



UNIVERSITY
of VIRGINIA

JEFFERSON
INNOVATION
SUMMIT



Accelerating Innovation in the Commonwealth

PLAYBOOK AND RECOMMENDATIONS FOR ACTION

• FALL 2025 •

Executive Summary

THE COMMONWEALTH OF VIRGINIA is experiencing a surge in private and public investment in entrepreneurship, particularly in technology, defense, and life sciences. More than 10,000 new high-growth, high-wage startups were created in 2022 and 2023 with the Commonwealth ranked within the top 10 states for venture capital investment. This is the highest ranking the state has received in 15 years.ⁱ In 2024, Virginia was recognized as the best state for business.ⁱⁱ

This recognition comes in part from the growth of key entrepreneurial hubs in Northern Virginia, Charlottesville, and Richmond. Universities in proximity to these hubs provide access to top-tier talent and play a critical role in creating new intellectual property and transferring technology to support the formation of new ventures. The Commonwealth's universities are among the top 100 patent-issuing academic institutions in the country.ⁱⁱⁱ

Recognizing this opportunity, a new Lab-to-Launch initiative was recently announced by Governor Youngkin with the goal of increasing the number of startups that spin out from six R1 research universities. The initiative will also bring them together to identify and share best practices in support of growing research commercialization efforts in the commonwealth.

The continued growth of Virginia's entrepreneurial ecosystem depends not only on supporting activities within these hubs but also on our collective ability to spread investment and innovation to all regions in the Commonwealth. What is our aspiration as a state? What are the challenges faced in more rural regions? What is the role of universities in the ecosystem? How do we connect efforts across the state and work together to accelerate innovation across the Commonwealth?

Twenty-two delegates representing every region explored these questions during the 2025 Jefferson Innovation Summit on April 18, 2025, in Charlottesville, Virginia. UVA Innovates and UVA Darden's Batten Institute for Entrepreneurship, Innovation and Technology hosted the event in partnership with the Virginia Innovation Partnership Corporation (VIPC) and the Tom Tom Foundation. A list of delegates is provided at the end of this document.

The Summit brought together entrepreneurs, investors, entrepreneurial support organizations (ESOs), state government officials, university administrators and academics, corporate and nonprofit leaders, and Chamber of Commerce representatives to discuss how best to advance innovation across the Commonwealth.

Outlining the Challenges

The day started with an open dialogue among the delegates on some of the challenges faced in building entrepreneurial ecosystems within their respective region and/or industry. Challenges shared included:

- The geographic distance between state actors makes collaboration difficult.
- Entrepreneurs need better avenues to access workers with operational expertise.
- Faculty founders have technical expertise, but not entrepreneurial expertise, and the technology transfer and commercialization process within universities is slow.
- The current ESO model is unsustainable. ESOs focus on building local communities, versus individual ventures which is the investor focus.
- Resources for entrepreneurs are disparate and confusing.
- Corporations have a vested interest and can play a role in incubating new ideas but are unsure where and how to best plug into the ecosystem.

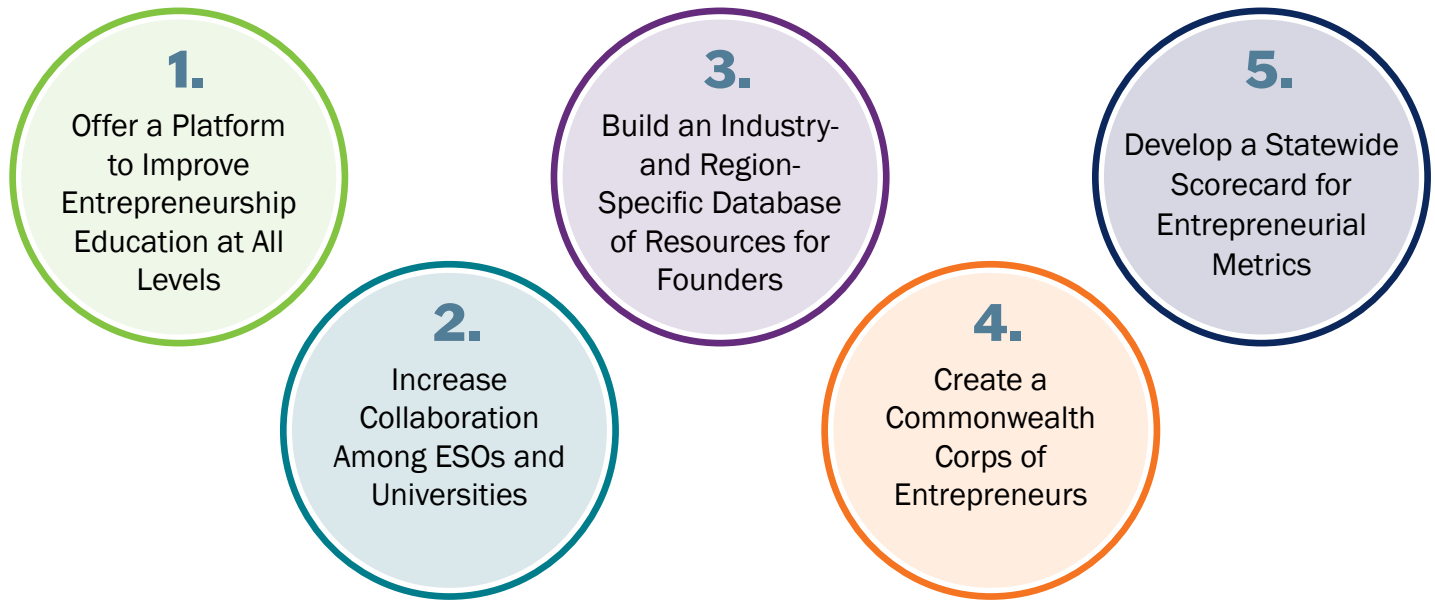
Developing Ideas

Building on the morning discussion, delegates then generated more than 150 ideas for addressing these challenges with the shared goal of accelerating innovation. Small groups were formed to allow delegates to discuss these ideas, ultimately choosing three concepts each for a total of 15 concepts.

Identifying the Top Five Actions

In a voting exercise, the delegates were asked to identify the concepts that they believed had the greatest potential for wide-scale impact and merited further exploration. The proposed actions presented in this playbook represent the top five:

Our hope is that leaders in both the public and private spheres will be inspired to take on these new ideas and work in partnership with universities to mobilize the investment and workforce needed for deployment.



15 Concepts that emerged from small group discussion:

- 1.** Strengthen VA connections and strategic alignment by building an interactive website.
- 2.** Unlock restrictions of university endowments to fund entrepreneurship initiatives, basic research, and spin out creations.
- 3.** Incentivize entrepreneurship in universities at all levels (undergrad, grad, faculty).
- 4.** Strengthen regional clusters of excellence and network the clusters state-wide. Seed each cluster with a university partner and a promising late-stage startup.
- 5.** Launch or attract institutional VC funders to ride cluster-specific horses to become unicorns.
- 6.** Up-level and scale entrepreneurship education at all levels to be great operators.
- 7.** Make it easier to become a founder through state-funded access to health care and education.
- 8.** Enhance state coordination and funding for ESOs so they spend less time chasing money and more time helping companies.
- 9.** Improve corporate and industry engagement: organizations that benefit from the work should contribute to it.
- 10.** Map a database of existing entrepreneurial resources in Commonwealth (e.g., ESOs, programs, industry partners, etc.).
- 11.** Fast track from ideation to patent by establishing a statewide IP office with AI searchable database.
- 12.** Provide educational roadmap for all students (pre-K through college) and training for educators, faculty, and counselors.
- 13.** Mobilize entrepreneurial talent to support under-resourced VA communities through founder residencies and innovation mentorship.
- 14.** Reform public investment strategy by enabling innovation bonds, expanding tax credits, and shifting funding from regionalism to impact-based allocation.
- 15.** Create a unified platform that equips founders with tools, resources, and connections to launch and grow ventures across the Commonwealth.

1. Entrepreneurship Education Platform

THE CONCEPT: Create an online platform that provides vetted teaching and learning materials for students at all levels (pre-K through college) and convene an annual workshop bringing school administrators and educators together from across the Commonwealth to improve the practice of teaching entrepreneurship.

Entrepreneurial mindset and skill set are learnable—and proactively doing so is vital to thrive in our increasingly dynamic, unpredictable, and competitive world. During uncertain times, it can provide financial resilience and a sense of agency over one's destiny. According to the U.S. Department of Treasury, the country averaged 430,000 new business applications per month in 2024, which is 50 percent more than those filed in 2019 (pre-Covid).^{iv}

High school graduates are increasingly choosing career pathways that forgo college. Contributing factors include rising tuition costs, shifting attitudes towards the value of a bachelor's degree, and increasing wages for jobs that do not require one. In the U.S., enrollment of high school graduates in college has declined since its peak in 2009; from 70.1% to 62%.^v Many of these graduates are going on to start new ventures. It's estimated that 15% of new businesses are started by people who do not progress beyond a high school diploma.^{vi}

Historically, attending college provided a competitive advantage but the landscape has changed. The New York Federal Reserve reports that during the first quarter of 2025, the unemployment rate for recent college graduates was 5.8%, which is higher than that for the general population.^{vii} Economic uncertainty is making companies pause before hiring college graduates and AI's ability to do entry-level work is negating jobs previously filled by recent graduates.

Learning how to navigate ambiguity is a central part of entrepreneurship education. Students who develop entrepreneurial skills as early in their learning journey as possible are better positioned to stay nimble. We also know that entrepreneurship education can be uniquely engaging for many students—and can accelerate an applied, multidisciplinary education.

There is growing recognition in academia of the importance of teaching entrepreneurship at all levels of schooling. The Carl D. Perkins Career and Technical Education (CTE) Act requires that states offer entrepreneurship education in their high school CTE programs. Although the CTE Act does not require it for graduation, 27 states have reported entrepreneurship as a topic within a required course. Virginia is part of this cohort. Many colleges and universities across the Commonwealth recognize the value of entrepreneurship, with a range of offerings from online courses, electives, and degrees to devoted centers, incubators, and grant programs.

Yet curriculum is often fragmented, outdated, inaccessible, and limited to select (often the most selective) programs and schools. These challenges can be addressed by encouraging and incentivizing modern, consistent, high-quality experiential entrepreneurship education in K-12 and higher education through access to professional development, improved curriculum, and an intrastate-connected ecosystem of resources.

RECOMMENDATION: Empower state university partners to develop materials for inclusion in a statewide Entrepreneurship Education Platform. In partnership with university partners, pilot an annual educational event.



REAL-WORLD EXAMPLE

A paper published in the **Strategic Entrepreneurship Journal** shares results from 20+ years of early entrepreneurship education in Denmark. Students that received the education in high school were 40% more likely to launch revenue-generating ventures after graduation. The quality of ventures wasn't diluted—these startups performed just as well as others, even in tough economic times.

2. Virginia Entrepreneurship Network of Universities

THE CONCEPT: Enhance coordination and collaboration among entrepreneurial support organizations (ESOs) including University-sponsored ESOs.

Community ESOs are an important player in the innovation ecosystem. These organizations are often strategically located in regions that require more boots on-the-ground assistance. They offer programming, mentorship, networks, and in some cases direct funding opportunities to startups with the goal of supporting founders to develop and scale new ventures within their respective regions.

While laser-focused on supporting ventures in their own local ecosystem, ESOs benefit greatly from the sharing of resources across regions. The VIPC Virginia Accelerator Network (VAN) is a consortium of nonprofit ESOs that supports early-stage, innovation-based startups. VAN provides a space for peer-to-peer networking, technical assistance, and best-practice sharing among nonprofit ESOs in the Commonwealth.

Universities are important contributors to the Commonwealth's innovation ecosystem; yet often efforts to incubate and accelerate student- and faculty-led ventures are siloed and fall short of providing the connections and support needed post-graduation to incentivize founders to stay in-state. Creating a broad network for coordination between university-sponsored ESOs and with other state-funded initiatives like VAN could provide a stronger and more connected state-wide support system, incentivizing new ventures to continue to build their businesses in the Commonwealth.

A Virginia Entrepreneurship Network of Universities could be created that brings state-funded universities together with the same intention and aspirations as VAN. There are some natural areas of alignment between these networks that will benefit all stakeholders in the ecosystem.

Universities can bring research and proven frameworks to ESOs in areas like non-profit management and entrepreneurship education. For example, UVA Darden hosts the Strategic Insights in Nonprofit Management Conference, which convenes non-profit organizations to learn from faculty on critical topics like capacity building, budgeting, and performance management. Universities also offer expertise outside of the Commonwealth that might be beneficial to ESOs. Community ESOs can partner with university-sponsored ESOs to provide a pathway for student founders to continue working on their ventures in-state. ESOs can also serve as a connector between university and community. Founders will appreciate a greater awareness and availability of investment and programmatic support across the state.

The result is a more connected, informed, and collaborative innovation ecosystem with a shared mission to grow innovation in the Commonwealth.

RECOMMENDATION: Create a Virginia Entrepreneurship University Network, hosting regular meetings among university members and an annual meeting with VAN members.



REAL-WORLD EXAMPLE

VAN ESO partners provide a range of low-cost and free services to the founders of potentially high-growth companies in Virginia. This work includes assisting in company creation, providing expert business assistance, facilitating and/or making direct investments, professional coaching and mentoring, and speeding the commercialization of technology into the marketplace.

3. Industry-Focused Entrepreneurship Resources Database

THE CONCEPT: Create an easily accessible digital map of existing entrepreneurial resources in the Commonwealth (e.g., ESOs, programs, industry partners, etc.).

Several resources exist in Virginia that aim to guide founders on their entrepreneurial journey. VIPC provides resources for funding, acceleration, mentoring, and other support services to entrepreneurs, including a “Small Business Startup, Entrepreneur, and Innovator Opportunity” guide. The Business One Stop website, maintained by the Virginia Department of Small Business and Supplier Diversity, provides resources needed to plan, develop, and expand a business. At some point along their journey entrepreneurs need funding to scale their venture and finding the right networks and sources of capital can be a challenge. Similarly, it can be difficult for investors to find new ventures that align with their interests.

Funding is only a part of what entrepreneurs need to grow a business. As ventures scale, founders also need employees and in many cases lawyers, brand specialists, and business leaders. Many incubators and accelerators provide access to experts in their own network but there is no central repository that provides these critical connections across all regions and industries. Universities are also an important player in the entrepreneurial ecosystem with technology transfer offices (TTOs) focused on bringing faculty research and innovations to investors. Bringing all these resources together would benefit all actors in the ecosystem.

Over the last decade, there have been efforts to create a statewide database that provides these connections, including most recently the Virginia is for Entrepreneurs (VA4E) initiative. Created in 2017, the goal of the VA4E website was to match investors and entrepreneurs across Virginia based on needs and interest. The initiative is no longer operational, but the idea of a matchmaking database has merit.

In theory, a central Commonwealth entrepreneurial ecosystem database could be designed to support the entire customer journey from idea to fundraising to licensing and beyond. The user could answer a series of questions that allows the system to automatically match resources that meet the user’s needs. Users of the database would sign up, create profiles, browse, and connect with potential matches. The database could combine user-defined preferences with an algorithm to suggest these matches. Further, it could sort the matches based on region or locality.

To be successful, the statewide database must be easily scalable to achieve the right network effect, i.e., increasing in value the more people that use it. It also needs to be self-sustaining and profitable, and it should help to unlock access to underserved and hard-to-reach regions.

Yet, a significant barrier to previous attempts was the difficulty of managing and sustaining such an extensive database longer term. Industry-focused databases hold more promise.

RECOMMENDATION: Build databases that provide industry-focused entrepreneurship resources that align with one or two of the targeted industries in the Commonwealth Research and Technology Strategic Roadmap.



REAL-WORLD EXAMPLE

Virginia Bio-Connect is a multi-regional database designed to increase connectivity and awareness of the existing programs, resources, and communities in Virginia’s life sciences industry. The website provides resources depending on venture stage, industry focus and type of resource needed (including local experts) as well as a Workforce Hub for connecting talent with companies.

4. Commonwealth Entrepreneur Corps

THE CONCEPT: Mobilize entrepreneurial talent to support under-resourced Virginia communities through founder residencies and innovation mentorship.

While entrepreneurship networks are steadily growing in densely populated and well-resourced regions of the Commonwealth, remote communities often struggle to access the resources needed to support and scale new business ventures. Capital investment, entrepreneurial expertise, and talent are harder to find in these regions. Yet, these parts of Virginia hold promise for targeted economic development.

Regions such as Southwest Virginia, Southside, and rural Chesapeake Bay have seen core industries — coal, tobacco, and fishing — dissipate and with it, significant declines in population and economic activity. At the end of World War II, 14% of Virginians lived in the Southwest and 43% lived in rural counties overall. Today, those figures are 4% and 14%.^{viii} As the country shifts away from manufacturing and general laborer jobs, these regions have struggled to create new jobs in high-paying, high-growth industries, such as finance or tech.

However, there is some data that suggests that market conditions are changing, and these regions are ripe for investment. According to a report released by UVA's Weldon Cooper Center for Public Service, the number of people moving to remote areas has increased since the COVID pandemic. Lower housing prices and the ability to work remotely have contributed to this shift. Interest in entrepreneurship in these regions is also growing. According to the report, between 2019 and 2023, the number of new business applications submitted to the IRS experienced the largest increase in the Southwest and Chesapeake regions.^{ix}

Yet, at the same time, some of these regions, like the Southwest, continue to report high poverty rates, low levels of education attainment, and low levels of innovation and economic growth. Efforts to spur innovative activities — pitch competitions, incubators, mentoring, and seed funding — have helped to stand up small businesses but

fall short of what's needed to grow and scale big ideas into bigger companies able to attract more investment and provide high-quality jobs to communities.

Entrepreneurship resources are not evenly distributed across the Commonwealth and these communities need help growing, feeding, and maintaining their innovation ecosystems. How can we bring expertise and other resources from more resource-rich areas of the state to these regions in a way that results in sustainable, longer-term growth?

It starts with building connections through the creation of a regional pipeline of knowledge-based resources. It will also require a commitment to be physically present to build relationships and trust within those communities. Universities can play a significant role as providers of education, mentorship, and student internships, either through direct relationships or in partnership with ESOs. The end goal is knowledge transfer and talent retainment through targeted and personalized programming that meets specific regional needs.

RECOMMENDATION: Secure state and private sector funding to scale up university support for entrepreneurs in these under-resourced VA communities through internships, classes, and venture development under a Commonwealth Entrepreneur Corps.



REAL-WORLD EXAMPLE

The **UVA Batten School** offers students internships and year-long fellowships in the Appalachian region through the **Tadler Program on Impact Investing**. The program allows students to travel to the region, working with impact investors to direct capital toward social entrepreneurs with the goal of transitioning the economy from coal to new industries.

5. Virginia Statewide Metrics Scorecard

THE CONCEPT: Improve Virginia’s public investment strategy by defining clear, consistent, and effective metrics that help meet state economic development goals.

Virginia state-funded grant vehicles, primarily via VIPC’s Regional Innovation Fund (RIF) and GO Virginia funds, seek to support, strengthen, and grow Virginia’s innovation ecosystem. Funding is provided using state taxpayer dollars with the goal of broad economic development and creating more high-paying jobs in the Commonwealth. As such, it is critical that the funding is tied to metrics that ensure transparency, accountability, and impact.

ESO operations are dependent largely on these state-sponsored grant programs. These programs require the ESOs to provide a 1:1 match of funding from non-state sources, such as federal or local governments, foundations, and private corporations. RIF provides funding to science and technology startups in growth industries and sectors, including those in the current Commonwealth Research and Technology Strategic Roadmap. GO Virginia has a broader mandate with target industries chosen based on the sectors with the most promise for growth within the nine GO Virginia regions. GO Virginia also requires that at least 20% of the total match must be contributed by participating localities.

State-funded grant programs are required to include certain metrics as mandated by the General Assembly, via the state budget. Additional performance management metrics are then added at the discretion of the program. Expanding the number and complexity of metrics provide state leaders with greater insight into the economic impact of funding vehicles yet they can confuse and increase the burden on the ESOs required to report. Further, metrics intended to measure impact and success such as “number of jobs added” and “amount of capital raised” may be duplicative and ineffective to determining longer term success.

In 2022, a review by the Joint Legislative Audit and Review Commission of the GO Virginia program

suggested that while the program appeared to have positive regional economic impacts, the “outcomes data reported for many projects is unclear, inaccurate, or misleading.” Further, the report found that “there is no systematic verification that projects are reporting valid outcomes.” A good metric is one that provides meaningful insight into the progress and success of the program; one that is easily understood, measured, and verifiable.

Defining clear, consistent, and effective metrics is critical to ESO engagement and ensuring funding vehicles are effective at meeting state economic development goals. Reporting outcomes based on complete and trusted data is an important first step toward future reforms to public investment strategies.

RECOMMENDATION: Convene a task group that includes representatives from ESOs, universities, and the Commonwealth to review current performance metrics and propose new metrics that can be used to evaluate and compare programs across the state (i.e., the Virginia Ecosystem Metrics Scorecard).



REAL-WORLD EXAMPLE

Examples of current **GO Virginia Core Performance Outcomes Metrics** in the categories of Talent Development, Existing Business Growth, Entrepreneurship, and Site Readiness:

- Number of jobs created/filled
- Number of students trained
- Number of upskilled employees
- Number of businesses served
- Revenues increased
- Total capital raised
- Number of patents awarded
- Number of acres advanced to higher tier per Virginia Business Ready Sites Program

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About the Summit

The Jefferson Innovation Summit format features three parts that include: a discussion in the round with delegates that is observed by interested local stakeholders; a facilitated ideation session to generate solutions to overcome the obstacles identified during the discussion in the round; and an interactive workshop to collectively develop ideas for constructive recommendations.

It's important to note that the recommendations provided in this playbook are guided by the shared interest of the Summit sponsors in accelerating scalable technologies and ventures. Although not the focus of this document, we recognize the importance of other small businesses and their important contributions to this growing ecosystem and hope that they too will benefit from the proposed actions.

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Batten Institute



The Batten Institute for Entrepreneurship, Innovation and Technology

is Darden's innovation engine. The Institute seeks to challenge every Darden student to fulfill their entrepreneurial potential through transformational learning experiences and groundbreaking research. <https://batten.institute>

UVA Innovates was established in September 2024 to help catalyze innovation and entrepreneurship at the University of Virginia. UVA Innovates sits within the Office of the Provost and helps coordinate, communicate, and amplify various entrepreneurial initiatives around Grounds and beyond.

<https://innovates.virginia.edu>

The Virginia Partnership Innovation Corporation was formed to support the Commonwealth's vision for the expansion of innovation, opportunity, and job creation in Virginia. VIPC creates technology-based economic development strategies to accelerate innovation, imagination, and the next generation of technology and technology companies. <https://vipc.org>

Tom Tom Foundation is a nonprofit organization in Charlottesville, Virginia, whose programs focus on bringing together diverse communities to build a brighter tomorrow. Tom Tom connects communities around big ideas, envision the future together, and catalyze solutions to make it happen.

<https://www.tomtomfoundation.org>

Endnotes

- i <https://www.prnewswire.com/news-releases/virginia-ranked-top-10-in-us-for-venture-capital-investment-by-national-venture-capital-association--virginias-highest-ranking-in-over-15-years-302262894.html>
- ii <https://www.cnn.com/2024/07/11/top-states-for-business-virginia.html>
- iii <https://academyofinventors.org/wp-content/uploads/2024/05/2023-Top-100-US-Universities.pdf>
- iv <https://home.treasury.gov/news/featured-stories/small-business-and-entrepreneurship-in-the-post-covid-expansion>
- v <https://educationdata.org/college-enrollment-statistics#virginia> and https://nces.ed.gov/ipeds/data/d23/tables/dt23_302.10.asp
- vi <https://www.guidantfinancial.com/small-business-trends/>
- vii <https://www.barrons.com/articles/college-grads-job-market-unemployment-hiring-6f4ba437>
- viii <https://www.coopercenter.org/research/why-southwest-virginias-population-trends-are-changing-2020s>
- ix Ibid.

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