

Strategic Plan
(2012-2014 Version 1)

Innovation and Entrepreneurship Investment Authority (934)
Agency Plan

Mission Statement

The Innovation and Entrepreneurship Investment Authority (IEIA), carries out its mission through an operating non-profit called the Center for Innovative Technology (CIT). CIT accelerates the next generation of technology and technology companies.

Vision Statement

CIT will achieve national recognition as the premier services provider engaged in technology company creation and company growth.

Information Technology

Current Operational IT Investments

The Center for Innovative Technology (CIT) works with Virginia Information Technologies Agency (VITA) to manage its network, hardware, and software.

Factors Impacting the Current Agency IT

CIT completed an upgrade to its hardware and software during Fiscal Year 2012.

Proposed IT Solutions

CIT is in a stable environment for its IT solutions.

Financial Overview

Besides the Commonwealth of Virginia appropriation, CIT received funding for program services with the federal, state and local governments. This funding adds to the appropriated funds and results in budgeted revenues of \$14.5 million. The 2014 revenue target of \$14.5 million represents an 8% increase over the current 2013 revenue forecast.

Elevated funding for Fiscal Year 2014 is the result of the following key drivers:

- Seed funding for MACH37™, the Cyber Accelerator
- Sustained Commonwealth appropriations for the GAP Fund
- Federal grant revenue for broadband program funding
- New contract funding from the Department of Defense (DOD)

In addition to the funding CIT receives directly, CIT is designated as the fiscal agent for \$4.8 million of funding for the Commonwealth Research Commercialization Fund (CRCF). The combined revenues of \$14.5 million for CIT and \$4.8 million for CRCF funding provide CIT with fund deployment capability of \$19.3 million to facilitate technology programs for the Commonwealth in Fiscal Year 2014.

Budget Component	2013 GF	2013 NGF	2014 GF	2014 NGF
Base	4,973,750	0	4,973,750	0
Changes to Base	953,127	0	3,308,750	0
Total	5,926,877	0	8,282,500	0

Agency Goals

- Achieve recognition as one of the top 5 regions in the U.S. for innovative technology company creation and development.

Goal Summary and Alignment

By assisting researchers and entrepreneurs in company formation and capital generation, they will be able to create new technology companies that will serve as the next generation of economic engine for Virginia. As a double-bottom-line fund designed to resolve Virginia's current shortage of seed-stage capital, CIT Growth Acceleration Program (GAP) Funds offer superior economic returns for entrepreneurs and co-investors, while providing significant economic development contribution to the Commonwealth.

Long Term Goal

Be a national leader in the preservation and enhancement of our economy.

Societal Indicator: Business Climate

- Achieve national recognition for the application of Virginia R&D assets to resolve Virginia and national societal challenges

Goal Summary and Alignment

The Commonwealth's investments in research and development must align with and help drive those sectors in which the state has current strengths, a likelihood of excelling in applied research and commercialization, and where growth is forecast. The Commonwealth Research and Technology (R&T) Strategic Roadmap is a comprehensive roadmap for the Commonwealth to identify research areas worthy of economic development and institutional focus. The process, powered by CIT, engages the state's technology community in setting investment priorities by identifying regions' ten-15 year technology priorities. Making investments following R&T Strategic Roadmap, best positions Virginia for economic benefits, including job and company creation and higher wages.

Long Term Goal

Be recognized as the best-managed state in the nation.

Societal Indicator: Government Operations

- Expand the use and application of broadband technologies in rural and under-served areas

Goal Summary and Alignment

CIT facilitates the establishment of broadband throughout the Commonwealth and accelerate the adoption of applications utilizing the infrastructure. This complementary approach will significantly extend the reach of public and private-sector telework programs, resulting in reduction in traffic and pollution. In addition, broadband will improve access to specialized medical care, educational opportunities, and employment options. These programs will positively impact the quality of life of Virginians.

Long Term Goal

Be a national leader in the preservation and enhancement of our economy.

Societal Indicator: Business Climate

- Improve the understanding and implementation of new technologies

Goal Summary and Alignment

Connect helps its clients solve mission-specific problems and challenges with technology solutions that deliver improvements in their operating objectives. CIT is uniquely positioned to help public and private organizations as a neutral party focused on improving the understanding and implementation of technology. CIT Connect does not engage in technology implementation contracts to assure clients that recommendations are neutral and do not position CIT for larger implementation contracts.

Long Term Goal

Be a national leader in the preservation and enhancement of our economy.

Societal Indicator: Business Climate

- Strengthen the culture of preparedness across state agencies, their employees and customers

Goal Summary and Alignment

This goal ensures compliance with federal and state regulations, policies and procedures for Commonwealth preparedness, as well as guidelines and best practices promulgated by the Assistant to the Governor for Commonwealth Preparedness, in collaboration with the Governor's Cabinet, the Commonwealth Preparedness Working Group, the Department of Planning and Budget and the Council on Virginia's Future. The goal supports achievement of the Commonwealth's statewide goal of protecting the public's safety and security, ensuring a fair and effective system of justice and providing a prepared response to emergencies and disasters of all kinds.

Long Term Goal

Be a national leader in the preservation and enhancement of our economy.

Societal Indicator: Business Climate

Objectives for this Agency Goal

Objective
Annual Agency Preparedness Assessment Score

Description
The objective is to improve the assessment score; thereby, improving readiness.

Objective Strategies
• Improve readiness

Measures
• Annual Agency Preparedness Assessment Score

Measure Class **Other Agency** Measure Type **Outcome** Preferred Trend **Increase** Frequency **Annually**

Data Source and Calculation

The data source is from the annual audit of preparedness. The calculation is the score which may go up or down.

Programs and Service Areas for Agency

- 53415: Technology Entrepreneurial Development Services
- 53416: Commonwealth Technology Policy Services
- 53419: Technology Industry Development Services
- 53420: Technology Industry Research and Developmental Services

Customers

Pre-Defined Customer Group	User Specified Customer Group	Customers Served Annually	Potential Annual Customers	Projected Trend in # of Customers
Consumer	Emerging technology companies/Entrepreneurs	1,759	1	Increase
Consumer	Commonwealth citizens desiring Broadband	963,496	963,496	Increase
Consumer	Commonwealth University Researchers/Entrepreneurs	275	1	Increase
Consumer	Technology Councils	10	10	Stable

Key Risk Factors

The funding provided for Center for Innovative Technology's (CIT) GAP funding via Commonwealth Research Commercialization Fund (CRCF) is strong although down 10% from prior year and is not our current key risk. The key risk for CIT is the continued erosion of base funding for CIT coupled with the addition of new program and administrative requirements. Below highlights the slide in CIT base funding since 2000 excluding CRCF purposed funds.

During FY2000, CIT received \$13,256

During FY2001, CIT received \$12,499

During FY2002, CIT received \$11,472

During FY2003, CIT received \$8,222

During FY2004, CIT received \$7,248

During FY2005, CIT received \$7,748

During FY2006, CIT received \$6,087

During FY2007, CIT received \$6,281

During FY2008, CIT received \$6,048

During FY2009, CIT received \$5,309

During FY2010, CIT received \$4,063

During FY2011, CIT received \$4,581

During FY2012, CIT received \$5,075

During FY2013, CIT received \$5,851

Products and Services

To achieve these objectives, CIT will operate five service lines. The priorities of these service lines will focus on the following activity:

1. Research and Development service line

- Create and annually update the Commonwealth Research and Technology Roadmap.
- Structure, administer, and audit \$4.8 million of awards for the Commonwealth Research Commercialization Fund.
- Execute and manage the federally funded Mid-Atlantic Regional Association Coastal Ocean Observing System for high frequency radar-based oceanic research.
- Execute and manage the federally funded Mine Safety project for wireless environmental monitoring system for use in underground mines.

2. Entrepreneur service line

- Accelerate seed-stage funding for Virginia's technology startup companies by operating the Growth Accelerator Program (GAP) Fund family of funds. Funding for Fiscal Year 2013 will allow the GAP Fund to place 18 investments and support second-round funding for existing high-growth portfolio companies.
- Accelerate seed and growth funding for Virginia's energy companies by operating the Commonwealth Energy Fund. Federal funding for this Fund will enable the creation or growth of four energy companies.
- Operation of CIT's Federal Funding Assistance Program which helps Virginia companies secure Small Business Innovation Research/Small Business Technology Transfer program (SBIR/STTR) funding and ensures that the Commonwealth preserves its top 5 national ranking for total SBIR/STTR awards.

3. Connect service line

- Create and manage the Virginia Regional Extension Center with the Virginia Health Quality Consortium to assist physicians with the implementation of electronic medical records and achievement of Meaningful Use. The Virginia target for implementation is 2,300 physicians.
- Develop and deliver the Virginia Department of Education Longitudinal Database System to assist with the design and approach for the establishment of a student database.
- Provide leadership in the development of new technology and strategies in mobile learning; health information technology; and state, local, and national education initiatives.

4. Broadband service line

- Accelerate the socio-economic growth of Virginia's rural and underserved areas through the application and use of broadband
- Operate the Office of Telework Promotion and Broadband Assistance to encourage the usage of telework alternatives for public and private sector employees.
- Execute programs to support the efforts of public and quasi-public bodies within the Commonwealth to enhance availability of and access to affordable broadband services throughout Virginia. These programs include:
 - Mapping and planning programs to refine the Commonwealth's broadband availability map and establish plans and an approach for adopting broadband applications and infrastructure.
 - Application development and deployment to stimulate usage and demand for

5. Commonwealth Support Programs service line

- Serve as a resource for regions to accelerate technology industry growth
- Position Virginia's businesses and organizations to boost entrepreneurship increase the availability of seed-stage funding for startups and support research that leads to commercialization of intellectual property.
- Develop strategies to promote public and private investments in new high-tech, high-growth industries

Trends

Rankings & Customer Trends

EMERGING TECHNOLOGY COMPANIES/ENTREPRENEURS

- The sluggish and uncertain economy continues to force business leaders and elected officials to search for new ways to grow the economy and create jobs. Innovation is the new buzzword, though Center for Innovative Technology (CIT), operating arm of the Innovation and Entrepreneurship Investment Authority, has been on the forefront of innovation in Virginia for over 25 years. CIT's mission is unique in the Commonwealth. Unlike other departments, agencies and authorities engaged in economic development activity in the Commonwealth, CIT was created in 1985 as a nonprofit organization to foster research and development, innovation, and accelerate the next generation of technology and technology companies. Our primary customers are emerging technology companies and entrepreneurs.

COMMONWEALTH CITIZENS DESIRING BROADBAND

- CIT delivers strategic guidance, broadband demand generation, service availability, and asset mapping services for the Commonwealth of Virginia. The Broadband services impact the economy of Virginia by delivering access to high-quality, affordable broadband services provides Virginia's citizens and businesses with enhanced social, educational, commercial, medical, and economic development opportunities. Besides empowering businesses and communities, ubiquitous broadband positions the Commonwealth to lead the nation in technology company development, and the deployment of high-technology services and applications. CIT programs will facilitate the establishment of broadband throughout the Commonwealth and accelerate the adoption of applications utilizing the infrastructure. This complementary approach will significantly extend the reach of public and private-sector telework programs, resulting in reduction in traffic and pollution. In addition, broadband will improve access to specialized medical care, educational opportunities, and employment options. These programs will positively impact the quality of life of Virginians.

COMMONWEALTH UNIVERSITY RESEARCHERS/ENTREPRENEURS AND TECHNOLOGY COUNCILS

- The Commonwealth Research Commercialization Fund (CRCF) advances science- and technology-based research, development, and commercialization to drive economic growth in Virginia and to encourage collaboration among its institutions of higher education and partnerships between these colleges and universities and business and industry. During the 2012 session of the General Assembly, \$4.8 million was appropriated to the Fund in support of the CRCF. The legislation stipulates that CRCF awards be linked directly to projects supporting the Commonwealth Research and Technology Strategic Roadmap and the key industry sectors identified therein. CIT administers the CRCF, per legislative mandate.
- CIT uses the technology councils to help develop Commonwealth Research and Technology Strategic Roadmap which is a comprehensive roadmap for the Commonwealth to identify research areas worthy of economic development and institutional focus. The process, powered by CIT, engages the state's technology community in setting investment priorities by identifying region's ten-15 year technology priorities.

Trend Name	Trend Area
Revenue	Increase
Focus on company creation	Increase
Grow the economy	Increase

Performance Highlights: Service Performance & Productivity Initiatives

Innovation and Entrepreneurship Investment Authority (Authority) is recognized nationally amongst its peers as a model technology-based economic development organization. This is exemplified by the number of programs initiated by Authority's non-profit operating company, the Center for Innovative Technology (CIT), and copied by other states. Nationally, Virginia is ranked 8th in the "2010 State New Economy Index" conducted by the Information Technology & Innovation Foundation and the Kauffman Foundation. Virginia's ranking of eight compares to Virginia's gross state product and population peer-state, Massachusetts who ranks number one. The Authority, through its operating company CIT, intends to resolve this ranking disparity and make Virginia the top destination for new technology company formation.

Management Discussion & Analysis

Future Direction, Expectations, and Priorities

Fiscal Year 2013 is the second consecutive year of higher funding for Center for Innovative Technology (CIT). The funding sources for seed-stage investment and research commercialization introduced in Fiscal Year 2012 continue to provide strong levels of funding for Fiscal Year 2013. Last year, we attributed higher funding to new emphasis on job creation and research commercialization, coupled with confidence in CIT's ability to structure programs that secure significant private sector investment. Essentially, we have earned the confidence necessary for appropriators and clients to continue to invest in CIT.

While enjoying our high levels of investment and commitment, we realize that now is the time to pause and examine our funding plans and programs for Fiscal Year 2015 and beyond. The past 12 months have introduced wide-scale new interest in entrepreneurship and company formation, as well as significant advancements in mobile computing, electronic health records and energy-centric technologies. Concurrent with advances in consumer and corporate computing systems is a rapidly expanding requirement to resolve cyber security violations. Our challenge is to examine, predict, propose, and implement the next generation of solutions that ensure that CIT is nationally recognized as the premier services provider focused on technology company creation and company growth.

Fiscal Year 2013 holds significant opportunity and equally significant growth challenges for CIT. The entire team is energized for the challenge; we are focused on achieving both our Fiscal Year 2013 goals and designing our future value proposition and programs.

53415: Technology Entrepreneurial Development Services

Description

The Innovation and Entrepreneurship Investment Authority through its non-profit operating company, Center for Innovative Technology, delivers the following service:

Accelerate funding for very early-stage technology firms

CIT's Capital Access Program recognizes the critical role that private equity investment plays in the initiation and growth of high-technology enterprises. CIT launched CIT Growth Acceleration Program (GAP) Funds in 2004 to provide critical seed-stage funding to the Commonwealth's high-potential, early-stage technology companies. Since that time, CIT GAP Funds has served as the centerpiece of CIT's "feeder" system to identify and groom technology companies for target investment by the regional angel and venture capital communities. As a part of this system, CIT undertakes structured outreach to key funding entities by participation in investment events such as Early Stage East, the Mid-Atlantic Venture Association (MAVA), Capital Connection, Mid-Atlantic Bio, and the Southeast Venture Conference. CIT also makes referrals of potential investment targets to individual investors and investment funds.

From an historical perspective, CIT has averaged leverage of private to GAP funding into portfolio companies at a rate of 3:1 at the time of seed investment close. Based on past portfolio performance, CIT anticipates growth of this leverage factor within a 24-48 month time period following seed round close as additional private investment is made in the portfolio company through subsequent angel financings and institutionally-led venture rounds.

In Fiscal Year 2013, CIT's investment pace dropped off slightly as compared to 2012 as CIT GAP Funds Virginia appropriation decreased from \$4 million in Fiscal Year 2012 to \$3.2 million in Fiscal Year 2013. In Fiscal Year 2013 CIT launched its GAP Cyber Security Fund in response to increased deal flow from Virginia's emerging information system security companies. Also in Fiscal Year 2013, CIT continued to place energy investments through residual funds left over from the \$2.6M contract acquired from Virginia's Department of Mines, Minerals, and Energy (DMME) in 2011. Funded by the American Recovery and Reinvestment Act (ARRA) through the State Energy Program (SEP), this contract established the Commonwealth Energy Fund and provided CIT with investment capital to finance production stage energy and cleantech companies. Finally, in Fiscal Year 2013, CIT GAP Funds launched the "GAP 50" Awards Program. Through this highly-visible statewide program, CIT acknowledged 50 emerging entrepreneurs from around the Commonwealth, cited by their peers as most likely to stimulate the next generation of high growth technology companies.

Mission Alignment and Authority

This service supports the development of Virginia's next generation of technology companies.

Customers for this Service Area

Anticipated Changes to Customers Base

Current Customer Base

Pre-Defined Customer Group	User Specified Customer Group	Customers Served Annually	Potential Annual Customers	Projected Trend in # of Customers
Business and Finance	High growth technology companies with intellectual property produces or services	565	1,000	Stable

Partners for this Service Area

Partner	Description
No partners currently entered in plan	

Products and Services

Factors Impacting the Products and/or Services

CIT has benchmarked both aggregate venture capital deployment and seed capital investment in Virginia, compared to other states of similar size and economic composition. In doing so, CIT compared 60-month trailing venture investments in Virginia (2011 GSP: \$429 billion), Maryland (2011 GSP: \$301 billion), and Massachusetts (2011 GSP: \$392 billion). Over the past five years (2008–2012), Virginia companies have attracted \$2.2 billion in venture capital, tracking closely with neighboring Maryland, which has attracted \$1.9 billion. Virginia, however, suffers significantly in comparison to Massachusetts, which attracted \$14.4 billion in venture capital during this same period. The difference becomes more acute with a comparison of the number of seed-stage investments in these states during the same five-year period; during this time frame, investors placed 23 seed-stage investments in Virginia, compared to 269 in Massachusetts and 64 in Maryland.

	2011 GSP[1]	Venture Funding	Seed-Stage Investments
Maryland	\$301 billion	\$1.9 billion	64
Massachusetts	\$392 billion	\$14.4 billion	269
Virginia	\$429 billion	\$2.2 billion	23

In order to be a leader in the development of the next generation of technology companies, Virginia must, at a minimum, perform on a par with Maryland. Optimally, Virginia should use Massachusetts as a model in the deployment of seed-stage capital investment.

[1] Source: US Bureau of Economic Analysis. Numbers are considered preliminary and were last updated by the Bureau on June 5, 2012

Anticipated Changes to the Products and/or Services

Having secured \$3.2 million in funding for Fiscal Year 2014, CIT GAP Funds will continue to invest in Virginia's high-potential science and technology companies at an aggressive pace. To ensure continued availability of capital for its portfolio companies, CIT GAP Funds will continue its outreach activities of the past several years to key regional and east coast venture and angel investment markets such as Boston, Research Triangle Park, and Philadelphia to aggressively expand its base of seed-stage syndication partners and downstream investment sources for portfolio companies. Through its Fiscal Year 2014 investment efforts and through additional referral work that CIT will conduct on behalf of other companies in which it may elect not to invest, CIT anticipates helping more than 30 early-stage technology companies gain critical exposure to the nation's early-stage investment community. CIT will contribute to the ability of Virginia's companies to raise \$8 million from placement by institutional and angel funds.

Also in Fiscal Year 2014, CIT GAP Funds will undertake additional business development and advocacy initiatives in coordination with CIT's Senior Vice President of Commonwealth Operations in an effort to sustain and grow its Virginia appropriation and to acquire new business consistent with CIT's mission, goals and objectives. Among new initiatives anticipated are: an examination of the viability of CIT's launch of a crowd-funding portal designed to enhance funding prospects for university-developed technologies and university-based start-ups; a legislative outreach program to ensure that key members of the Virginia General Assembly have a working knowledge of CIT's investment and entrepreneurial support programs; continued exploration of the formation of privately financed investment funds managed by CIT GAP Funds; and CIT GAP Funds community outreach program to ensure that key entrepreneurial constituencies in Richmond, Charlottesville, Hampton Roads, Roanoke-Blacksburg, and Southside Virginia benefit from CIT's role as knowledge leader on subject matter relative to entrepreneurship and early-stage investment.

Listing of Products and / or Services

Identify and support innovative technologies and technology companies

Accelerate funding for very early-stage technology firms

Financial Overview

Budget Component	2013 GF	2013 NGF	2014 GF	2014 NGF
Base	4,136,259	0	4,136,259	0
Changes to Base	0	0	2,177,175	0
Total	4,136,259	0	6,313,434	0

Objectives for this Service Area

Objectives for this Service Area

Objective

Accelerate funding for early-stage technology firms

Description

As a double-bottom-line fund designed to resolve Virginia's current shortage of seed-stage capital, CIT GAP Funds offer superior economic returns for entrepreneurs and co-investors, while providing significant economic development contribution to the Commonwealth.

The Entrepreneur service line facilitates the creation of new high-impact technology companies in Virginia. By providing programs and funding that stimulate private-sector investment, these public-private partnerships jumpstart the next generation of the Commonwealth's economy. For Fiscal Year 2014, CIT will stimulate \$8 million of private-sector investment in new technology companies.

Objective Strategies

- We will accelerate funding for early-stage technology firms

Alignment to Agency Goals

- Achieve recognition as one of the top 5 regions in the U.S. for innovative technology company creation and development.

Measures

- Rank of venture capital investments made in Virginia.

Measure Class **Agency Key** Measure Type **Outcome** Preferred Trend **Decrease** Frequency **Annually**

Data Source and Calculation

Reporting on an Annual basis in the Virginia Performs database based upon PricewaterhouseCooper's Venture Economics publication.

- Investment conversion rate

Measure Class **Productivity** Preferred Trend **Stable** Frequency **Annually**

Data Source and Calculation

This productivity measure is a single factor measure that evaluates the productivity of the Center for Innovative Technology investment analysis and placement process. The measure ratio is obtained by dividing the number of investment plans submitted to the Growth Acceleration Program (GAP) program by the number of investments made for the fund.

- Private sector investment leverage ratio

Measure Class Preferred Trend Frequency

Data Source and Calculation

This productivity measure is a single factor measure that evaluates the productivity of Center for Innovative Technology (CIT) investments in terms of thier ability to attract matching private sector investments. This measurement is obtained by dividing the total investment dollars secured by CIT Growth Acceleration Program (GAP) fund companies by the CIT investment in the GAP fund.

53416: Commonwealth Technology Policy Services

Description

This service helps the technology community update the Commonwealth Research & Technology Roadmap (Roadmap), administers the Commonwealth Research Commercialization Fund (CRCF) Fund, and establish the Innovation & Entrepreneurship Measurement System (IEMS).

Setting strategic direction helps align the Commonwealth's strengths with short- and longer term goals, drives smart investment decisions and innovation, and best positions Virginia for economic benefits, including job and company creation and higher wages.

The Center for Innovative Technology (CIT) is at the nexus of the Research and Technology (R&T) Strategic Roadmap and three new and related initiatives: the Innovation & Entrepreneurship Measurement System (IEMS), *Virginia Performs'* planned Innovation & Entrepreneurship (I&E) category, and the Virginia Chamber's *Blueprint Virginia*. The collective attention on these initiatives and the widely recognized importance of strategic planning and metrics provides CIT with an opportunity to:

- define what I&E in Virginia should be
- develop the system to measure and track I&E
- analyze and interpret trends, and
- develop strategies and recommend programs designed to build this segment of our economy.

CIT strives to be the Commonwealth's leading information resource as well as an advocate for I&E. Through demonstrated value, CIT will strive for the Roadmap and IEMS to become the Commonwealth's de facto strategic planning and metrics tools addressing technology-related research and commercialization, innovation, and entrepreneurship.

The Roadmap is a strategic planning tool for the Commonwealth to identify research areas worthy of economic development and institutional focus. The process, powered by CIT, engages the state's technology community in setting investment priorities by identifying the ten technology council regions' 10-15 year technology priorities. Technology executives and officials, including those from the private sector, academia, and state government, identify strategic priorities, critical assets, technologies and skills needed to meet regional technology goals, and approaches to close gaps. CIT facilitates the dialogue and compiles information at a statewide level in order to identify investment priorities, including those technology sectors eligible for Commonwealth Research Commercialization Fund (CRCF) investment. CIT couples input from technology and economic development executives with empirical data to identify technologies and markets with strength in Virginia and that show the greatest promise.

Furthermore, CRCF investments must align with technology sectors identified in the Roadmap; as a result, the Roadmap and CRCF drive those sectors in which the state has current strengths, a likelihood of excelling in applied research and commercialization, and where significant growth is forecast. The Center for Innovative Technology's R&D service line will manage the ongoing development of the Roadmap. The Roadmap is designed to be dynamic; legislation passed in 2011 (HB2324) requires an update every three years. Given the pace of change, CIT R&D evaluates the environment prior to each CRCF solicitation and will perform a refresh in Fiscal Year 2014. CIT will undertake a more extensive review every three years.

Mission Alignment and Authority

It helps Virginia accelerate the next generation of technology

Customers for this Service Area

Anticipated Changes to Customers Base

Current Customer Base

Pre-Defined Customer Group	User Specified Customer Group	Customers Served Annually	Potential Annual Customers	Projected Trend in # of Customers
Non-Profit Agency (Boards/Foundations),	Regional Technology Associations	10	10	Stable

Partners for this Service Area

Partner	Description
Technology community	Through regional technology associations, CIT engages the local technology community in identifying strategic industry priorities, critical drivers, gaps to achieving goals, and metrics to measure and manage the process of growing strategic technology industry clusters.

Products and Services

Factors Impacting the Products and/or Services

The Commonwealth's investments in research and development must align with and help drive those sectors in which the state has current strengths, a likelihood of excelling in applied research and commercialization, and where growth is forecast. This best positions Virginia for economic benefits, including job and company creation and higher wages.

Anticipated Changes to the Products and/or Services

In Fiscal Year 2014, CIT will perform both shorter and longer term tasks. CIT will recommend technology sectors eligible for Fiscal Year 2014 CRCF awards after assessing the refresh of the **Research and Technology Strategic Roadmap (Roadmap)**. Additionally, CIT will examine in greater depth the technology areas that meet future investment in preparation for the fall 2014 Roadmap refresh. The Roadmap will continue to be a grassroots initiative, with development facilitated through such avenues as regional meetings hosted by the *Blueprint* and those organized by CIT, and ongoing dialogue with Virginia's research assets, economic development officials, and technology executives. Additionally, the Roadmap will include an empirical component, with analysis of specific leading and lagging indicators. CIT will work with Marketing and Communications to enhance the Roadmap's visibility and bolster community utilization through a webpage on CIT.org and outreach via social media.

As a new process may be instituted, CIT Research & Development (R&D) programs will work with the Department of Planning and Budget (DPB) to monitor how capital outlay decisions are made for Virginia's institutions of higher education. CIT will work with the Six-Year Capital Outlay Plan Advisory Committee, DPB, and the State Council of Higher Education for Virginia (SCHEV) as appropriate.

CIT's R&D service line will establish the **Innovation & Entrepreneurship Measurement System (EMS)**, including identification of initial metrics and a dashboard that depicts metrics by category. The dashboard and underlying metrics will be designed by CIT; metrics are envisioned as a blend of indicators – leading and lagging, and internal and external to CIT – that "roll up" into innovation and entrepreneurship-related categories. CIT R&D envisions annual updates to the IEMS. Chmura Economics & Analytics will support CIT and perform under contract data collection and analysis. CIT R&D will work closely with Marketing and Communications to develop and maintain the IEMS webpage on CIT.org and to enhance its visibility via social media. Additionally, R&D will perform outreach through speaking engagements and other avenues. Metrics tracked by CIT may evolve as we identify new ways to measure innovation and entrepreneurship, whether these metrics reflect data gathered by the federal government or other bodies, or they reflect CIT's own programs that support entrepreneurs and technology development and commercialization.

The IEMS has potential to become the Innovation and Entrepreneurship section of *Virginia Performs*, with the Council on Virginia's Future linking its scorecard to the IEMS.

CIT will develop plans for the **Commonwealth Research Fund (CRCF)** Fiscal Year 2014 solicitation(s), including the number of rounds and eligibility criteria, in late Fiscal Year 2013 and in Fiscal Year 2014. R&D's initial concept is to issue a targeted solicitation followed by a broader round in the 3rd quarter. Programs will be reviewed and recommended for Fiscal Year 2014 based on opportunities to advance technology commercialization and economic growth and will reflect legislation, funding availability, demand expressed in Fiscal Year 2012 and Fiscal Year 2013, and complementary programs such as Entrepreneur's Federal Funding Assistance Program (FFAP) and Growth Acceleration Program (GAP), as their prospects and clients can overlap with firms eligible for CRCF awards.

Additional Fiscal Year 2014 activities include managing Fiscal Year 2012 and Fiscal Year 2013 awards whose performance continues into Fiscal Year 2014, and monitoring commercialization progress and successes for those award recipients whose period of performance has concluded. For awardees with disbursements planned in Fiscal Year 2014, CIT will evaluate performance against proposed goals and metrics, as well as adherence to award terms and conditions. Based on that performance, CIT will arrange for distribution of funds and/or will coordinate with the award recipient regarding performance requirements.

Listing of Products and / or Services

The **Research and Technology Strategic Roadmap** is a strategic planning tool for the Commonwealth to identify research areas worthy of economic development and institutional focus. The process, powered by CIT, engages the state's technology community in setting investment priorities by identifying the ten technology council regions' 10-15 year technology priorities. Technology executives and officials, including those from the private sector, academia, and state government, identify strategic priorities, critical assets, technologies and skills needed to meet regional technology goals, and approaches to close gaps. CIT facilitates the dialogue and compiles information at a statewide level in order to identify investment priorities, including those technology sectors eligible for Commonwealth Research Commercialization Fund (CRCF) investment. CIT couples input from technology and economic development executives with empirical data to identify technologies and markets with strength in Virginia and that show the greatest promise.

The **Commonwealth Research Commercialization Fund (CRCF)** advances science- and technology-based research, development, and commercialization to drive economic growth in Virginia and to encourage collaboration among its institutions of higher education and partnerships between these colleges and universities and business and industry. During the 2012 session of the General Assembly, \$4.8 million was appropriated to the Fund in support of its FY2014 programs. Legislation stipulates that CRCF awards be linked directly to projects supporting the Commonwealth Research and Technology (R&T) Strategic Roadmap and the key industry sectors identified therein.

A newly established metrics tool, the **Innovation & Entrepreneurship Measurement System (IEMS)**, will provide CIT, other Commonwealth leadership, and the public with a clear view of Virginia's performance and trends in innovation and entrepreneurship measures. IEMS performance measures will be presented in dashboard format and will heighten the understanding of Virginia's strengths, priorities, and gaps as gleaned through the primarily grassroots-based Research and Technology (R&T) Strategic Roadmap. Tracking Virginia's performance will also help CIT and the Commonwealth identify areas that require policy changes and other initiatives to improve the innovation ecosystem and outcomes.

Financial Overview

Budget Component	2013 GF	2013 NGF	2014 GF	2014 NGF
Base	44,392	0	44,392	0
Changes to Base	0	0	0	0
Total	44,392	0	44,392	0

Objectives for this Service Area

Objectives for this Service Area

Objective

Manage the Commonwealth Research & Technology Roadmap (Roadmap) and the Commonwealth Research Commercialization Fund (CRCF), and establish the Innovation & Entrepreneurship Measurement System (IEMS)

Description

The **Roadmap** objective focuses on identifying technology sectors eligible for award in the Fiscal Year 2014 CRCF solicitation(s) and preparing the Fiscal Year 2015 Roadmap update to be delivered in fall 2014. Program impact is determined by Commonwealth and investments and policies in research and technology in academia, as well as the private sector.

Future impact will be based on investments and other decisions that elected and other officials make as a result of information garnered through Roadmap, as well as

economic outcomes. It is expected that the Roadmap will permit the Commonwealth to conduct a more informed review of research and development initiatives, appropriate investments and regulatory and other policies, and economic development initiatives and outcomes.

The **IEMS** objective focuses on establishing initial metrics and publishing a dashboard in Fiscal Year 2014. Program impact is determined by FY2014 adoption of this dashboard by the Council on Virginia's Future as the Council's I&E scorecard, and by development and implementation, as needed, of policies and programs that reflect trends uncovered by the IEMS.

Future impact will be based on policies and other decisions that elected and other officials make as a result of information garnered through the IEMS, as well as economic outcomes. It is expected that CIT and other state leaders will develop and recommend policies and programs as a result of what is learned through IEMS performance measures and trends.

CRCF award recipients will report contributions to the state's R&D through federal or private matching funds, intellectual property creation and licensing, and other commercialization targets and outcomes. CIT will compile and summarize these contributions and alignments with goals of the Roadmap in the annual report to the Governor's Office and the General Assembly.

Future impact will be based on investments and other decisions that elected and other officials make as a result of results achieved through CRCF investments. It is expected that targeted investments and increased collaboration will lead to substantial economic development outcomes, including licensing revenue, sales, company creation and attraction, and job creation.

Objective Strategies

- Propel commercialization of technology

Alignment to Agency Goals

- Achieve national recognition for the application of Virginia R&D assets to resolve Virginia and national societal challenges

53419: Technology Industry Development Services

Description

Reductions in expenditures for government and private sector research create an opportunity for early-stage science and technology companies to fill the innovation gap by delivering solutions that meet the mission objectives of large-scale technology consumers. These larger consumers that identify and assimilate early-stage niche technologies and companies gain a competitive advantage because they can tailor technology solutions to their requirements.

Connect is a consulting service for large-scale technology consumers that offers:

- Requirements definition for client innovation objectives
- Identification of technology solutions that map to objectives
- Analysis, vetting, and presentation of relevant technology solutions
- Technology assimilation planning and support services
- Identification of potential strategic partners for clients
- Development of innovation roadmaps for clients
- Education and awareness of the potential impact of emerging technology for clients

For large technology consumers, the Connect service provides identification of and access to innovation matching their requirements, in markets they find difficult or inefficient to explore. Smaller innovative technology companies are attracted to Connect's outreach program because it gives them a new channel for market development in an untapped client base.

Virginia benefits from the Connect service line because it attracts new companies and high-technology jobs to the state. In addition to economic development value, the Connect program gives Virginia the ability to translate technology requirements from the national agenda to solutions for the Commonwealth.

Mission Alignment and Authority

This service supports the development of Virginia's next generation of technology and technology companies.

Customers for this Service Area

Anticipated Changes to Customers Base

Current Customer Base

Pre-Defined Customer Group	User Specified Customer Group	Customers Served Annually	Potential Annual Customers	Projected Trend in # of Customers
Organization	State local school districts and State agencies	7	1,600	Stable

Partners for this Service Area

Partner	Description
No partners currently entered in plan	

Products and Services

Factors Impacting the Products and/or Services

For Fiscal Year 2014, the Connect service line will focus on:

- Maintain and grow existing strategic client relationships
- Examine, propose, and pursue additional growth from new clients
- Recruit and bring onboard new team members to support new business and drive success.

Anticipated Changes to the Products and/or Services

In Fiscal Year 2014, Connect will continue to build on the client relationships developed in Fiscal Year 2013, aggressively execute business and proposal development efforts, and continue to build and refine the consulting service model, including an increased focus on the social media, big data, mobile learning, education, and Health Information Technology sectors.

Connect has proven the market potential for its service; the challenge in Fiscal Year 2014 will be to maintain the momentum and continue the pace of growth. This will be addressed in four important ways:

1. **Lead Generation** – Connect will institute a more rigorous process to improve lead-generation, ensuring it is more productive and repeatable.
2. **Early Stage Influencing/Deal Shaping** – Connect will leverage its role in the education and mobile learning marketplaces to create a new set of opportunities focused in these areas.
3. **Resource Optimization** – In order to keep pace with the aggressive demands of client relationship management, proposal development, business operations, and client delivery, Connect will continue to leverage resources from within CIT and with external partners.
4. **Deal Profiling and Selection** – Connect will continue to screen and identify opportunities and select only the high-probability opportunities for full proposal development
5. **Grow Current Client Engagements** - the Connect team has demonstrated its ability to grow client relationships, deliver services based on client value propositions, create effective proposals, and deliver on-time and on-budget. Connect will continue to nurture and develop its current relationships with Virginia Department of Education (VDOE), Virginia Health Quality Consortium (VHQC), and the Technical Support Working Group (TSWG).

Listing of Products and / or Services

Resolve mission-specific problems and challenges with technology solution

At the conclusion of Fiscal Year 2013, the Connect service line will enter the new fiscal year with the following:

- An ongoing relationship focused on developing a proof-of-concept with the DOD
- An ongoing relationship with the Virginia Health Quality Center (VHQC) as we set up and operate the Virginia Regional Extension Center, as part of the joint \$13.5 million federal award
- An ongoing relationship with the Virginia Department of Education (VDOE) and a number of active projects, as part of the \$18.5 million federal award for the development and operation of a statewide longitudinal database system
- An ongoing initiative with VDOE, Apps4VA, with a number of different challenge based projects which could be expanded both nationally and across Virginia
- A sales pipeline which includes several high-probability high value opportunities to work with the Department of Homeland Security (DHS)
- A proven model for selling and delivering high-value consulting and research services

Financial Overview

Budget Component	2013 GF	2013 NGF	2014 GF	2014 NGF
Base	334,258	0	334,258	0
Changes to Base	0	0	480,000	0
Total	334,258	0	814,258	0

Objectives for this Service Area

Objectives for this Service Area

Objective

Improve organization objectives by identifying innovative solutions which provides efficiencies to customers

Description

For Fiscal Year 2014, the Connect service line is challenged with delivering on the existing services backlog and in converting \$1.5 million of additional sales.

As a by-product of delivering solutions to large-scale technology consumers, the Connect program accelerates the growth of early-stage technology companies by introducing their innovative technology to markets they have not explored. For early-stage companies residing in the Commonwealth, increased sales will contribute to Virginia's gross state product and create new jobs. For companies outside the Commonwealth, new sales with large clients, like the federal government, will give them an opportunity to expand into Virginia, creating new job opportunities for Virginians.

Objective Strategies

- Accelerate the assimilation of new technology by large-scale public and private-sector technology consumers

Alignment to Agency Goals

- Improve the understanding and implementation of new technologies

53420: Technology Industry Research and Developmental Services

Description

Expand the use and application of broadband technologies in rural and underserved areas and provide support of the Office of Telework Promotion and Broadband Assistance

Mission Alignment and Authority

This service area fosters state-wide deployment of broadband technology.

Customers for this Service Area

Anticipated Changes to Customers Base

Current Customer Base

Pre-Defined Customer Group	User Specified Customer Group	Customers Served Annually	Potential Annual Customers	Projected Trend in # of Customers
Local or Regional Government Authorities	Virginia Cities and County governments	135	135	Stable

Partners for this Service Area

Partner	Description
<i>No partners currently entered in plan</i>	

Products and Services

Factors Impacting the Products and/or Services

Access to affordable broadband services remains critical to the worldwide economic future, as nations, states, and communities are measured by the amount and cost of broadband services that are available. On March 16, 2010 the Federal Communications Commission (FCC) unveiled the nation's first "National Broadband Plan" that provides a foundation upon which the case for applications advances in seven key sectors: economic opportunity, education, health care, energy/environment, government performance, civic engagement, and public safety can be made.

Anticipated Changes to the Products and/or Services

CIT's Broadband program for FY2014 will build upon the work and findings developed by the Broadband Advisory Council and the National Broadband Plan to develop programs and collaborations that will ensure that communities throughout Virginia have the opportunity to actively participate in the information economy. CIT staff will work with communities, federal and state legislators, and industry leaders to develop and institute holistic broadband policies and strategies that emphasize both infrastructure acquisition and application development.

Listing of Products and / or Services

Acknowledging the importance of broadband and telework to Virginia's economy, the Commonwealth continues to maintain the Office of Telework Promotion and Broadband Assistance (OTPBA), created in 2006. The Office consists of a director appointed by the Secretary of Technology and additional professionals as the Secretary determines. Since its inception, the Director has been, and continues to be, provided by CIT.

The Director of the OTPBA has the following duties:

- Promote and encourage use of telework alternatives for public and private-sector employees
- Support the efforts of both public and private entities to facilitate access to competitively priced broadband services, infrastructure, and applications
- Specifically work toward identifying and filling service gaps in underserved areas of the Commonwealth
- Advocate for services such as telework, telemedicine, smart grid, and first responder interoperability
- Serve as a broadband information and applications clearinghouse for the Commonwealth
- Advise the Secretary of Technology on broadband adoption, deployment, and application issues

Financial Overview

Budget Component	2013 GF	2013 NGF	2014 GF	2014 NGF
Base	458,841	0	458,841	0
Changes to Base	0	0	651,575	0
Total	458,841	0	1,110,416	0

Objectives for this Service Area

Objectives for this Service Area

Objective

Serve as the Commonwealth's Office of Telework Promotion and Broadband Assistance (OTPBA)

Description

Delivering access to high-quality, affordable broadband services provides Virginia's citizens and businesses with enhanced social, educational, commercial, medical, and economic development opportunities. Besides empowering businesses and communities, ubiquitous broadband positions the Commonwealth to lead the nation in technology company development, and the deployment of high-technology services and applications.

Objective Strategies

- CIT programs will facilitate the establishment of broadband throughout the Commonwealth and accelerate the adoption of applications utilizing the infrastructure. This complementary approach will significantly extend the reach of public- and private-sector telework programs, resulting in reduction in traffic and pollution. In addition, broadband will improve access to specialized medical care, educational opportunities, and employment options.

Alignment to Agency Goals

- Expand the use and application of broadband technologies in rural and under-served areas

Measures

- Percentage of achievement of the director's duties as described in the Governor's Executive Order 35 (2006)

Measure Class Preferred Trend Frequency

Data Source and Calculation

Broadband and telework annual reports (as required by legislation)