VIPC
VIRGINIA INNOVATION PARTNERSHIP CORPORATION

November 3, 2023

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

Dear Director Maul:

Enclosed please find the FY2023 Annual Report for the Virginia Innovation Partnership Authority (VIPA) and the Virginia Innovation Partnership Corporation (VIPC). The report fulfills the Code of Virginia § 2.2-2355 (20) and (17) and the 2023 Appropriations Act Item 127 D requirements.

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

Sincerely,

Susan Aitcheson
CFO
Virginia Innovation Partnership Corporation

cc: The Honorable Governor Glenn Youngkin
The Honorable Adam Ebbin, Chair, Senate General Laws and Technology
The Honorable Emily Brewer, Chair, House Communications, Technology and Innovation
The Honorable Caren Merrick, Secretary of Commerce and Trade
The Honorable Janet D Howell, Co-Chair, Senate Finance & Appropriations Committee
The Honorable George Barker, Co-Chair, Senate Finance & Appropriations Committee
The Honorable Barry Knight, Chair, House Appropriations Committee
Ms. Anne 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, VIPC Board of Directors Chair
Mr. Rob Quartel, VIPC Board of Directors Finance Committee Chair

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VIPA | VIRGINIA INNOVATION PARTNERSHIP AUTHORITY

VIPC | VIRGINIA INNOVATION PARTNERSHIP CORPORATION

Connecting Innovators with Opportunity

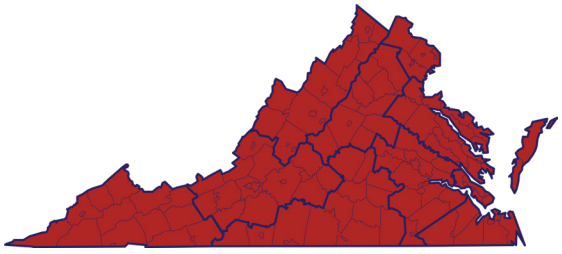
Annual Report 2023

In accordance with 2023 Appropriation Act Item 127.D and Code of Virginia § 2.2-2355 (17) and (20), The Virginia Innovation Partnership Corporation is pleased to submit the following report describing key programs and economic performance for the Commonwealth of Virginia.

Presenting VIPA and VIPC to the Virginia Bankers Association

VIPA | VIRGINIA INNOVATION PARTNERSHIP AUTHORITY

The Virginia Innovation Partnership Authority (VIPA), through its governance and with VIPC as its operating arm and managing nonprofit, brings together components of existing and new program activities in an approach through which the whole is greater than the sum of the individual programs. VIPA's design includes governance and management capabilities to ensure that programs generate transformative and measurable results. *Click Here to Learn More*



VIPC | VIRGINIA INNOVATION PARTNERSHIP CORPORATION

Connecting Innovators with Opportunity

The Virginia Innovation Partnership Corporation (VIPC), Connecting Innovators with opportunities. The nonprofit operations arm of the Virginia Innovation Partnership Authority (VIPA), VIPC is the commercialization and seed stage economic development driver in the Commonwealth that leads funding, infrastructure and policy initiatives to support Virginia's innovators, entrepreneurs, startups, market development strategies, and ecosystems. VIPC collaborates with local, regional, state, and federal partners to support the expansion and diversification of Virginia's economy. *Click Here to Learn More*

VIPA | VIRGINIA INNOVATION PARTNERSHIP AUTHORITY

INDEPENDENT NONPROFIT CENTERS OF EXCELLENCE UNDER A SINGLE STATE AUTHORITY

This new structure allows for greater coordination across these organizations, as well as unified periodic reporting through VIPC to the Secretary of Commerce and Trade and other Commonwealth of Virginia stakeholders.

Below is an overview and direct link to each of the Centers of Excellence (COE) annual reports. VIPC does not approve or include their outcomes in our report metrics. *Click logos for annual reports.*

CCALS

Commonwealth Center for Advanced Logistics Systems
501(c)(3)

Board of Directors
(10 Members)

Chair: *Dawit Haile*
Vice Chair: *Vince Barnett*

Commonwealth Center for Advanced Logistics Systems administers and deploys seed money for collaborative public sector projects with Commonwealth partners.

VBHRC CATALYST

Virginia Catalyst
501(c)(3)

Board of Directors
(16 Members)

Chair: *David X. Cifu*
CEO: *Michael Grisham*

Non-stock corporation research consortium comprised of the University of Virginia, Virginia Commonwealth University, Virginia Tech, George Mason University and the Eastern Virginia Medical School that contracts to perform research and develop infrastructure tools in biosciences to facilitate research activities.

CCAM

SOLVING ADVANCED MANUFACTURING CHALLENGES

Commonwealth Center for Advanced Manufacturing
501(c)(3)

Board of Directors
(12 Members)

Chair: *Nezih Yaramanoglu*
CEO: *John Milton-Benoit*

Commonwealth Center for Advanced Manufacturing administers private sector incentive and university research grants.

CCI

Commonwealth Cyber Initiative
Multi-University Program

•Advisory Board
•Leadership Council

Exec. Dir.: *Luiz DaSilva*

Commonwealth Cyber Initiative funds Hub and Node sites to provide resources for the establishment of research faculty/ recruiting, entrepreneurship programs, student internships and educational programming, and operations.

VASEM

Virginia Academy of Science, Engineering and Medicine
501(c)(3)

Board of Directors
(12 Members

President: *James Aylor*

VASEM is a Virginia nonprofit corporation established to: Inform, Advocate, and Serve.

Lighthouse Labs Partner Parade

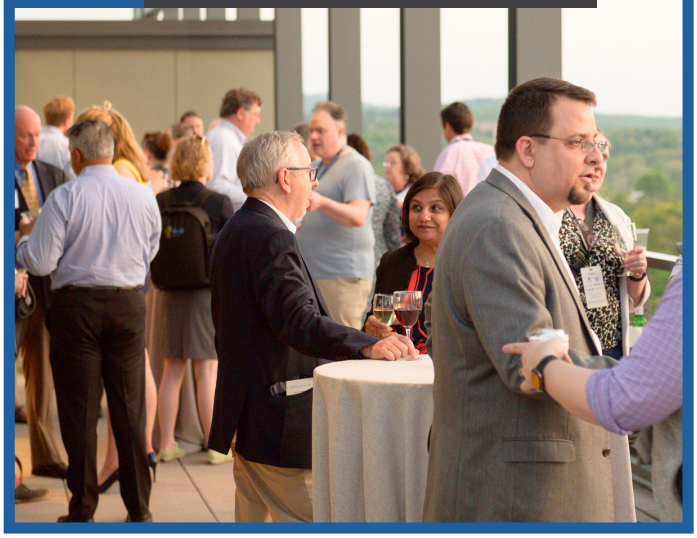
VIPC | VIRGINIA INNOVATION PARTNERSHIP CORPORATION

Connecting Innovators with Opportunity

FY2023 PROGRAM OVERVIEW

Click to Skip to Section

Commercialization



Entrepreneurial Ecosystems

Investments

Strategic Initiatives

VIPC | COMMERCIALIZATION

VIPC TOMTOM Reception 2023

Critical Early Funding for Entrepreneurs & University-based Researchers

Commercialization supports and advances early-stage technology commercialization throughout Virginia, engaging with both private sector entrepreneurs and university-based researchers as they bring their innovations to market. This team manages the Commonwealth Commercialization Fund (CCF), a funding program that provides grants of up to $100,000 to innovative Virginia-based startups and up to $300,000 to commercialization-minded university researchers, as well as targeted entrepreneurship support grants to Virginia's research universities. Commercialization also manages VIPC's Federal Funding Assistance Program, which provides mentoring and training to Virginia entrepreneurs and innovators seeking grants and contracts from the federal Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs. As the administrator for the Virginia Innovation Index, Commercialization also plays a crucial role in promoting R&D excellence in Virginia and in guiding policymakers and other stakeholders as they allocate funding to high-growth industries and industry cluster projects.

Commonwealth Commercialization Fund (CCF)

The CCF drives economic growth by providing grant funding for innovative technology research, development, and commercialization in

Virginia. CCF includes four distinct programs:

Private Sector Grant Program (PS): PS provides competitive grants of up to $100,000 for pre-seed and seed-stage privately-held Virginia-based technology and life science startups.

Higher Education Grant Program (HE): HE provides competitive grants of up to $300,000 for promising research commercialization projects within Virginia's public and private research universities, as well as at Virginia-based nonprofit research institutes.

Eminent Researcher Recruitment & Retention Grant Program (ERR): ERR provides up to $1,250,000 per year to each of Virginia's public research universities to help recruit and retain eminent researchers and faculty who will be leaders in commercializing and productizing promising research and development.

Entrepreneur-in-Residence Grant Program (EIR): EIR provides up to $250,000 per year to each of Virginia's public research universities to hire entrepreneurial mentors and postdoc fellows who work with faculty and researchers to orchestrate commercial "spin-outs" that leverage university-owned IP.

Beginning in FY22, Commercialization transitioned all CCF programs to rolling submissions, giving more flexibility to applicants and allowing the team to support more grant applications. 39 CCF grants were awarded during FY22, and 133 CCF grants were awarded during FY23. The Commercialization team supports dedicated business development and grant management functions. Seasoned directors oversee the CCF private sector, CCF higher education, and federal funding assistance programs. The Commercialization team takes pride in providing customized guidance and support to each of its applicants and awardees.
Click Here to Learn More

VIPC | COMMERCIALIZATION

At a Glance

$53 MILLION DEPLOYED BY CCF
2012 – Present

595 PROJECTS FUNDED
2012 – Present

$1.13 BILLION FOLLOW-ON FUNDING
21x leverage of Virginia Dollars

$620M PRIVATE INVESTORS

$472M NON-COV GRANTS

$221 MILLION GENERATED REVENUE
($57M Revenue Last 12 Months)

363 PATENTS GRANTED

11,000 (EST) TOTAL JOBS
(Direct & Indirect)

Private Sector

212	100
PS Grant Applications	PS Grants Awarded
Attracted & Reviewed	$6.5M in Commitments

Higher Ed (HE)

25
HE Grants Awarded
$1.9M in Commitments

Entrepreneur in Residence (EIR)

JMU JAMES MADISON UNIVERSITY · VCU · UNIVERSITY OF VIRGINIA · WILLIAM & MARY

4
EIR Grants Awarded
$666,000 in Commitments

Eminent Researcher Recruitment & Retention (ERR)

4
ERR Grants Awarded
$2.4M in Commitments

$2M Bond Funded

JMU JAMES MADISON UNIVERSITY · UNIVERSITY OF VIRGINIA · VIRGINIA TECH

October 2023

VIPC | ENTREPRENEURIAL ECOSYSTEMS

VIPC's Virginia Accelerator Network (VAN) Annual Meeting 2023

Strengthening Communities

Entrepreneurial Ecosystems was founded in 2020, to support and promote technology-focused entrepreneurial activities throughout the Commonwealth. Regional entrepreneurial ecosystems in Virginia have grown significantly over the last several years as communities recognize that successful science and technology startups are key drivers of economic growth and development. Across the state, a variety of entrepreneur support organizations (ESOs) are actively assisting promising entrepreneurs and collaborating with economic development stakeholders in the private and public sectors.

The Entrepreneurial Ecosystems team serves as a catalyst, connector, and convener for innovation ecosystem and startup community stakeholders throughout Virginia. These include startup accelerators, business incubators, innovation hubs, venture development organizations, regional technology councils, chambers of commerce, and other Virginia-based organizations that assist high-growth, innovation-led entrepreneurs through the early stages of business formation and growth.

Regional Innovation Fund (RIF) *Click Here to Learn More*
The RIF is a VIPC-administered state-funded program that provides competitive grants to leading Virginia-based entrepreneurial support organizations (ESOs) and ecosystem builders (EB). RIF grants provide operational and sustained funding for these partners and RIF grants can be renewed on an annual basis as grantees continue to make progress

toward projected outcomes and metrics. The first RIF grants were awarded in June 2021 and eight (8) awards have been made through June 30, 2023.

Primary objectives for Entrepreneurial Ecosystems in FY23 included:

- Support innovation ecosystems across the Commonwealth, including organizing, co-hosting and sponsoring regional and statewide events.
- Provide up to $2.0M in RIF funding to entrepreneurial support organizations and regional ecosystem builders.
- Map technology-based entrepreneurial ecosystem resources to determine gaps in services available at the regional and statewide levels.
- Establish and execute the Petersburg Founders Fund (PFF) a grant program to assist entrepreneurs and companies in one of Virginia's most economically-challenged communities.
- Establish a multi-tiered customer development pilot program to assist entrepreneurs in gaining access to commercial and governmental markets. (Responsibility was transferred to the Strategic Initiatives team)

For activities associated with Entrepreneurial Ecosystems, four (4) RIF grants totaling $650,000 were awarded in FY23 to enable regional entrepreneurial support and ecosystem-building initiatives. These grants supported organizations located in GO Virginia regions 2 (Roanoke-Blacksburg-Lynchburg), 4 (Richmond-Petersburg), 8 (Shenandoah Valley), and 9 (Charlottesville).

Additionally, Entrepreneurial Ecosystems provided $200,000 to support the Virginia SBDC Network's Innovation Commercialization Assistance Program (ICAP) which provides mentoring and training for very early-stage founders across the Commonwealth. These efforts increased the geographic reach of EED to all nine GOVA Regions.

These programs anticipate $110.25 million of initial and follow-on capital and 453 jobs created over the next 5 years from 1,067 entrepreneurs educated and 459 companies assisted. Based on interim, final, and out-year reporting for RIF and ICAP activities funded from inception through FY23, funded programs reported the following cumulative outcomes:

- $179.3 million in capital raised
- 971 entrepreneurs educated
- 1,263 companies assisted
- 468 jobs created
- 15,591 mentoring hours supported
- 117 events held with 4,926 attendees
- 27 new companies formed
- 42 regional collaborations supported

Additionally, Entrepreneurial Ecosystems provided $200,000 to support the Virginia SBDC Network's Innovation Commercialization Assistance Program (ICAP) which provides mentoring and training for very early-stage founders across the Commonwealth. These efforts increased the geographic reach of EED to all nine GOVA Regions.

VIPC | ENTREPRENEURIAL ECOSYSTEMS

At a Glance

Innovation Ecosystem Development

$200K provided to the GMU Innovation Commercialization Assistance Program (ICAP) to enhance pre-acceleration services for tech entrepreneurs across Virginia. Expanded the Virginia Accelerator Network (VAN), providing technical assistance and professional development opportunities for regional entrepreneur support organizations and ecosystem builders.

$650k in grants

Regional Innovation Fund

The Regional Innovation Fund made four grants for a total of $650K to entrepreneur support organizations based in the in Charlottesville, Greater Richmond, Roanoke-Blacksburg and Shenandoah Valley regions.

Petersburg Founders Fund

Launched and executed a new grants program to assist entrepreneurs in one of Virginia's most economically-challenged communities in conjunction with Govorner Youngkin's "Partnership for Petersburg" Initiative. A total of $500k in Petersburg Founders Fund grants was provided to 20 local startups and small businesses.

October 2023

VIPC | INVESTMENT

Lighthouse Labs Partner Parade

Investing in Virginia Companies

Investments was established to support VIPC Virginia Venture Partners and any new investment vehicles approved by the VIPA and VIPC Boards. The purpose of Investments is to give Virginia a competitive advantage with an array of funding mechanisms provided under section § 2.2-2355 related to direct and indirect investments.
Historically, Virginia Venture Partner has focused on direct investment, placing equity investments in early-stage science and technology-based companies through a family of funds spanning multiple generations of tech, life science, and clean energy theses.

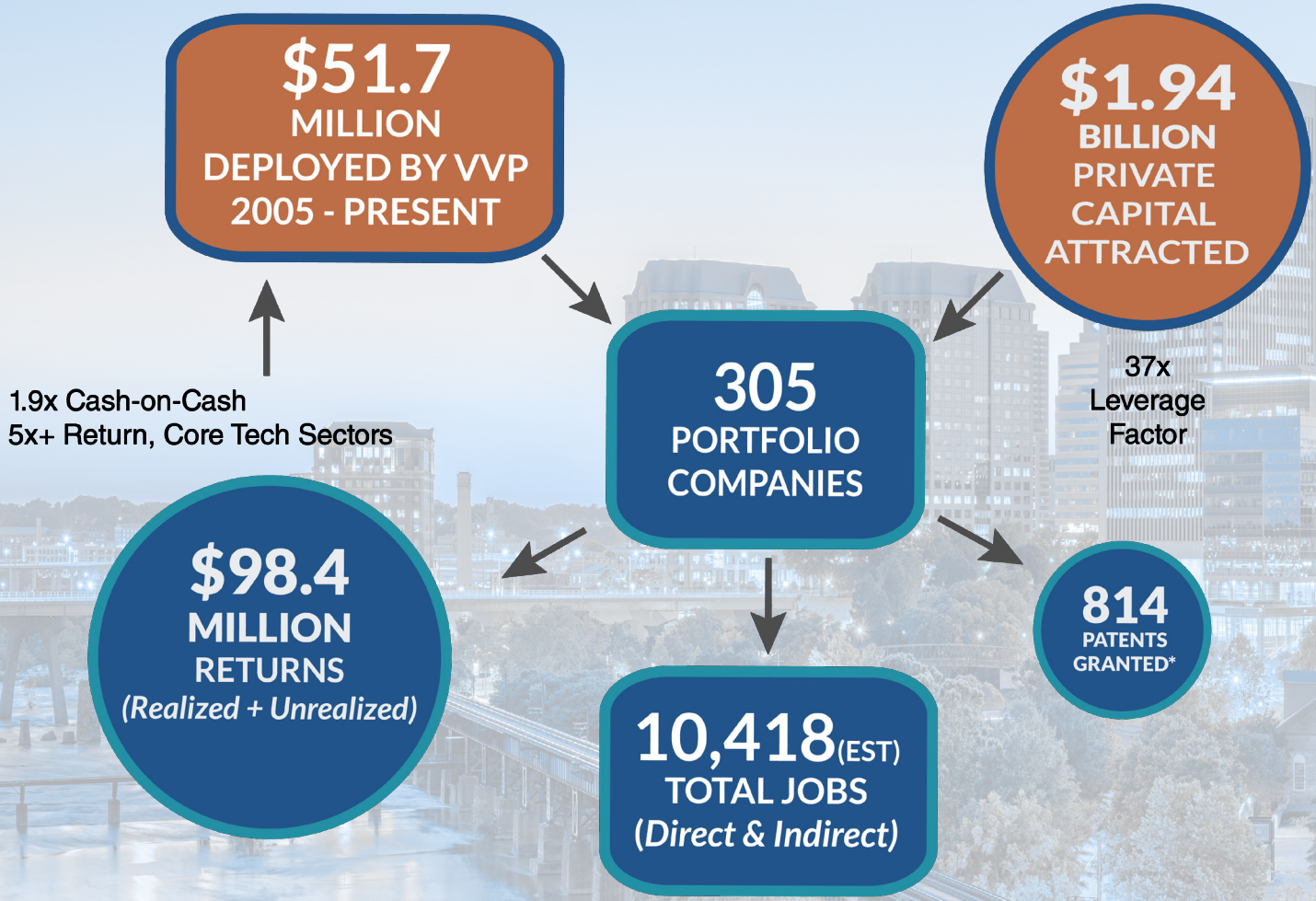
Launched in 2018, the Virginia Founders Fund joined these sector-oriented funds, placing investments in Virginia communities traditionally underserved by risk capital. In FY22, Virginia Venture Partners added the Virginia Partners Fund, providing a specific focus on Virginia's traditionally underserved geographies.

VIPC management oversees VVP and is advised in investment decisions by the Virginia Venture Partners' Investment Advisory Board (IAB). *Click Here to Learn More*

Investments is also advised by an Advisory Committee on Investment, which offers guidance on new investment programs and policies.

VIPC | INVESTMENT

At a Glance



October 2023

VIPC | STRATEGIC INITIATIVES

Electra.Aero Hyrid-Electric STOL Demonstration

Embracing Innovation in the Commonwealth

Strategic Initiatives will "provide leadership for strategic initiatives that explore and shape programs designed to attract and grow innovation in the Commonwealth" (§ 2.2-2355). FY24 will continue efforts on the execution of four primary activities: Smart Communities, Unmanned Systems, the Public Safety Innovation Center, and the DHS SCITI Labs program. Strategic Initiatives will also continue to develop the following areas continued from FY23:

- A Maritime Center of Excellence centered around Hampton Roads, continuing work with VISA around the Port of Virginia and with Virginia Sea Grant around sea level rise and waterways impacts.
- Workforce of the Future efforts including STEM Camps and Clubs with middle/high schools, and Augmented Reality/ Virtual Reality (AR/VR), including law enforcement and crisis intervention training.
- Quantum computing, focused specifically on the development of quantum computing-based software solutions for areas such as Advanced Logistics.
- Other potential initiatives and external funding opportunities under § 2.2-2355 will be pursued during FY24 as opportunities provide possible mission support and available staff time allows.

Primary objectives for Strategic Initiatives in FY23 include:

Public Safety Innovation Center at VIPC *Click Here to Learn More*

Assist with the development and implementation of new and/or improved technology for use by public safety emergency responders at the local, state, and federal level.

Key goals of this strategic vision include:

- Establish relationships for the exchange of concepts and best practices between the PSIC and other public safety organizations such as local responders, state agencies, commercial or non-profit groups, the Department of Homeland Security, and other federal government agencies/entities.
- Seek out and assess new innovative technologies that could potentially aid and benefit public safety practitioners.
- Assist in the development, testing, and validation of new technologies and equipment.
- Identify, facilitate, and support new initiatives and pilot projects that will further the transition to practice and use of innovative technologies for public safety.
- Identify and help implement and deliver public safety training, primarily around new technologies and capabilities.
- Provide and/or coordinate provision of public safety Subject Matter Expertise (SME) to local and state public safety and other government entities in the Commonwealth.
- Continue to build upon the relationship with the Commonwealth Virginia Department of Public Safety and Homeland Security Secretariat and the federal Department of Homeland Security to advance public safety across various areas to include use of drones, specialized training activities, operational experimentation, IoT, and related technologies, emerging activities relating to Port security and safety, and other public safety centric technology advancement.

SCITI Labs *Click Here to Learn More*

The SCITI Labs Commercial First Innovation program will continue with the U.S. Department of Homeland Security (DHS) in FY24. Management has set a conservative realized revenue target of $3M for SCITI Labs in FY24. The primary focus of this program will be continued strong execution against the defined Program Plan and customer technology interests.

Key priorities in support of this strategic vision include:

- Detection of environmental threats such as flood and wildfire ignition using networked IoT sensors.
- Smart buildings and communities.
- UAS/C-UAS and other Public Safety-related technologies.

Smart Communities *Click Here to Learn More*

Key priorities in support of this strategic vision include:

- Activities will continue to focus on pilot projects across Commonwealth, with the intent being “Community-Driven Innovation.”
- Continued support of early stages of initiatives that develop capabilities identified and desired by the communities involved, including pilot projects with a diverse set of communities Project selection will seek to achieve geographic diversity across Commonwealth, in addition to technology and vendor diversity, with a preference for smaller, innovative Virginia companies.
- Initial areas of focus include: IoT security and privacy, indoor public building and environmental sensors, and continued integration of various pilot activities with the Commonwealth Data Trust model. *Click Here to Learn More*

The Virginia Unmanned Systems Center at VIPC *Click Here to Learn More*
The nexus of Virginia’s activity in UxS – Land, Air, Sea, Space.

Key priorities in support of this strategic vision include:

- Maintain collaboration between businesses, investors, universities, entrepreneurs, and government organizations.
- Continue to support rapid growth of the UxS industries in Virginia,continuing efforts towards infrastructure to support growth of heavy cargo transport and eventually people transport (Advanced Air Mobility, AAM).
- Create new pilot projects with Virginia state agencies and private companies to demonstrate value proposition of UxS technology.
- Develop partnerships for Virginia companies with major service providers (package delivery, public safety, and infrastructure).

VIPC | STRATEGIC INITIATIVES

At a Glance

Virginia Unmanned Systems Center at VIPC

VIRGINIA SMART COMMUNITY TESTBED STAFFORD, VA

Virginia PUBLIC SAFETY Innovation Center at VIPC

VIPC | VIRGINIA INNOVATION PARTNERSHIP CORPORATION
SMART COMMUNITIES

Federal DHS Funding Deployed via VIPC Strategic Initiatives

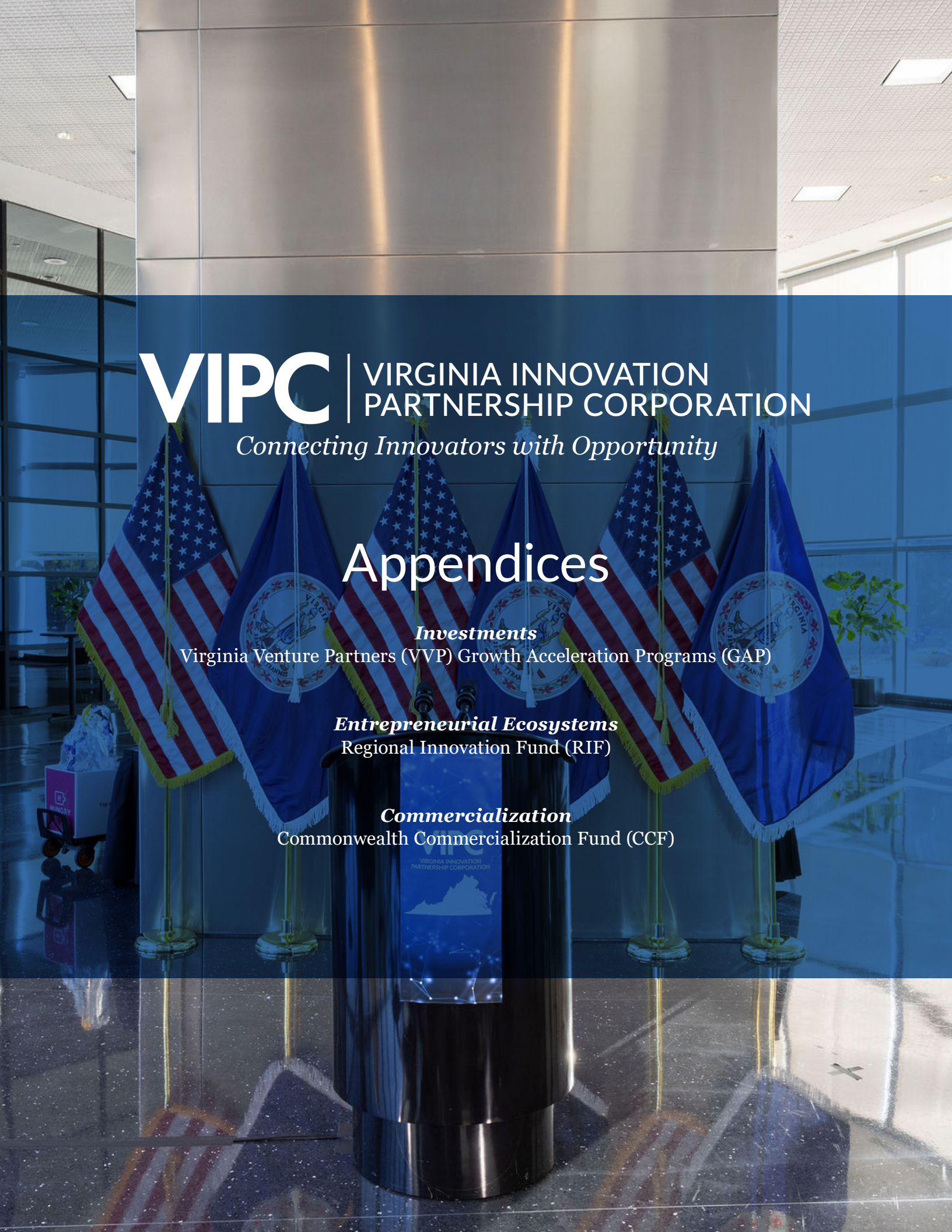
Total S&T Funding to 20 Technologies/Companies	Total Private Investment Attracted	Funding Leverage Factor
$18.54 MILLION	**$190.9 MILLION**	**10.3x**

Total New Jobs (EST)
1,808 Direct & Indirect Jobs

Department of Homeland Security Science and Technology Directorate

SCITI LABS

October 2023



VIPC | VIRGINIA INNOVATION PARTNERSHIP CORPORATION

Connecting Innovators with Opportunity

Appendices

Investments
Virginia Venture Partners (VVP) Growth Acceleration Programs (GAP)

Entrepreneurial Ecosystems
Regional Innovation Fund (RIF)

Commercialization
Commonwealth Commercialization Fund (CCF)

Virginia Venture Partners (VVP)
Growth Acceleration Program (GAP)

The FY2023 activity below is provided in response to Section 127.D.2A of the Appropriations Act.

Since GAP investments are, by design, pre-seed and 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. FY23: 54 companies
   b. Inception-to-date: 305 companies[1]

II. The state investment and amount of privately leveraged investments per company:
   a. FY23: VVP invested $9.9M and leveraged $96.7M in angel and venture dollars on FY23 investments. During FY23, VVP's investments leveraged $364.2M.
   b. Inception-to-date: VVP has invested $51.7M and has leveraged $1.9B in angel and venture dollars, $364.2M of which was leveraged during FY23.

III. The estimated number of jobs created or preserved during FY23:
   a. FY23: 704 direct jobs in companies invested in by VVP in FY23.
   b. Inception-to-date: In FY23, companies reported that 3,680 direct jobs were created or preserved by companies invested in which VVP invested FY23 or before.

IV. The estimated tax revenue generated during FY23[2]:
   a. FY23 investments: $3,401,518
   b. Inception-to-date: $17,850,690

V. The number of companies who have received investments from VVP fund still operating in Virginia*
   a. FY23 investments: 54 out of 54
   b. Inception-to-date: 157 out of 305i[2]

Of the 148 companies no longer operating in Virginia:

I. Nine (9) are active VVP GAP Funds portfolio companies that have moved from the Commonweal:
   1. Six (6) moved from Virginia to other states after the three-year requirement to be headquartered in Virginia timed out.
   2. One (1) moved from Virginia within the three-year requirement and VIPC renegotiated favorable investment terms in lieu of a repayment fee.
   3. Two (2) were part of MACH37 and winding down operations. VIPC intends to write-off and/or begin the collection process.

II. 139 are Inactive companies
   1. 60 have failed
   2. 79 have been acquired or paid back VIPC
      a. The above total of 79 includes one company for which VVP received shares of an acquiring company in lieu of a cash payout. While this acquiring company was itself acquired prior to the 6/30/23 date of this report, VVP did not have the opportunity to redeem its shares prior to that date. For this reason, the acquiring company in which VVP holds shares is not included in the total of 79, above, or elsewhere as an independent investment.

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

VI. Realized Return on Investment
   a. FY23 investments: $0
   b. Inception-to-date: $26,509,498

VII. The number of investments that failed:
   a. FY23 investments: 0
   b. Inception-to-date: 60 failures, $6,238,600 invested

VIII. Number of companies created or expanded and the number of patents filed during FY23:
   a. FY23:
      i. Companies created or expanded: 54 companies
      ii. Number of Patents filed: 96

   b. Inception-to-date:
      i. Companies created or expanded: 305[2]
      ii. Number of Patents filed during FY23: 171

2 VVP has invested in 305 companies from inception through FY2023. This is a downward adjustment from 309 total companies in the portfolio inception-to-date due to the following reasons (309 + 1 (item #1 below) – 5 (item #2 below) = 305:

1. *Two of the invested companies merged into one company.*
2. *Five of the invested companies were acquired and, as part of the acquisition, VVP was granted ownership in the five respective new entities without additional cash investment.*

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

a. FY23 investments: 54 of 54 in Virginia (one company failure)

i. Region 1: 0
ii. Region 2: 3
iii. Region 3: 0
iv. Region 4: 11
v. Region 5: 3
vi. Region 6: 0
vii. Region 7: 31
viii. Region 8: 0
ix. Region 9: 6

b. Inception to Date: 157 out of 166 active companies are based in Virginia

i. Region 1: 2
ii. Region 2: 8
iii. Region 3: 2
iv. Region 4: 27
v. Region 5: 10
vi. Region 6: 0
vii. Region 7: 90
viii. Region 8: 1
ix. Region 9: 17

[3] *Corporate and personal income tax revenue estimated. Corporate tax revenue based on company's actual revenue in CY2022 Q3 and Q4 (assumes 50% of total reported CY2021 revenues) and CY2023 Q1 and Q2. Personal tax revenue assumes an average salary of $125k per Virginia employee.*

Regional Innovation Fund (RIF)

The FY2023 activity below is provided in response to Section 127.D.2B of the Appropriations Act.

B(i) and B(ii) Projects Supported to Date

The Regional Innovation Fund (RIF) provides competitive grants to Virginia-based entrepreneurial support organizations (ESOs). In FY23, the RIF capacity building grants were awarded to four (4) entities, bringing the number of projects funded since inception to total eight (8). These grants totaled $650,000 bringing the total since program inception to $1,450,000 awarded to organizations to perform regional entrepreneurial support services.

B(iii) - (v) Anticipated and Realized Program Impacts

For the four (4) projects awarded this year, anticipated results as projected by awardees included the following information.

I. $100 million in capital to be raised over 5 years
II. 378 jobs to be created over 5 years
III. 159 companies to be assisted during the grant period
IV. 9 new companies to be formed during the grant period
V. 967 entrepreneurs educated during the grant period
VI. 2,856 mentor hours to be facilitated during the grant period
VII. 113 events held with 2,164 attendees during the grant period

From the two (2) FY21 awardees that submitted out-year reports and the two (2) FY22 awardees that submitted annual reports in FY23, realized program impacts from inception to date include:

I. $89,096,713 in capital raised
II. 199 jobs created
III. 80 companies assisted during the grant period
IV. 2 new companies formed during the grant period
V. 30 entrepreneurs educated during the grant period
VI. 2,307 mentor hours facilitated during the grant period
VII. 40 events held for 2,514 attendees during the grant period
VIII. 12 regional collaborations supported.

B(iv) Sources of Investment
Additional sources of investment for the eight (8) projects funded under this program to date include $775,000 in total funding from the US Navy Mid-Atlantic Tech Bridge, Radford University Foundation, Roanoke City, Verge, Roanoke-Blacksburg Technology Council, Virginia Tech Foundation, Truist Foundation, Shenandoah Community Capital Fund, Capital One, Activation Capital, Kaleo Legal, Albemarle County EDA, Charlottesville City EDA, and the Quantitative Foundation.

B(vii) Geography Served
To date, the program has supported organizations in GO Virginia Regions 2 (Roanoke-Blacksburg-Lynchburg), 4 (Richmond-Petersburg), 5 (Hampton Roads), 8 (Shenandoah Valley), and 9 (Charlottesville).

VIPC | *ECONOMIC PERFORMANCE OF KEY AREAS*

Commonwealth Commercialization Fund (CCF)

The FY2023 activity below is provided in response to Section 127.D.2C of the Appropriations Act.

During FY2023, VIPC awarded 133 CCF grants across four distinct CCF programs, with an associated commitment of $11,455,841 of Commonwealth of Virginia funding:

- CCF Private Sector (PS): 100 grants totaling $6,496,850
- CCF Higher Education (HE): 25 grants totaling $1,873,514
- CCF Entrepreneur-in-Residence (EIR): 4 grants totaling $665,874
- CCF Eminent Researcher Recruitment and Retention (ERR): 4 grants totaling $2,419,603 (includes $2,000,000 in lab & equipment funded with VRIF bond funding)

i. Number of research grants awarded by domain area:

Industry Sector	*Count*	*Amount Funded*
Advanced manufacturing	10	$ 609,996
Aerospace	6	$ 415,000
Agriculture	7	$ 470,000
Autonomous systems	2	$ 150,000
Communications	4	$ 299,150
Cybersecurity and cyber-physical systems	11	$ 944,742
Energy	5	$ 1,495,000
Environment	3	$ 168,740
IT (includes data science and analytics)	38	$ 3,496,000
Life and health sciences	36	$ 2,704,513
Modeling and simulation	4	$ 300,000
Nuclear physics	1	$ 75,000
Transportation	6	$ 327,700
	133	**$ 11,455,841**

ii. State investment per research project:

CCF Awardee	Awardee POC	Grant Amou
Carilion Medical Center	Dr. Umar Sofi	$74,977
GMU	Dr. Remi Veneziano	$74,954
GMU	Dr. Alessandra Luchini	$75,000
GMU	Dr. Fatah Kashanchi	$75,000
GMU	Dr. Mariaelena Pierobon	$75,000
GMU	Dr. Lee Solomon	$75,000
JMU	Mary Lou Bourne, Dr. S. Keith Hc	$40,000
JMU	Dr. Anthony Tongen	$69,603
Liberty	Dr. Christopher Kepley	$73,740
UVA	Dr. T. Brent Gunnoe	$75,000
UVA	Dr. Steven Zeichner	$75,000
UVA	Dr. Steve Caliari	$75,000
UVA	Dr. Jiang He	$75,000
UVA	Dr. Matthew Meyer	$74,868
UVA	Dr. Molly Hughes	$75,000
UVA	Dr. Richard Chylla	$250,000
UVA	Dr. Frederick Epstine	$1,250,000
VCU	Dr. Ravi Hadimani	$75,000
VCU	Dr. Xuewei Wang	$75,000
VCU	Dr. Youngman Oh	$75,000
VCU	Dr. Vamsi Yadavalli	$75,000
VCU	Dr. Supriyo Bandyopadhyay	$75,000
VCU	Dr. Ivelina Metcheva	$249,874
VCU	Dr. Thomas Roper Jr	$75,000
VCU	Dr. Michael McClure	$75,000
VT	Dr. Mark Williams	$75,000
VT	Dr. Abby Whittington	$74,996
VT	Dr. James Heflin	$1,000,000
VT	Dr. Guo-Quan Lu	$75,000
VT	Dr. James Heflin	$100,000
W&M	Dr. Ran Yang	$74,979
W&M	Dr. Gang Zhou	$75,000
W&M	Dr. Jason McDevitt	$126,000
Advanced Aircraft	Mr. Paul Allen	$75,000
Agricision	Ms. Sheri Neuhofer	$75,000
allocortech	Von Botteicher	$75,000
AnswersNow	Mr. Jeff Beck	$75,000
Aravenda	Mr. Jeff Genet	$75,000
AtWork	Mr. Jin Chun	$75,000
Blue Vigil	Mr. Carl Miller	$75,000
Cairina	Dr. Caleb Stine	$20,000
Capango	Mr. Stefan Midford	$75,000
ChowCall	Mr. Todd Waldemar	$75,000
ClearView Surgical	Mr. Dan Neuwirth	$75,000

CCF Awardee	Awardee POC	Grant Amou
CodeLock	Mr. Brian Gallagher	$75,000
Criticality Sciences	Ms. Susan Ginsburg	$75,000
Cybermonic	Dr. Benjamin Bowman	$75,000
Cynalytica	Mr. Richard Robinson	$75,000
DataClassroom	Dr. Aaron Reedy	$75,000
Ditto	Ms. Elizabeth Heinberg	$20,000
Ditto	Ms. Elizabeth Heinberg	$75,000
Dot Drives	Mr. Chris Hayek	$75,000
Dot Drives	Mr. Sal Ferlise	$20,000
EDai	Dr. Sean Brazier	$75,000
EDTCH	Mr. Konstantin Andreev	$75,000
Electra.Aero	Mr. Christopher Courtin	$75,000
ElectroTempo	Mr. Patrick Finch	$75,000
Enabled Engineering	Dr. Kumar Kandasamy	$20,000
Federal Foundry	Mr. Geoffrey Orazem	$75,000
Fermi Energy	Dr. Feng Lin	$20,000
Fermi Energy	Dr. Zhengrui Xu	$75,000
Floorwire	Ms. Abby Caldwell	$75,000
Gigzilla	Mr. Justin Toft	$20,000
Givio	Mr. Abhi Patwardhan	$75,000
Grantable	Mr. Philip Deng	$75,000
GrantExec	Mr. Ryan Alcorn	$75,000
Healp	Ms. Elizabeth Tikoyan	$20,000
Healthcare Quality Consultants	Dr. Monika Virk	$75,000
HIO	Ms. Jennifer Finn	$20,000
HUB Corporation	Mr. H. Tolison Humphrey	$20,000
Humanitru	Ms. Megan Newman	$75,000
Industrial Intelligence	Mr. George Armbruster	$75,000
iSpine Ingenuity	Dr. Michael DePalma MD	$75,000
Jeeva	Dr. Harsha Rajasimha	$75,000
KAPPA AgTech	Mr. Schuyler Milton	$75,000
Karambit.AI	Mr. Andrew Hendela	$75,000
Karambit.AI	Mr. Andrew Hendela	$20,000
Kenkashi Microbes	Ms. Amelia Cassie Wilson	$20,000
Kilsar	Mr. Brendan Lawlor	$75,000
Kilsar	Mr. Brendan Lawlor	$20,000
Kinometrix	Ms. Devina H Desai MPH	$75,000
KnoNap	Ms. Danya Sherman	$75,000
Linebird	Mr. Michael Beiro	$75,000
Liquet Medical	Mr. Derek Hall	$75,000
LLAMAWOOD	Mr. Hunter Guerin	$75,000
Luminoah	Mr. Hill Johnson	$75,000
Luna Labs USA	Dr. Kelley Virgilio	$75,000
Medentum Innovations	Dr. Starla Kiser	$75,000

CCF Awardee	Awardee POC	Grant Amount
Micro Harmonics	Ms. Diane Kees	$75,000
Mill Mountain Technologies	Mr. Mark Lucas	$75,000
MINTangible	Ms. Amyli McDaniel	$75,000
Mobius Materials	Ms. Margaret Upshur	$20,000
Mobius Materials	Ms. Margaret Upshur	$75,000
MOVA	Mr. Matthew Gulotta	$75,000
MOVA	Mr. John Schott	$20,000
Nasoni	Mr. Steve Waddell	$75,000
NearStar Fusion	Dr. Franklin Witherspoon	$75,000
Nessle	Dr. Anne Carly Buxton	$75,000
NFTYDoor	Mr. Mark Schacknies	$20,000
OccasionGenius	Mr. Nathaniel Marcus	$75,000
One Up Technologies	Mr. Mehmet Yigit Guney	$75,000
Organizing4Innovation	Dr. Floriena Blindenbach-Drie:	$75,000
Pangea Chat	Mr. William Jordan-Cooley	$75,000
Parabon NanoLabs	Dr. Steven Armentrout	$75,000
Pixelar	Mr. Dennis Perreault	$75,000
Polaris Semiconductor	Dr. Matthew Lumb	$75,000
Publication Academy	Dr. Jay Phoenix Singh	$75,000
Qentoros	Mr. Michael Miller	$20,000
Qentoros	Dr. Jessica Gilbertie	$75,000
ReachSuite	Mr. Collin Smith	$75,000
Reelist	Ms. Catherine Schuck	$20,000
Reelist	Mr. Sean Worden	$75,000
Rimstorm	Mr. Ben Gerenstein	$75,000
RiPSIM	Ms. Margaret Howell	$75,000
Rizkly	Mr. Chor-Ching Fan	$75,000
Saltenna	Mr. W. Mark Barry III	$74,150
Scale Materials	Dr. Liudmyla Prozorovska	$75,000
Schribble	Mr. Chaun Burnette	$75,000
Sentek Instrument	Mr. Dyon Buitenkamp	$75,000
Skyphos	Mr. Elliot McAllister	$75,000
Splice	Mr. Chris Ruddick	$62,700
Sync Layer	Mr. John Sinclair	$75,000
Teleqo Tech	Ms. Katherine Hunt	$75,000
The Spaceport Company	Mr. Thomas Marotta	$75,000
Tidal Cyber	Mr. Richard Gordon	$75,000
Tiny Cargo	Dr. Spencer Marsh	$75,000
Torev	Mr. Rory Brogan	$75,000
Trova Commercial Vehicles	Patrick Collignon	$20,000
Veracity Verification Solutions	Ms. Crystal Wilson	$75,000
Vistaly	Mr. Matthew O'Connell	$75,000
Viva Vita	Ms. Carleigh Berryman	$75,000
Wiretough Cylinders	Dr. Ashok Saxena	$75,000
WorkReels	Mr. Rick Jones	$75,000
133		$11,455,841

iii. Number of eminent researchers attracted and retained: 4
iv. Additional research dollars leveraged as a result of the state investment: $185,511,582
v. Number of new products completed/released to production: 144
vi. Startups created from the research investment: 2
vii. New licenses granted to companies within Virginia: 9
viii. New licenses granted to companies outside Virginia: 50
ix. Geographic distribution of the grant recipients:

GO Virginia Region	Count	Amount Funded
Region 1	2	$ 150,000
Region 2	26	$ 2,403,713
Region 3	0	$ -
Region 4	26	$ 2,014,874
Region 5	16	$ 1,128,679
Region 6	0	$ -
Region 7	44	$ 3,134,104
Region 8	5	$ 279,603
Region 9	14	$ 2,344,868
	133	**$ 11,455,841**

Outcomes were reported to VIPC by CCF, CRCF, and VRIF award recipients primarily between July and September 2023 and generally cover the preceding 12-month period. Award recipients are required to provide VIPC with commercialization outcomes for five years following the conclusion of their project. In the FY2023 outcomes reporting cycle, 263 awardee reports were due, and VIPC received outcomes from 262 of them – a 99.6% response rate. In addition, several award recipients who were outside their five-year commitment voluntarily provided data that contributed to the FY2023 outcomes that follow. Since-inception figures, based on outcomes reported through September 2023, are also shared for follow-on funding, revenue, and products and services.

Funding	
Follow-On Funding	Revenue
$195,388,881	$56,872,237

In FY2023, awardees reported over $195 million in incremental follow-on funding, up from $166 million reported in FY22 and $145 million reported in FY2021. This FY2023 funding total consisted of $40 million in grants, $147 million in private investment, $4.7 million from other VIPC funding programs, and $3.4 million from other Commonwealth of Virginia sources, along with in-kind contributions typically consisting of waived salaries or equipment donations. Since the program's inception, awardees have reported $1.13 billion in follow-on funding (representing over 21X leverage for state funding).

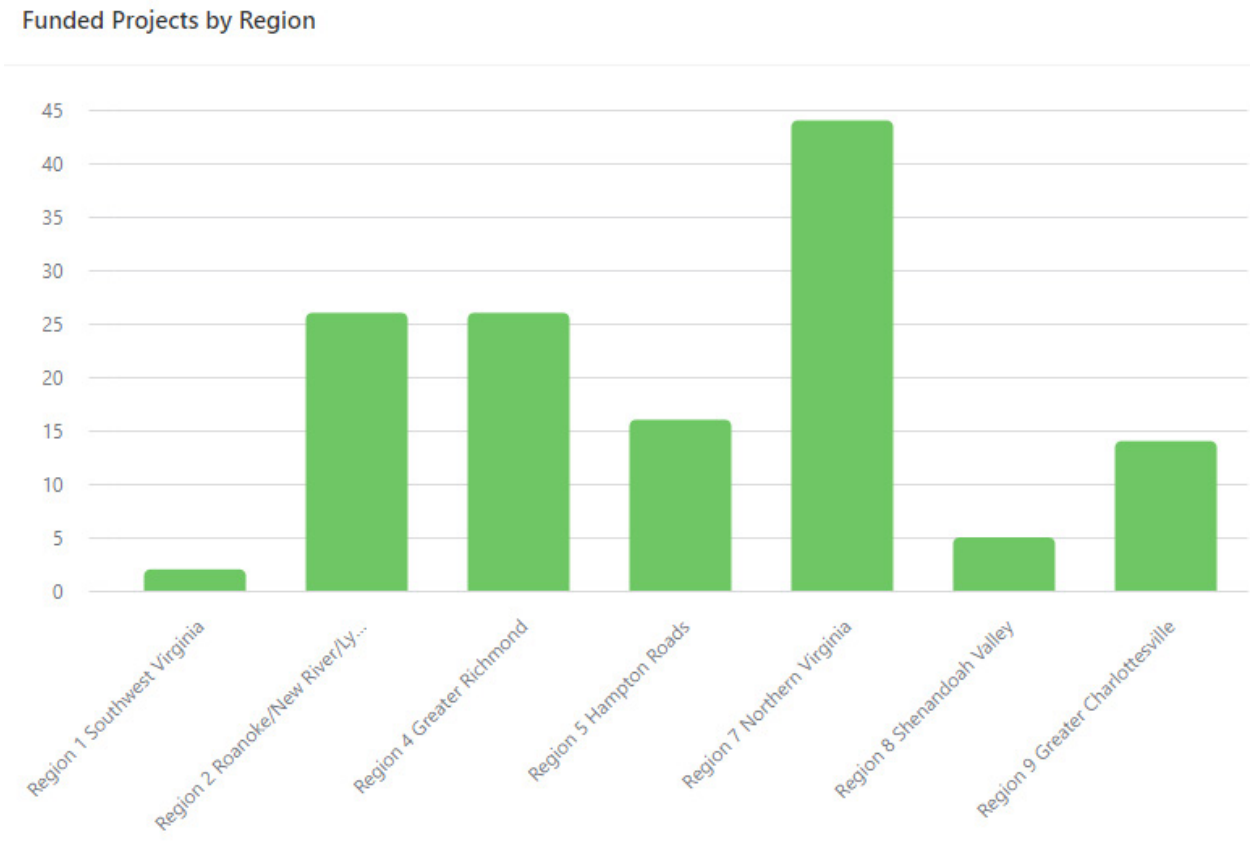
In FY2023, awardees also reported sales and/or revenue totaling nearly $57 million, up from $38 million in FY2022 and $23 million in FY2021. Sixteen awardees reported revenue of more than $1 million each over the past year, with three awardees reporting more than $3 million and one of those awardees reporting more than $6 million. Since the program's inception, awardees have reported revenue totaling $223 million.

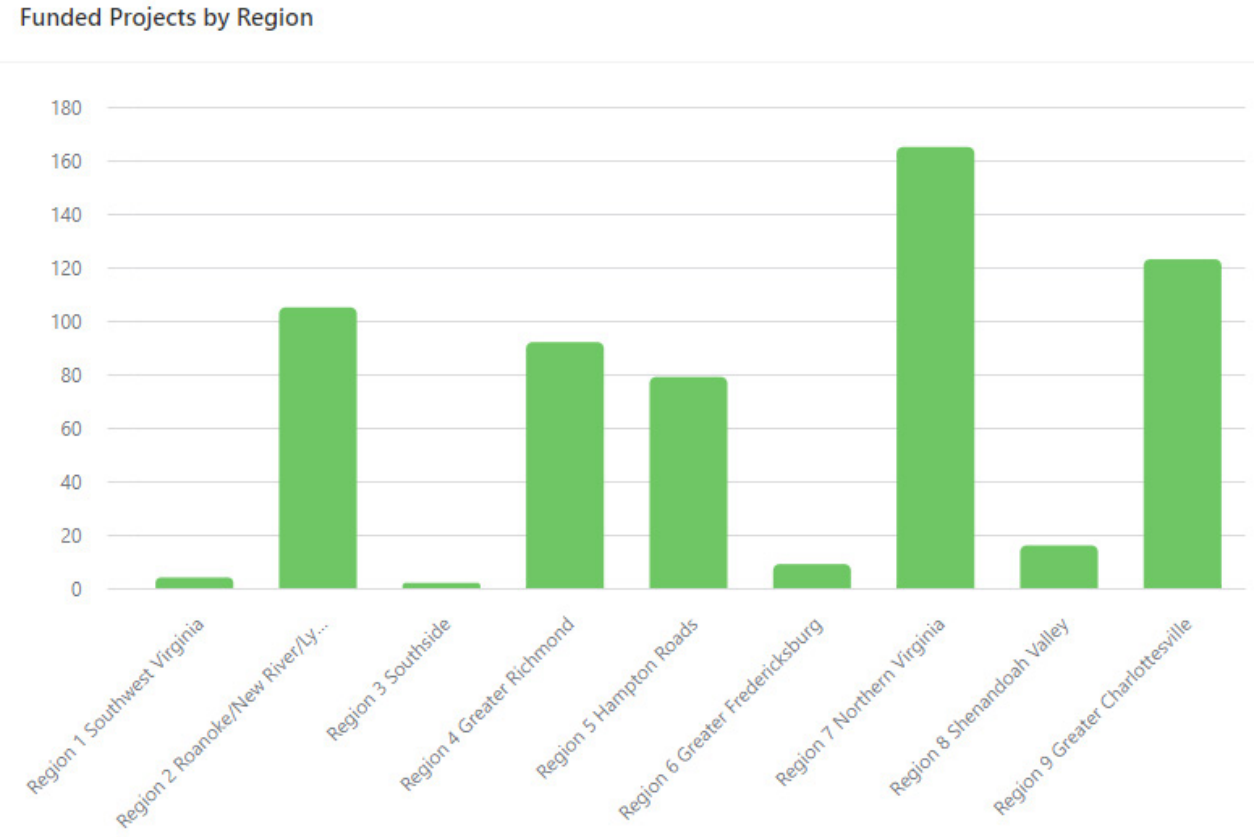
In FY2023, awardees reported total headcount of 1,988 supporting their organizations, up from a total headcount of 1,371 in FY2022 and 842 in FY2021. Headcount is made up of full- and part-time employees, contractors, and interns.

395 products or services were reported as introduced to the market in FY2023 or planned for release over the next year.

Award recipients reported intellectual property (IP) creation, including U.S., international, PCT, and provisional patents. Their reports cited 86 patents granted and 331 patents pending.

During FY2023, CCF awards were made to recipients in seven of the nine GO Virginia regions:





Anticipated Changes FY2024

Recognizing the significant role that innovation contributes to Virginia's economic future, Governor Youngkin recently released a comprehensive economic development policy - "Compete to Win". The policy includes Innovation as one of six strategies to accelerate economic development in Virginia.

Drive Innovation: Strengthen a statewide culture conducive to entrepreneurship by enhancing connections between businesses, universities, investors, and talent and reducing burdensome regulations for small businesses and early-stage companies.

To establish Virginia as a top state to start and grow a business, Virginia will focus on the following priorities:

- Identify opportunities to enhance state business culture to attract to early-stage investors, including potential incentives for early-stage capital investments and enhancements to related regulations.
- Expand and leverage accelerator and incubator networks to spur innovation and startup creation in the Commonwealth.
- Leverage VIPC's Entrepreneur-in-Residence Program to promote expanded tech transfer and commercialization support for Virginia's universities.
- Leverage GO Virginia and VIPC's Regional Innovation Fund to expand investment in regional innovation ecosystems and staff to connect entrepreneurs, universities, and businesses.
- Identify opportunities to ease regulatory and tax burdens for Virginia small businesses and startups, including business registration costs, BPOL, property, and unemployment insurance tax reform.
- Expand support and access to capital for small and veteran-owned businesses and promote growth and opportunities for Small, Woman-, and Minority-owned (SWaM) Businesses.

Be a catalyst for the Commonwealth's entrepreneurial ecosystem.

- Collaborate with Centers of Excellence (COE) on programs and funding to ensure synergy.
- Deploy Regional Innovation Fund (RIF) grants to ensure stable ecosystem support.
- Collaborate with accelerators, incubators, university-based entrepreneurial programs.
- Develop a continuum of support services and investment tools.

Support full innovation life cycle, from research to commercialization.

- Expanded partnership with feds (DHS, NIH, EDA) for innovation.
- Commercial-first innovation.
- Expand path-to-market partnerships with companies, early adopters & communities.
- Pilot projects to prove & validate product/functionality.
- Living laboratory facilities and operational adoption partners to reduce "valley of death".

Define and prioritize strategic technology domains for investment.

- Launch Virginia Innovation Index.
- Collaborate with other technology-focused and economic development entities.
- Incorporate emerging Federal priorities such as resiliency.
- Incorporate commercial market trends such as autonomy, AR/VR, personalized medicine.
- Focus on industries and research with potential for Virginia leadership.
- Continuous evolution of technology baseline & focus.