder |
| Тгахуl | Daniel Turner, CEO |
| Two Labs Coffee | Cat Gardner, Founder |
| Veritas Vineyard and Winery | George Hodson, Founder |
| Virginia Bison | Rob Ferguson, Founder |
| Virginia Diodes | Gerhard Schoenthal, COO |
| Vistaly | Matt O'Connell, CEO |
| William A. Cooke, Inc. | Randall Tingler |

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Appendix E: Survey Questionnaire

Welcome to Our Regional Survey of Entrepreneurship

Thank you for participating in our survey. Your feedback will help local, Central Virginia organizations better serve you and your peers who are starting and growing businesses.

The information we're asking you to supply is critical to understanding how entrepreneurs best develop and grow in our region.

YOUR RESPONSES ARE ANONYMOUS -- AT NO TIME WILL YOUR RESPONSES BE ASSOCIATED WITH YOU OR YOUR COMPANY. We ask therefore that you be honest, thoughtful, and accurate with your responses.

As a survey participant, you will benefit from a report of the survey results when they are released this summer. (You'll be provided with an email address to request a copy if you wish at the end of the survey.)

The survey should take no longer than 10-15 minutes to complete. Thank you again for your time and participation. You're helping businesses in your region and county develop in ways most productive for local residents.

| 1. Which of the following describes you? (Select all that apply,) |
|---|
| I own and operate a business or am a part owner of a business |
| I used to own and operate a business but no longer |
| I want to open and operate my own business but don't currently own a business |
| I am a leader in a companyworking on behalf of founders or prior founders |
| I work in an economic development office or chamber of commerce |
| I work for an entrepreneurship support organization |
| I work as an academic studying business or economic issues |
| Other (please specify) |
| |

2. Please check all that apply to you:

| Male |
|--------------------------|
| Female |
| Non-Binary |
| Veteran |
| Service Disabled Veteran |
| Spouse of Veteran |
| Member of Reserve |
| Asian |
| Black |
| Hispanic |
| Native American |
| Pacific Islander |
| White |
| None of the above |

Please tell us a few things about your company or organization.

3. Where is the headquarters for your business?

- Albemarle County
- Charlottesville City
- Culpeper County
- Fauquier County
- Fluvanna County
- Greene County
- 🔵 Louisa County
- Madison County
- 🔿 Nelson County
- Orange County
- Rappahannock County
- Other (please specify)

4. What is the main industry in which your company operates?

🔵 Food or Beverage Manufacturing, Agriculture, or Agri-tourism

- Business Services or Financial
- Technology
- Bio Tech/ Life Science
- Light Manufacturing
- 🔿 Retail or Foodservice -- Physical Location or online
- Business supply physical location or online
- Trades (e.g., plumbing, electrical, auto repair)
- Other (please specify)

5. Which of the following is true about your company (Select one.)

- I founded the company myself
- I founded the company with partners
- I purchased an existing business
- () I did not found the company, but am in a management/leadership role (e.g., executive)
- I did not found the company my role is not a leadership role

6. Which of the following best describes what inspired you to start your own business?

- I developed a technology or product concept while at a university that requires licensing from the university
- I developed a technology or product concept while at a university that DOES NOT require licensing from the university
- \bigcirc I developed a technology or product outside a university designed to scale with proper funding
- \bigcirc I developed a business in a profession/industry that I've worked in and have gone out on my own
- 🔿 I started a business I hope to grow as an alternative to working for someone
-) I came to the area to live and started a company that enabled me to do that
- Other (please specify)

7. Which of the following are reasons you're an entrepreneur? Choose up to 3 as your top choices.

| Fill a needed gap in my community |
|---|
| Help people |
| Attain financial independence for myself and/or my family |
| Attain financial security for myself and/or my family |
| Make an impact in the world that will leave a legacy |
| Share my talents |
| Express my values |
| Connect with community of peers |
| Advance greater society in some way |
| Advance my local community in some way |
| Make as much money as possible |
| Other (please specify) |
| |

8. Which of the following best describes your goal for your business?

- \bigcirc Grow as big as possible
- \bigcirc Grow to a comfortable level for my life
- \bigcirc Keep the same
- \bigcirc Reduce where I can
- O Sell/Exit
- Other (please specify)

9. The following are possible reasons why you may locate your business where it is today.

Choose up to 3 from the list that are most important reasons for you.

| Quality of life where I live and work |
|---|
| Talent qualified workforce |
| Favorable incentives or support from local government |
| Space that is best suited for my business |
| Cost of space for my business |
| Support from business ecosystem (e.g., peers, advisors, business groups, meetups) |
| Pool of customers for what my business offers |
| Simply to work where I live |
| Physical resources (e.g., land, infrastructure) |
| Strategic location (e.g., near shipping, important population centers, etc.) |
| Cost of running my business |
| |

10. When you evaluate if you're being successful as an entrepreneur, what are the most important measures you use? Below are some that others might use. Please rank them for yourself. Use "1" to indicate the MOST important, and "6" to indicate the LEAST important.

| ≣ | I'm building a business that will scale and provide a very lucrative exit strategy (e.g., IPO, Acquisition) |
|---|---|
| ≡ | I'm impacting my community, the world, or people with specific problems by providing a novel solution |
| ≣ | I'm enabling myself to live where I want to live |
| ≣ | I'm expressing my values and/or talents |
| ≣ | I'm earning a living independent of an employer |
| ≣ | I'm creating good jobs for local employees |

Below are very important questions about your company that will help us understand the needs of your business and business community. Again, at no time will these responses be associated with your or your company as you are responding anonymously. Please answer as accurately as you can, but feel free to approximate where necessary.

When responding, please use WHOLE NUMBERS without decimals, and please NO DOLLAR SIGNS. Be sure to check the number as it could be easy to add or subtract a zero when you didn't mean to. Thank you!

11. How many years ago was your company founded?

12. How many full-time employees does your company have?

13. What is the approximate average annual salary of your full time employees? (Whole number, no dollar sign)

14. How many part-time employees does your company have?

15. Approximately what percentage of your full or part time employees live in your county? (Whole number between 0 and 100 - no % sign please).

16. Approximately what percentage of your employees live in Virginia? (Whole number between 0 and 100 - no % sign please).

17. What is your company's approximate annual gross revenue (rounded to nearest dollar. No \$ sign please.)?

18. What is your company's approximate net revenue (rounded to nearest dollar)?

19. What percentage of your revenue would you estimate comes from customers OUTSIDE of Virginia? (Whole number between 0 and 100 - no % sign please).

20. Which of the following, if any, are needs your business has right now? Select a choice or choices even if you can't presently afford them (Select all that apply.)

| Consultant to help with strategy |
|---|
| Consultant to help with recruiting talent |
| Financing (e.g., loan, grant) |
| A peer group of founders or business owners with whom I can exchange ideas |
| Skilled employees - talent |
| Space that is better suited to my business |
| Guidance on how to get my product or service to market |
| Guidance on how to sell my product or service internationally |
| Guidance on how to run my business (e.g., accounting, human resources, marketing, technology) |
| Guidance on how to manage my business finances |
| Guidance on expanding my reach to target customers |
| Guidance exploring additional markets for my product |
| Guidance working with local and/or state licenses/regulations |
| Other (please specify) |
| |
| |

None of the above

21. What business or support services, if any, are missing in your community (Select all that apply.)

| Adequate office space |
|--|
| Adequate manufacturing space |
| Funding from investors |
| Funding from grants |
| Consultants that can help me understand how best to run my business |
| Consultants in the industry or field my company operates in |
| A community of business peers that I can share ideas and/or resources with |
| An entrepreneurial culture or mindset |
| Talent qualified workers or leaders |
| Support from local government (e.g., Board of Supervisors) |
| Support from businesses organizations (e.g., Chamber of Commerce, Industry groups) |
| Other (please specify) |
| |
| None of the above |

22. Have you ever had your buisness enrolled in an incubator or accelerator?

Incubator - organization designed to develop businesses in their initial stages and often provide mentorship, minor funding, office space, and a community of other entrepreneurs.

Accelerator - organization designed to develop businesses once they have their initial product, service, and market defined and they are ready to test the market. Provides similar support as an incubator, but typically more advanced mentorship and greater funding.

) Both

🔵 Neither

23. Before today, which of the following organizations were you familiar with?

| | Never heard of | Heard of, but not very familiar | Familiar | Wanted to work with them, but couidn't | Have worked directly with them |
|---|----------------|------------------------------------|------------|--|--------------------------------------|
| Community Investment Collaborative (CIC) | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Small Business Development Center (SBDC) | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Venture Central | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Charlottesville Business Innovation Council (CBIC) | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Cville BioHub | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Virginia Department of Economic Development (VDED) | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Virginia Economic Development Partnership (VEDP) | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Virginia Innovation Partnership Corporation (VIPC) | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Central Virginia Partnership for Economic Development (CVPED) | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| New Hill Development Corporation | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Central Virginia SCORE | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| UVA Licensing and Venture Group | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Virginia Bio | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| UVA iLab/Venture Lab Incubator | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Catalyst/434 Accelerator | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |

24. Have you received any of the following financing options for your business?

| | Yes | No | Wanted to but couldn't | |
|--------------------------------|------------|------------|------------------------|--|
| SBA Loan | \bigcirc | \bigcirc | \bigcirc | |
| Angel Investment | \bigcirc | \bigcirc | \bigcirc | |
| Venture Capital Investment | \bigcirc | \bigcirc | \bigcirc | |
| Local government grant | \bigcirc | \bigcirc | \bigcirc | |
| State of Virginia grant | \bigcirc | \bigcirc | \bigcirc | |
| Federal grant | \bigcirc | \bigcirc | \bigcirc | |
| Non- SBA Bank Loan | \bigcirc | \bigcirc | \bigcirc | |
| Private loan | \bigcirc | \bigcirc | \bigcirc | |
| Commercial development loan | \bigcirc | \bigcirc | \bigcirc | |
| Other (please specify) | | | | |

25. Do you envision relocating your business at any point?

- 🔵 Yes
- 🔵 No
- Maybe

26. You indicated that you might think about moving your company at some point. What would be the reasons you might move your company?

| Not enough | space | where | I | am |
|------------|-------|-------|---|----|
| | | | | |

Lack of talent/difficulty recruiting

Lack of community of entrepreneur peers

Want to live somewhere else

Other (please specify)

None of the above

27. Do you export your goods or services? (Select all that apply/)

Outside of Virginia
Outside the U.S.

Neither

28. You indicated that you currently don't distribute your goods or services outside of Virginia. Would you be interested in doing so?

🔵 Yes

🔿 No

29. You indicated that you do not export your goods or services outside of Virginia, but would like to. Which of the following, if any, are reasons you don't?

| Product or service is primarily local in nature |
|---|
| Need a plan |
| Need funding |
| Need more production capacity/inventory |
| Need more staff |
| Other (please specify) |
| |
| None of the above |

30. You indicated that you do export your products or services outside of Virginia. What, if anything, would help you in the short term to increase your exported goods or services?

| Consultant on how to distribute nationally |
|---|
| Consultant on how to distribute internationally |
| Connections with distributors or marketing partners |
| Business expansion |
| More funding |
| Training |
| Market research for additional markets/customers |
| Other (please specify) |
| |
| |

None of the above

| | Very weak | Weak | Ok | Strong | Very strong |
|---|------------|------------|------------|------------|-------------|
| Finance and accounting | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Leadership | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Marketing | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Sales | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Strategy or strategic planning | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Project management | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Producing quality product or service in my industry/field | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Legal planning and protection | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |

31. Rate your business' current capabilities in the following areas:

32. You indicated that you are weak in the following areas. What is the first step you took (or will take) to address those needs?

| | Contacted a support organization (e.g., SBDC, CIC) | Contacted my county's economic development office | Sought out private consultants | Took classes tried to learn on my own | Asked peers or mentors for help | None of the above |
|---|--|---|--------------------------------------|---|---------------------------------------|-------------------|
| Finance and accounting | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Leadership | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Marketing | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Sales | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Strategy or strategic planning | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Project management | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Producing quality product or service in my industry/field | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |
| Legal planning and protection | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc | \bigcirc |

33. Do you attend events for, or have you used the services of, any of the following?

Entrepreneur Support Organizations (e.g., trade groups, business organizations)

Chamber of Commerce

Peer group of business owners

Meetup groups

Local economic development office

Other (please specify)

None of the above

34. In the past 2 years, have you attended or participated in any of the following?

| Industry association meeting |
|--|
| Local business meeting with speakers |
| Meeting that presented grant or tax incentive options from the State of Virginai |
| CIC courses of advisory programs |
| SBDC advisory sessions |
| Private or group session with a consultant from your industry |
| Sessions with an executive coach |
| SCORE advisory session |
| Other (please specify) |
| |
| None of the above |

35. Which of the following are key metrics you use for the health of your business? Choose the top 3.

| Growth |
|------------------------------------|
| Market share |
| Customer satisfaction |
| Employee satisfaction/low turnover |
| Name/Brand recognition |
| Community recognition/accolades |
| Industry recognition/accolades |
| Other (please specify) |
| |

None of the above

We're interested in learning what works and doesn't work for business in your county. Please answer the following questions to the best of your ability from your own perspective or based on what you may hear from others.

36. What are the biggest contributors to success for an entrepreneur in your county.

37. What are the biggest obstacles, if any, to success for an entrepreneur in your county.

38. Do you have an interest in starting your own business, or another future business different from the one you now own, with or without partners?

O Yes

🔵 No

Maybe

39. Do you have an interest in starting a business in any of the following areas. (Select any that apply.)

| Manufacturing |
|------------------------------|
| Biotechnology |
| Technology |
| Food and Beverage Production |
| Online Retail |
| Agri-tourism |
| Other (please specify) |
| |
| None of the above |

40. Which of the following, if any, do you believe would be required for you to start the business you have in mind?

| Funding - Loan |
|-----------------------------------|
| Funding - grant |
| Mentoring on my industry or field |
| Mentoring on running a business |
| Other (please specify) |
| |
| None of the above |

41. We are interested in learning as much as possible about what works and does not work in your business community. Is there anything else you would like to share that was not covered on this survey or that you wish to emphasize?

| 4 |
|---|

Thank you for participating in this survey. If you would like to receive a copy of the survey results (estimated June 2024), please write to the following email address ______ and put "Survey Results Request" in the subject line.

Thank you again for your time and input!