

November 1, 2021

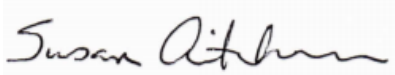
Mr. Daniel Timberlake
Director
Department of Planning and Budget
1111 East Broad Street, Room 5040
Richmond, Virginia 23219

Dear Mr. Timberlake:

Enclosed please find the FY2021 Annual Report for the Virginia Innovation Partnership Authority and Center for Innovative Technology. The report fulfills the Code of Virginia § 2.2-2355 (20) and the 2021 Appropriations Act Item 135 E requirements.

If any questions, please call me at 703-689-3021.

Sincerely,



Susan Aitcheson
CFO
Virginia Innovation Partnership Corporation

cc: The Honorable Governor Ralph Northam
The Honorable George Barker, Chair, Senate General Laws and Technology
The Honorable Cliff Hayes, Chair, House Communications, Technology and Innovation
The Honorable Brian Ball, Secretary of Commerce and Trade
Ms. Cassidy Rasnick, Deputy Secretary of Commerce and Trade
The Honorable Janet D Howell, Chair, Senate Finance & Appropriations Committee
The Honorable Luke E. Torian, Chair, House Appropriations Committee
Ms. Anne E Oman, Staff Director, House Appropriations Committee
Ms. April Kees, Staff Director, Senate Finance & Appropriations Committee
Ms. Toni Walker, Associate Director, Department of Planning and Budget
Ms. Samantha Martin, Budget and Policy Analyst, Department of Planning and Budget
Dr. Barbara Boyan, Chair, VIPA Board of Directors
Mr. Rob Quartel, Chair, VIPA Board of Directors Finance Committee

Center for Innovative Technology 2021 Report

Connecting Innovators with Opportunity

In accordance with 2020 Appropriation Act Item 135.E and Code of Virginia § 2.2-2355 (20), Virginia's Center for Innovative Technology is pleased to submit the following report describing key programs and economic performance for the Commonwealth of Virginia.



Connecting Innovators with Opportunity

The Center for Innovative Technology (CIT) is Virginia’s leading resource for innovation-based economic growth strategies and programs. CIT creates technology-based economic development strategies to accelerate innovation and stimulate the next generation of technology and technology companies at the earliest stages of the innovation continuum – commercialization and seed funding – as it helps entrepreneurs launch and grow high-growth technology companies that create high-paying jobs for the future.

To facilitate national innovation leadership and accelerate the rate of technology adoption, CIT creates partnerships between innovative technology start-up companies and advanced technology consumers. CIT builds public-private initiatives that bring government, industry and universities together to help entrepreneurs create new companies, government improve performance, and community leaders lay the foundations for their innovation economies. To build on that foundation, CIT has become an integral part of economic development policy formation and execution with public and private stakeholders across the Commonwealth that include the Commonwealth government, Virginia universities and community colleges, businesses, and investors. Working closely with the Virginia Economic Development Partnership (VEDP), GO Virginia, Department of Housing and Community Development (DHCD), State Council for Higher Education in Virginia (SCHEV), Virginia Biosciences Health Research Corporation/Virginia Catalyst (VBHRC), Commonwealth Cyber Initiative (CCI), the Tobacco Commission, the emerging Virginia Innovation Ecosystem and others, we share our expertise, craft strategies and design complementary programs to fulfill our mission of economic growth and diversity across Virginia and to make the best use of public and private funds entrusted to our organizations.

FY2021 represented a transformative period for innovation, entrepreneurship, and technology commercialization in the Commonwealth of Virginia. In 2020 the General Assembly and Administration created the new Virginia Innovation Partnership Authority, or VIPA, on July 1, 2020. Established by Code of Virginia § 2.2-2351, VIPA consolidated strategy, funding, and oversight for innovation commercialization and entrepreneur support under one entity. The scope of the programs the Authority may undertake is broad. It provides a wide range of powers and programmatic development. Critical needs and opportunities of the Authority establish the Authority as Virginia’s hub to grow and diversify the economy through innovation, entrepreneurship, and technology commercialization.

- Promote the technology-based economic development of the Commonwealth by building, attracting, and retaining innovation and high-technology jobs and businesses in Virginia.
- Increase industry competitiveness by supporting the application of innovative technologies that improve productivity and efficiency.
- Attract and provide additional private and public funding in the Commonwealth to enhance and expand the scientific and technological research and commercialization at the state and federal

research institutions and facilities, including by supporting and working with technology transfer offices to advance research from proof-of-concept to commercialization resulting in new business and job creation.

- Attract and provide additional private and public funding to support and enhance innovation-led entrepreneurship ecosystems and coordination of existing activities and programs throughout the Commonwealth to create new job opportunities and diversify the economy.
- Ensure promotion and marketing of Virginia's statewide innovation economy and support and coordinate regional marketing efforts to align local and statewide objectives.
- Close the Commonwealth's support gap through pre-seed and seed stage investments, coordination of private investor networks, and shared due diligence research.

In FY2021, CIT organized in alignment with the VIPA in four divisions: Commercialization; Entrepreneurial Ecosystems; Investment; and Strategic Initiatives. Through these activities, CIT leverages public and private sector investment to drive innovation and entrepreneurship in the Commonwealth, creating new, high-growth companies, sustainable job growth, investment in applied research projects, and capital investment in entrepreneurial ecosystems and Virginia companies.

Program Changes Anticipated in FY2022

Transformation will continue in FY2022 to achieve the expanded mission of the authority. Priorities include:

- Establish the ONE Virginia Plan as the organization's compass for Diversity, Equity, and Inclusion.
- Expand support and services for regional ecosystems and initiatives in every region of Virginia.
- Support the recruitment and retention of eminent researchers at Virginia's research universities.
- Increase commercialization in Virginia's private sector and at higher ed institutions.
- Support the development of technology commercialization programs at HBCUs and underrepresented populations.
- Launch the Virginia Founders Fund II and Virginia Partners Fund to increase pipeline form and investments in founders arising from the Commonwealth's traditionally underserved communities.
- Develop 3-stage pipeline investment program to foster additional private investment in Virginia's high growth companies and enhance returns for sustainable investment in Virginia's technology ecosystems.
- Develop indirect investment programs such as co-investment, sidecars, and intermediate strategies to provide a competitive advantage to the Commonwealth in start-up investing.
- Expand market development activities through additional pilot projects in strategic industry areas.
- Execute a marketing and branding campaign designed to showcase innovation in the Commonwealth

FY2021 Programs

Commercialization Division: Strategic Investments in Research Commercialization

The Commercialization Division facilitates the commercialization of research through public and private sector teams across the state that develop and deploy innovative, marketable solutions. The Commercialization team manages the Commonwealth Commercialization Fund (CCF), which invests in research and commercialization at Virginia colleges and universities, companies, federal labs and other research institutions in their efforts to advance technology and drive economic growth in the Commonwealth.

Entrepreneurial Ecosystems Division: Strengthening Communities

Five years ago, CIT set a strategic initiative to dramatically increase its engagement with communities all across Virginia. Engagement in this context means CIT staff meeting with citizens and elected officials in communities across Virginia to communicate our programs, support for innovation and entrepreneurship and solicit participation in our programs. Since then, staff outreach in all regions led to more applications for program services, a record number of clients trained on SBIR/STTR proposal preparation, more investment opportunities for our Virginia Founders Fund, and feedback from communities that CIT is notably more seen and engaged across the Commonwealth.

As an outcome, Entrepreneurial Ecosystems was established in July 2020 to support and promote technology-focused entrepreneurial ecosystems throughout the Commonwealth. Regional entrepreneurial ecosystems in Virginia have grown significantly over the last several years as communities recognize the significance of this important sector of the economy. Regionally based initiatives and entrepreneurial support organizations (ESOs) have been established to meet the needs of Virginia's diverse regional economies. Funding for these programs includes federal and state grants, and support from localities and the private sector. The Division supports, connects, and convenes entrepreneurial ecosystems and stakeholder throughout Virginia. Stakeholders include start-up incubators and accelerators, training providers, technology councils, chambers of commerce, investor groups, and other Virginia-based organizations that assist entrepreneurs through the early stages of business formation and growth.

Investment Division: Access to Capital

To bridge the gap of critical early-stage capital for many emerging technology companies, CIT operates the GAP Funds and the Virginia Founders Fund (VFF). The GAP Funds make seed-stage equity investments in Virginia-based technology, green technology and life science companies with high growth potential. The GAP Funds are overseen by CIT with the advice of private sector experts – the Investment Advisory Board – who conduct thorough due diligence on the companies before making investments. Funded by proceeds of the GAP Funds portfolio, the Virginia Founders Fund is designed to support regionally based innovation initiatives and provide investment opportunities for entrepreneurs underrepresented in venture capital. The Fund is dedicated to investments in minorities, women, veterans, and founders in

regions outside of Northern Virginia. CIT promotes the VFF and other innovation opportunities, through partnership with regional innovation initiatives to showcase regional entrepreneurs and attract investors and entrepreneurs, and to support existing regional programs to stimulate economic growth in these communities.

Strategic Initiatives: Positioning the Commonwealth for Future Economic Growth

CIT Strategic Initiatives focuses on identifying and advancing solutions and providing initial leadership for the Commonwealth around important emerging areas that impact future economic development. Key initiatives for FY2021 included Smart Communities and Autonomous Systems, with additional activities in conjunction with the Chief Data Officer (CDO), Chief Broadband Advisor (CBA), Department of Homeland Security and Public Safety (in conjunction with the Federal Department of Homeland Security), Virginia Department of Transportation (VDOT) and other Agencies.

In partnership with the US Department of Homeland Security Science and Technology Directorate, the Smart City IoT Innovation (SCITI Labs) program pioneered a new approach to R&D, Commercial First Innovation™ designed to speed delivery of innovative technologies to first responders. Commercial First encourages entrepreneurs already succeeding in related markets to innovate ideas that address the unique needs of the Homeland Security and Public Safety communities. SCITI Labs is working in technology areas including: smart buildings, indoor UAVs for search and rescue, detection of wildfire ignition using ground-based IoT sensors, vehicle inspection at speed, infrastructure protection against a range of threats, including cybersecurity and chemical release threats, and integrated information sharing (smart hub) technologies. SCITI Labs has strategically positioned the Commonwealth of Virginia to assume a national leadership role in the public safety domain as it evolves to face the new opportunities and challenges associated with Smart Communities.

Under the Smart Communities Initiative, smart communities are anticipated to drive approximately \$1.5 trillion of economic activity globally in the next 15 years. The Smart Communities initiative has evolved from several related, synergistic activities including the DHS SCITI Labs program, the Smart City Works Actuator, and the Virginia Smart Community Working Group. The initiative moved from studies to implementation, leading the effort to have Virginia named as the first “Smart State” by the Smart Cities Council, and having Virginia selected by the National Governors Association for a Living Lab leading to the Virginia State Action Plan for Smart Communities. Smart Communities activities focus on “Community-Driven Innovation” pilot projects across the Commonwealth supporting early stages of initiatives that develop capabilities identified and desired by the communities involved. Project selection seeks to achieve geographic diversity across the Commonwealth, in addition to technology and vendor diversity, with preference for smaller, innovative Virginia companies. Implementation projects are under way throughout the Commonwealth including an IoT security and privacy testbed in Stafford County which offers a model from which other communities can follow. For example, through a cooperative research and development agreement (CRADA) with the Department of Homeland Security, the program is piloting an integrated flood sensor network with several localities in the Commonwealth to improve data analysis, visualization, and predictive analytics.

By integrating these efforts in a single conceptual framework CIT has the capability to address the needs of widely varying communities throughout the Commonwealth and provide a focal point for maturing both commercial and university-developed technologies that are relevant to these communities. A major key to success in this area is the continued evolution of partnerships at the state and national level, and with communities and local governments, universities and private entities throughout the Commonwealth.

In FY2022, in addition to these primary activities, Strategic Initiatives will explore three potential new areas including a Public Safety Innovation Center, a Maritime Innovation Center, Augmented Reality/Virtual Reality (AR/VR), and quantum computing. It will also continue its focus on integration with the Commonwealth Data Trust led by Chief Data Officer Carlos Rivera.

Virginia's Unmanned Systems Center (VUS@CIT)

The Unmanned Systems Center at CIT serves as Virginia's primary information resource, a proponent and point-of-contact on global UMS technology, policy, and trends. The Center is a catalyst for growth of unmanned and autonomous systems, vehicles, and technologies in Virginia. The Center has established itself as the nexus for collaboration between businesses, investors, universities, entrepreneurs and government organizations, which led to Virginia's recognition for the third year as the top state in the country for UAS by Business Facilities Magazine.

CIT and the Virginia Tech-led MAAP (Mid-Atlantic Aviation Partnership) FAA Unmanned Aviation Systems Integration Pilot Program (UAS IPP) is helping push the envelope for BVLOS (Beyond Visual Line of Sight) UAS operations, with valued industry partners like State Farm, Dominion Energy, Google's "Wing" and others.

The Center works with several Virginia state agencies to develop pilot projects that enable use of unmanned systems to accomplish agency missions faster, cheaper and safer. The Center promotes the use of UMS-based solutions to the COVID-19 emergency response. In partnership with Virginia's Department of Aviation and Department of Transportation, the Center is supporting the launch of VA FIX (Flight Information Exchange). The Center developed and maintains the Commonwealth's UMS website and Virginia's Unmanned Systems Directory to serve as the central source of information and assistance related to the unmanned systems landscape in Virginia. The Center's Director is assisted by a 24-member advisory board that brings together expertise and leadership from across the Commonwealth to guide strategies and priorities.

Regional and Policy Initiatives

Regional and Policy Initiatives support regionally based priorities and initiatives designed to expand opportunities and build on the strengths and resources that uniquely shape each region. Staff from all of CIT's services lines engage directly in organizations and initiatives as Board members, mentors, investors,

trainers, advocates, and as partners in programs and proposals that seek additional funding sources. CIT supports the creation of a network of regional accelerators and funds – among the focus areas, best practices, resource sharing, and showcasing regional investment opportunities. To aid in achieving this goal, CIT created programs like the Virginia Founders Fund dedicated to providing investment opportunities for underrepresented entrepreneurs in Virginia. In addition, CIT serves on the innovation and proposal review committees for all GO Virginia Regional Councils and on the evaluation committee for the State Council where it advocates funding for innovation programs. CIT also collaborates directly with regions on grants developed to grow innovation and entrepreneurship. And, in partnership with regional stakeholders, CIT develops and advocates for legislative and budget proposals that advance innovation and entrepreneurship in Virginia. CIT works to establish policies and specific programs that maximize intellectual property commercialization, entrepreneurship, and new company formation.

Primary regional partners include:

- All regional technology councils
- All Go Virginia Councils
- Lighthouse Labs, Startup Virginia, Activation Capital – Richmond
- 757 Angels/Accelerate, ODU Entrepreneur Center – Hampton Roads
- Launch Place and Launch Place Seed Fund – Danville
- RAMP Accelerator – Roanoke
- Valley Innovation Council (VIC)
- iLab – Charlottesville
- Virginia is for Entrepreneurs (VA4E)
- MACH37/UVA-Wise Cyber Partnership
- Virginia Chamber – Blueprint Virginia

CIT's Federal Funding Assistance Program identifies and accelerates opportunities for Virginia's small technology businesses to obtain SBIR, STTR, and other government contracts. As the leader of SBIR initiatives in Virginia, CIT provides guidance, direction, training, and valuable resources to enhance the competitiveness of SBIR/STTR proposal strategies.

CIT Supports Virginia's Phase I and Phase II SBIR/STTR Applicants:

- SBIR strategy consultation and mentoring
- Low cost Phase I and Phase II proposal training and review courses
- Discounts with proposal consultants (proposal prep & proposal review)
- Discounts on proposal preparation software
- Referral to law firm for free IP and patent consultation
- Discounts on federal cost accounting solutions and CPA services
- Commercialization plan assistance
- Intro to 3rd party capital
- VC/Angel Capital "Readiness" review
- Funding assistance to qualified first time Phase I and/or Phase II applicants to help pay for proposal development resources

Economic Performance of Key Areas

Commonwealth Commercialization Fund (CCF)

The Commonwealth Commercialization Fund (CCF), including its predecessor programs the Commonwealth Research Commercialization Fund (CRCF) and the Virginia Research Investment Fund (VRIF), drives economic growth in the Commonwealth by investing in high-potential technologies that can position Virginia as a national leader in science- and technology-based research, development, and commercialization. In total, more than \$39 million has been awarded to 417 projects¹ across the lifespan of the three programs:

- **CRCF (FY2012-20):** 378 projects, \$30,323,489
- **VRIF (FY2016-20):** 5 projects, \$5,548,634
- **CCF (FY2021 - current):** 34 projects, \$3,336,481

FY2021 Program Impact (CRCF and VRIF)

The aggregate figures that follow are composed of outcomes reported to CIT by CRCF and VRIF award recipients between September 2020 and September 2021; CCF projects are not yet to the reporting stage. Comprehensive figures, based on outcomes reported through September 2021, are also shared below for follow-on funding, revenue, and patents.

Investments	
Follow-on Funding	In-kind Contributions
\$144,556,404	\$309,000

In FY2021, awardees reported more than \$140 million investment in CRCF- and/or VRIF-funded technologies, including follow-on funding and in-kind contributions. Follow-on funding is composed of \$71 million in federal grants, \$66 million in capital raises, \$375,000 from friends and family, \$4.7 million other private investment, and \$2 million capital invested. For awardees, in-kind support typically consists of waived salaries or equipment donations. Since the program's inception, awardees have reported more than \$775 million in follow-on funding and more than \$20 million in in-kind contributions.

¹ 22 CRCF award recipients declined funding, totaling \$1,882,812

Growth and Expansion			
Revenue	Headcount	New Companies Formed	Enhancements and/or Expansions
\$22,786,857	876	6	33

Six awardees reported revenue figures of more than \$1 million each, with two awardees reporting more than \$4 million over the past year. Since the program’s inception, awardees have reported revenue totaling nearly \$128 million. In FY2021, one award recipient was acquired by a large organization and, along with increasing a physical footprint, a number of award recipients reported enhancements to their facility and/or equipment.

Products or Services	
Newly Commercialized	Products or Services Under Development
95	142

In total, more than 230 products or services were reported as introduced to the market in FY2021 or planned for release over the next year. In addition, seven technologies received some type of medical approval and two technologies are part of on-going clinical trials.

Intellectual Property	
Patents Granted	Patents Pending
39	222

Award recipients reported intellectual property creation, including U.S., international, PCT, and provisional patents. Their reports also cited several patents under development, invention disclosures, trade secrets, and copyrights. Additionally, 13 technologies were reported as licensed in FY2021 and several organizations are actively pursuing licensing agreements for their technology. Since the program’s inception, awardees have reported 190 patents granted.

FY2021 Solicitation

In FY2021, CIT conducted a competitive CCF solicitation for young, Virginia companies whose highly promising technologies had seen traction, for instance through revenue generation and/or investment, and who had demonstrated strong potential for economic growth in Virginia. This included companies whose activity and/or growth may have been temporarily halted or slowed by the pandemic and those

who developed and had validated a new opportunity resulting from the pandemic. The CCF provided grants up to \$100,000 to catalyze commercialization of companies' technologies or access to the market in seven eligible industry sectors: agricultural and environmental technologies, autonomous systems, clean energy, cybersecurity, data science and analytics, life and health sciences, and space and satellites.

CIT led a multi-stage application and review process. Initially, interested applicants submitted an executive summary that introduced their business opportunity, technology, and company. CIT received 62 executive summaries that were reviewed first for general compliance by CIT staff and subsequently for business and technology orientation by a committee comprised of angel investors and others with investment experience. At the recommendation of the review committee, 38 applications were invited; ultimately, 37 applications were received, totaling approximately \$3.7 million and representing all eligible industry sectors and seven of the nine GO Virginia regions. CIT performed an internal compliance review to determine those applications that would advance to examination by subject matter experts; all submissions advanced. Projects for which the investor reviewers and subject matter experts agreed funding was merited advanced to review and final approval by the President of the VIPA, on behalf of its Board. If agreement between the reviewers was not reached, applications were to go through an additional external assessment; however, this step was not required in FY2021, as agreement was reached in each case. Applicants whose projects were recommended for funding were notified in late June 2021, while applicants not receiving an award were notified in early July 2021. Thirty-four awards totaling nearly \$3.4 million were publicly announced in July, leveraging more than \$11 million in matching funds and continuing to represent all industry sectors and six of the nine GO Virginia regions.

Program Changes Anticipated in FY2022

The CCF program will continue to reflect the importance of and value the Commonwealth has placed on supporting early-stage innovations to catalyze economic outcomes in FY2022 and beyond. Planning is underway for the next phase of the program, which is expected to go live in early CY2022, and support work at the proof-of-concept, minimum viable product, and revenue development stages. Funding opportunities for the private sector will continue, and, similar to offerings under the CRCF and VRIF programs, support for Virginia public and private colleges and universities will be re-introduced; this includes funding for the recruitment and retention of eminent researchers to and at public universities.

Growth Acceleration Program (GAP)

The GAP Fund was established to meet the early stage capital demands challenging the Commonwealth's most promising science and technology-based start-ups whose funding requirements could not be met by traditional financing means. GAP Fund investments are governed by the goal of developing the next generation of Virginia's science and technology economy and the entrepreneurial ecosystem required to support that economy. To this end, the GAP Fund places equity and convertible debt investments in tech, clean-tech and life science companies at the earliest stages of company formation, in a manner conducive to stimulating significant private investment or "leverage cash" as a result of CIT's deployment of public dollars.

Fundamental to CIT's ability to successfully deliver private capital is that, unlike grant programs, CIT holds an ownership position in the investee company and maintains that ownership for a multi-year holding period of indeterminate length while the company grows in scope of operations and value. CIT recovers GAP Program investments only upon a liquidity event such as a public offering or change of control for the company.

Underwritten by an annual appropriation from the Virginia General Assembly, the GAP Fund Program functions as a double-bottom-line investment fund focused on creating significant economic outcomes for the Commonwealth, entrepreneurs and co-investors, with the goal of recovering investment capital for redeployment. Since inception, the GAP Fund Program has considered investing in over 6,500 companies and has invested \$34.7M in 257² seed and early stage technology, life science, and energy companies across the Commonwealth of Virginia.

Over the 17-year life of the program, CIT has found that the following metrics most closely align with program objectives:

- **Venture and Angel Capital Attracted** – Venture and angel capital dollars invested in the GAP Fund Program's portfolio companies as a result of CIT investing dollars appropriated to the Innovation and Entrepreneurship Investment Authority (IEIA) – prior to FY2021)/Virginia Innovation Partnership Authority (VIPA) – starting in FY2021) and obtained from federal and private sources. CIT calculates its annual leverage factor by dividing the total of venture and angel capital by all GAP Fund Program portfolio companies in a given year by the dollars deployed in new investments in that year.
- **GAP Fund Program Return** – The ratio of capital returned and anticipated to return to CIT, as a result of portfolio companies being acquired, divided by total GAP Fund Program dollars deployed.

Venture and Angel Capital Attracted

For the period FY2021 and inception-to-date, the GAP Fund Program achieved the following leverage cash totals:

- FY2021 – During FY2021, CIT GAP Funds invested \$3.3M. In FY2021, CIT attracted \$243.6M in angel and venture dollars – inclusive of FY2021 new investments, FY2021 follow-on investments and pre-existing investments in which CIT did not invest in FY2021, for an annual leverage factor of 74.
- Inception-to-Date – Since inception, CIT GAP Funds has invested \$34.7M. CIT has attracted \$1.3B in angel and venture dollars, for an inception-to-date leverage factor of 38.8.

Important to note in these ratios is the impact of economic conditions with respect to the ability of GAP portfolio companies to attract leverage capital. Poor economic conditions may result in a lower capital attraction ratio due to investor withdraw from the early stage asset class which is not a direct reflection of changes or performance in the GAP program structure and operations.

GAP Fund Program Return

By the end of FY2021, CIT had secured and invested a total of \$34,664,451 program inception-to-date and had a projected capital return of \$67,513,672 on invested funds, resulting in a capital return factor of 1.95. This number indicates that CIT is managing Virginia's GAP Funds Program appropriation consistent with its goal to return funds to preserve the base of funds for future investment in Virginia's early stage companies.

Company Residency Requirements – CIT GAP Funds requires that all companies be headquartered and have substantial business operations in Virginia at the time of investment and for a minimum three-year period thereafter. MACH37, a component seed fund of CIT GAP Funds, required that all companies establish a significant presence in the Commonwealth within a 24-month period of graduation from the MACH37 Accelerator. CIT no longer operates or has interest in the MACH37 Accelerator. Nevertheless, significant economic penalties – discussed below - applied to companies in breach of these requirements.

CIT Enforcement of GAP Portfolio Company Residency – Over the life of the GAP Program, CIT's policy and practice regarding remedies that invoked as a result of an investee company's departure from the state has evolved, matured and become more specific:

In FY2005, with the start of the GAP Fund program, CIT established its initial policy regarding company residency requirements. As at that time all CIT's investments were in the form of a convertible debenture, our loan covenants explicitly addressed this issue. Under that policy, if a portfolio company were to relocate to another state, CIT -- at its option – could invoke one of two remedies: (1) CIT could demand the immediate payback of all principal and interest; or, (2) upon note conversion to equity, CIT could invoke a deeper discount percentage (50% v the 20% of the initial note).

In FY2013, CIT revisited this policy and added redemption language to address all equity agreements. In FY2014, CIT further refined this language. The current policy and practice, memorialized in CIT GAP Funds transaction covenants, is as follows:

- Equity Investments: If a company relocates its primary business from the Commonwealth within 36-months of CIT investment, CIT retains its equity position in the company and is repaid a penalty fee equal to two times CIT's investment. Also within 36-months of CIT's investment, if the Company accepts any direct or indirect funding from a publicly funded economic development or company attraction entity requiring temporary or permanent relocation of the Company's headquarters or any member of the Company's senior management outside of the Commonwealth of Virginia, Company shall be required to pay CIT a penalty equal to two times (2x) CIT's principal investment.

- Convertible Debt Investments: If a company relocates its primary business from the Commonwealth within 36-months of CIT investment, CIT can convert into common shares at a 50% discount or elect to be paid back principle plus interest. If the note has previously been converted, then CIT will be paid a penalty fee equal to CIT's principal investment. Also within 36-months of CIT's investment, if the Company accepts any direct or indirect funding from a publicly funded economic development or company attraction entity requiring temporary or permanent relocation of the Company's headquarters or any member of the Company's senior management outside of the Commonwealth of Virginia, Company shall be required to pay CIT a penalty equal to two times (2x) CIT's principal investment, regardless of whether CIT holds debt or equity in the Company.

All MACH37 Accelerator investments were transacted as \$50K common stock equity investments designed to attract or retain cyber startups in Virginia. Prior to FY2020, companies receiving investments from MACH37 were located at CIT's offices in Herndon, VA for the three-month duration of their acceleration period and then had 24 months to establish a significant presence in Virginia. The accelerator is no longer located at CIT and as of July, 2020, CIT has no ownership in or management of the accelerator; however, CIT continues to make selective investments at its discretion. In FY2020, CIT sold off 11 MACH37 companies to secondary investors; 10 of these companies were in the M37 Carried Interest portfolio.

For all MACH37 companies, covenants called for a full redemption of CIT's investment in the event that companies fail to establish a significant presence in Virginia. Also within 36-months of CIT's investment, if the company accepts any direct or indirect funding from a publicly funded economic development or company attraction entity requiring temporary or permanent relocation of the company's headquarters or any member of the company's senior management outside of the Commonwealth of Virginia, the company shall be required to pay CIT a penalty equal to two times (2x) CIT's principal investment.

The FY2021 activity below is provided in response to Section 135.E.2A of the Appropriations Act. Since GAP investments are, by design, seed stage and intended to leverage private investment and stimulate the next generation of new technology companies, job creation and tax revenue impact are longer term objectives.

- I. The number of companies receiving investment from the fund:
 - a. FY2021: 33 companies
 - b. Inception-to-date: 257² companies

² CIT has invested in 257 companies from inception through FY2021. This is a downward adjustment from the 259 total companies in the portfolio due to the following reasons (259 + 1 (item #1 below) – 3 (item #2 below) = 257):

- 1. Two of the invested companies merged into one company.
- 2. Three of the invested companies were acquired as part of acquisitions. CIT was granted ownership in the three new entities without additional cash investment.

- II. The state investment and amount of privately leveraged investments per company:
 - a. FY2021: CIT invested \$3.3M and leveraged \$39.1M in angel and venture dollars on FY2021 investments. During FY2021, CIT's inception-to-date investments leveraged \$243.6M.
 - b. Inception-to-date: CIT has invested \$34.7M and has leveraged \$1.3B in angel and venture dollars, \$243.6M of which was leveraged during FY2021.

- III. The estimated number of jobs created or preserved during FY2021:
 - a. FY2021: 261 jobs in companies invested in by CIT in FY2021
 - b. Inception-to-date: In FY2021, companies reported that 4,212 jobs were created or preserved by companies invested in by CIT in FY2021 or before.

- IV. The estimated tax revenue generated during FY2021³:
 - a. FY2021 investments: \$1,468,170
 - b. Inception-to-date: \$23,819,366

- V. The number of companies who have received investments from the GAP fund still operating in Virginia*
 - a. FY2021 investments: 33 out of 33
 - b. Inception-to-date: 121 out of 257²

Of the 136 companies no longer operating in Virginia:

- i. Eight (8) are active CIT GAP Funds portfolio companies that have moved from the Commonwealth:
 - 1. Four (4) moved from Virginia to other states after the 3 year requirement to be headquartered in Virginia timed out.
 - 2. One (1) moved from Virginia to Connecticut. This company had received a \$100K convertible note from CIT - \$50K from Commonwealth-appropriated funds and \$50K resulting from a grant to CIT by Johnson & Johnson. In June of 2009, CIT elected to be paid back the \$50,000 Commonwealth-appropriated funds plus interest and to convert Johnson & Johnson grant-sourced \$50,000 principal and interest at a 50% discount
 - 3. Three (3) were part of MACH37
 - a. Two (2) have returned to their place of origin and are working to establish a Virginia presence. CIT maintains a high level of visibility into those companies, including frequent interaction with the CEO and team, Board of Director observation rights and receipt of a required quarterly statute report.

³ Corporate and personal income tax revenue estimated. Corporate tax revenue based on company's actual revenue in CY2020 Q3 and Q4 (assumes 50% of total reported CY2020 revenues) and CY2021 Q1 and Q2. Personal tax revenue assumes an average salary of \$125k per Virginia employee.

- b. One (1) was acquired by a company not headquartered in the Commonwealth of Virginia and CIT's stock certificate has not yet been cancelled. We do not anticipate future distributions and planning to write off in the upcoming quarter.
- ii. 128 are Inactive companies
 - 1. 56 have failed
 - 2. 72 have been acquired or paid back CIT
 - a. The above total of 72 includes one company for which CIT received shares of an acquiring company in lieu of a cash payout. While this acquiring company was itself acquired prior to the 6/30/21 date of this report, CIT did not have the opportunity to redeem its shares prior to that date. For this reason, the acquiring company in which CIT holds shares is not included in the total of 72, above, or elsewhere as an independent investment.

* Data only includes companies in which CIT has placed a direct investment. Therefore, it excludes three companies, for which CIT was granted ownership in a newly formed entity as a result of a merger or acquisition without making any additional investments.

VI. Return on investment

- a. FY2021 investments: \$0
- b. Inception-to-date: \$25,130,887

VII. The number of investments that failed:

- a. FY2021 investments: 0
- b. Inception-to-date: 56 failures, \$5,908,600 invested

VIII. Number of companies created or expanded and the number of patents filed during FY2021:

- a. FY2021:
 - i. Companies created or expanded: 33 companies
 - ii. Number of Patents filed: 29
- b. Inception-to-date:
 - i. Companies created or expanded: 257²
 - ii. Number of Patents filed during FY2020: 97

IX. Geographic distribution of investments (based on GO Virginia regions)

- a. FY2021 investments: 33 of 33 in Virginia
 - i. Region 1: 1
 - ii. Region 2: 2
 - iii. Region 3: 1

- iv. Region 4: 9
- v. Region 5: 5
- vi. Region 6: 0
- vii. Region 7: 14
- viii. Region 8: 0
- ix. Region 9: 1

b. Inception to Date: 123 out of 131 active companies are based in Virginia

- i. Region 1: 2
- ii. Region 2: 8
- iii. Region 3: 2
- iv. Region 4: 16
- v. Region 5: 8
- vi. Region 6: 0
- vii. Region 7: 75
- viii. Region 8: 1
- ix. Region 9: 11

Program Changes Anticipated in FY2022

CIT is effectively Virginia Innovation Partnership Corporation and GAP Funds is part of the Investment Division. The combination of the GAP Funds, Virginia Founders' Fund II, and Virginia Partners Fund will produce a projected 20 to 30 new investment transactions for Fiscal Year 2022. VIPC Investment Division will continue its work in examining how best to establish one or more private funds to augment financing obtained from the Commonwealth of Virginia for the purpose of investing in early stage companies. CIT will also examine new funding structures to increase private capital into Virginia companies.

Portfolio Companies

CIT's loan and equity covenants contain confidentiality provisions that strictly govern the disposition of company-sensitive information obtained thereunder. CIT obtains information on third-party, private investment from its portfolio companies under the constraints of this confidentiality language. Release of that private information by CIT, and subsequent availability to a third party under the Freedom of Information Act, could be construed as a breach of the confidentiality provisions, exposing CIT and the Commonwealth of Virginia to legal action by an investee company, its shareholders or other investors. This exclusion is also discussed in § 2.2-3705.6 (3) of Virginia's Freedom of Information Act. Similar confidentiality provisions generally govern stock and asset purchase agreements through which CIT gains liquidity from the sale of portfolio companies to acquiring entities. CIT disclosure of company-specific investment returns, could result in legal action taken by an investee company, other investee company shareholders or the acquiring entity.

Regional Innovation Fund (RIF)

The Regional Innovation Fund provides competitive grants to leading Virginia-based entrepreneurial support organizations (ESOs). In FY2021, RIF grants provided co-funding to eligible GO Virginia identified projects. In the RIF's inaugural year, the program established its advisory committee, and worked with state and regional stakeholders to establish program guidelines, procedures, and criteria. Upon board approval, the Fund launched in March 2021. This resulted in two \$200,000 RIF awards to ESOs in GO Virginia Regions 2 and 3. Representing Region 3, the Virginia Biotechnology Park Research Corporation dba Activation Capital; representing Region 2, the Blacksburg-Roanoke Innovation Network dpa Valleys Innovation Council. In addition, the program funded statewide expansion of regional mentoring support through the Innovation Commercialization Assistance Program (ICAP) in the amount of \$200,000. Further, the program sponsored activities with Regions 5 (Hampton Roads and the Shenandoah Valley) and 3 (Richmond) and piloted an analytical tool to support regional ecosystems by subsidizing the cost. Similar to a FICO score for startups, fluency reports provide actionable analysis and measure growth through resident programs and services.

To maximize deployment of federal funds under the American Rescue Plan Act (ARPA) during the year, the program led one statewide community navigator proposal in a hub and spoke model with the regions, and supported and matched several regional federal and state proposal efforts.

Program Impact

As the program matures, outcomes will be reported – including but not limited to: number of jobs created, number of businesses founded, and additional sources of investment in the projects receiving support from the fund.

Program Changes Anticipated in FY2022

The program shall continue to expand to support state and regional ESOs in all regions of the Commonwealth, including organizing and hosting investor demo days and an entrepreneurial ecosystem stakeholder conference, in addition to launching an enhanced statewide entrepreneurship information portal.

Opportunity for All Virginians

CIT programs stimulate economic growth for all Virginians by attracting private sector investment in Virginia companies and regions, commercializing early stage university and private sector research, working with regionally based initiatives to grow ecosystems that support innovation and new company growth, establishing footholds for new industry verticals such as Smart Communities, Unmanned Systems, and working with regional stakeholders to support, promote, and expand technology-based entrepreneurial ecosystems throughout the Commonwealth.

Organizational and mission related transformation will continue in FY2022 for CIT and the Authority it serves. FY2022 priorities include delivering vital services in strategic domain areas that existing Commonwealth organizations are not currently serving through of a continuum of services and investments for innovation-

led development that will collectively scale to drive economic diversification, economic growth, and generate measurable benefits in the Commonwealth.

CIT will continue to apply four governing principals to guide the company.

- Inclusion – prioritize outreach to groups in the Commonwealth traditionally underrepresented such as people of color, women, rural communities, students and youth while ensuring that all parts of the Commonwealth are touched by CIT.
- Transparency – openness on all issues among the Board, the Administration, and the General Assembly.
- Accountability – board approved operating plans and balanced scorecards; management accountability; rigorous reporting.
- Leadership – board and management policy engagement with the Commonwealth government, operational execution and measurable results.

We look forward to you joining us. Please visit us at www.cit.org to learn more.