



Center for Innovative Technology

VEDP Briefing

November 6, 2012

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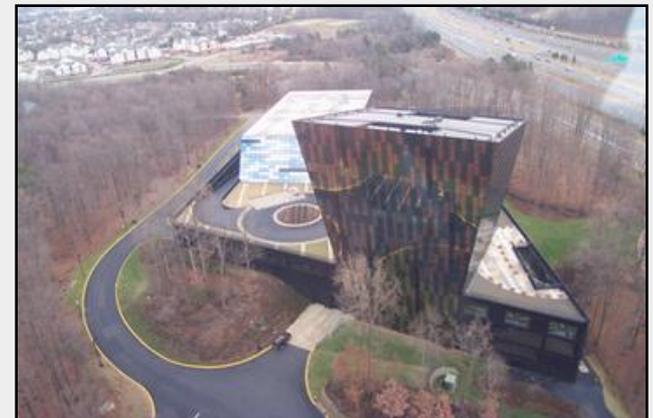
Background

- Established in 1984 as the Innovative Technology Authority (ITA)
- Seven chartered objectives:
 - Attract high technology business
 - Apply technology for productivity
 - Support new product development
 - Expand university R&D
 - Expand knowledge of R&D
 - Attract R&D
 - Facilitate marketing R&D



Background

- 2009 General Assembly merges the ITA and the VRTAC into the IEIA
- IEIA continues the work of the Innovative Technology Authority with the added duty to create a strategic R&D roadmap for the Commonwealth
- 13 Member Board appointed by Governor, Senate & House
- The IEIA is responsible for accelerating all phases of technology company creation from research and development through commercialization, capital formation and successful product assimilation
- IEIA has no staff



Background

- CIT is the non-profit corporation that conducts the business of the IEIA.
- To support IEIA's mission, CIT creates new technology companies through capital formation, market development and revenue generation services.
- CIT's lifecycle focus uniquely positions Virginia to maximize its research, entrepreneurship and financial resources to create the next generation of employment opportunities for citizens.



Service Lines and 2013 Objectives



- Deliver technology solutions via R&D programs
- Maintain a statewide research and tech roadmap
- Administer the Commonwealth Research Commercialization Fund



- Accelerate federal funding for small businesses
- Operate the GAP Fund



- Operate technology sourcing and management consulting practice



- Operate Office of Telework and Broadband Promotion
- Provide demand generation and infrastructure services



- Support the statewide research and tech roadmap
- Assess regional growth inhibitors and build solutions

CIT GAP Funds – Overview



- **CIT GAP Fund**

- Seed-stage leverage fund – designed to stimulate private investment
- Three operating funds
 - GAP Tech Fund
 - BioLife Fund
 - Innovation Fund
- Investment decisions made by Investment Advisory Board
- *Average projected 5 year job growth is 10X from point of investment*

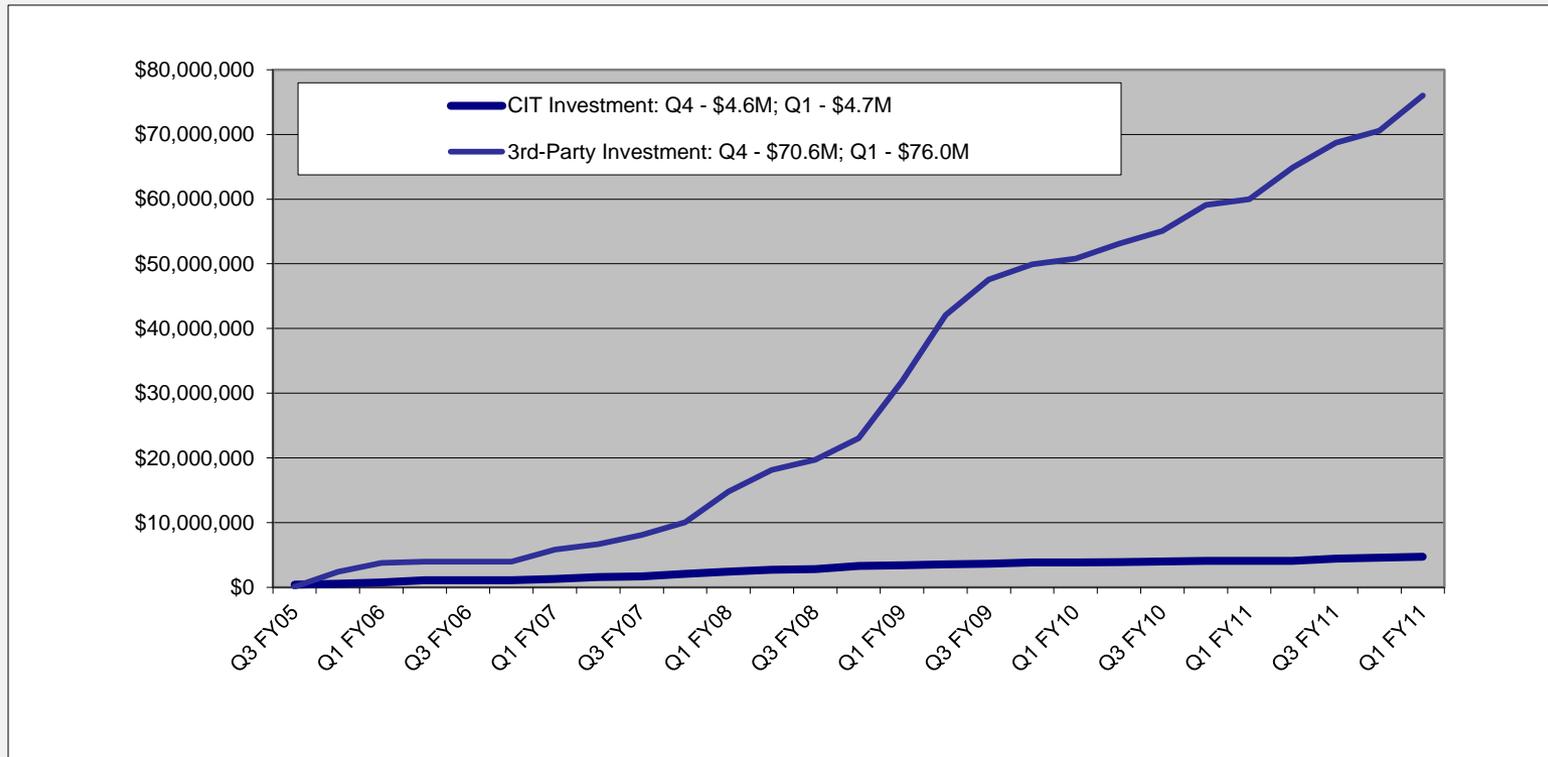
- **FY2011 summary**

- 565 applications
- 44 review meetings held
- 15 presented to the Investment Advisory Board
- 6 new company investments placed

- **FY2012 projections**

- 131 applications to date – projecting 500+
- 21 new company investments
- 18 validation investments
- 6 energy fund investments

Private Sector Leverage



16:1 Private sector leverage - \$16 for every \$1 CIT invests

§ 2.2-2221.2. Commonwealth Research and Technology Strategic Roadmap

Develop the Roadmap...to use to identify research areas worthy of institutional focus and Commonwealth investment in order to promote commercialization and economic development efforts in the Commonwealth

§ 2.2-2233.1. Commonwealth Research Commercialization Fund (CRCF)

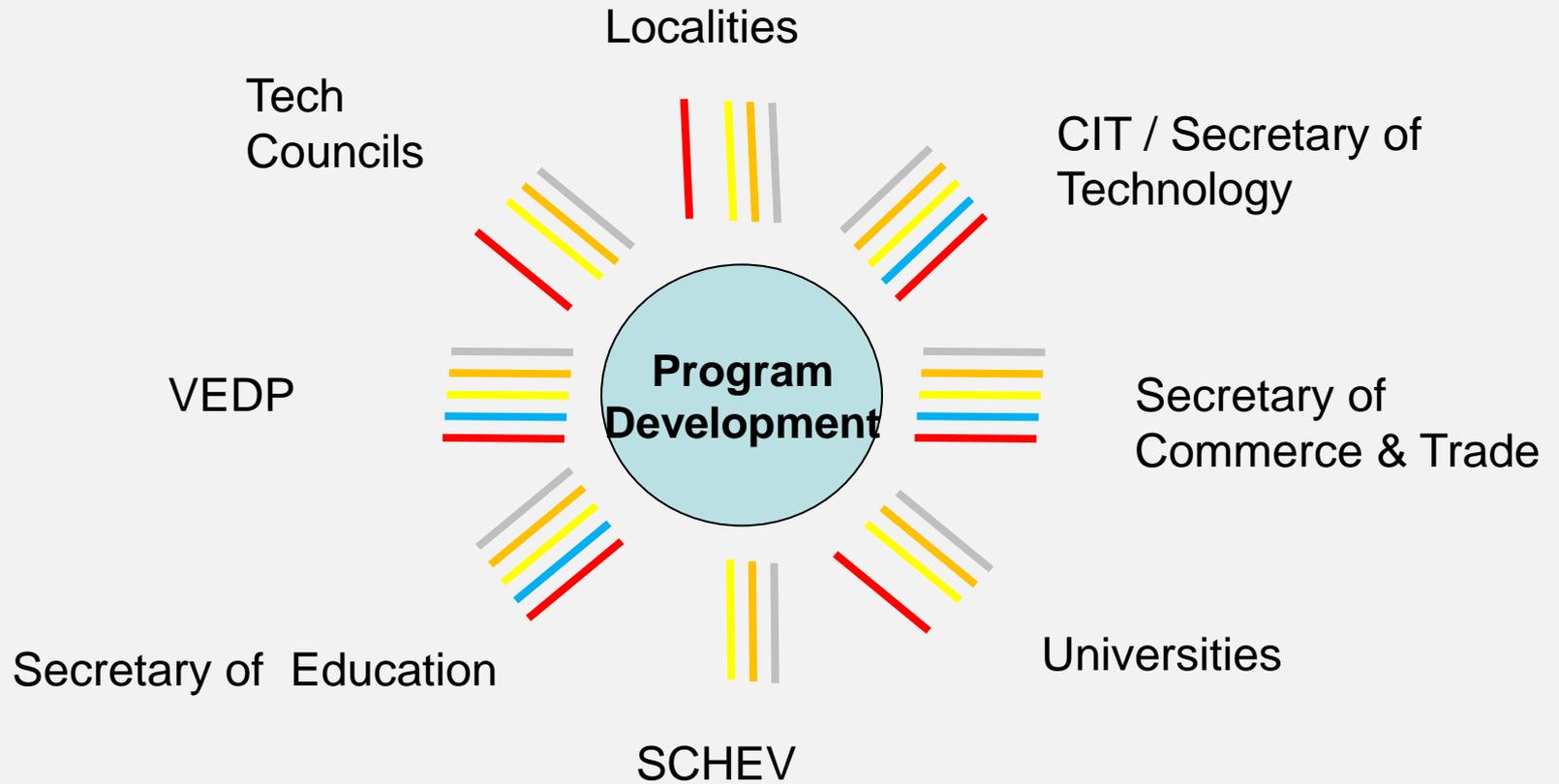
Awards from the Fund shall only be made to applications that further the goals set forth in the Commonwealth Research and Technology Strategic Roadmap

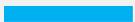
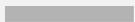
R&T Roadmap



- Identify key industry sectors for potential investment
- Identify basic and applied research opportunities with commercial promise in these sectors
- Encourage commercialization and economic development in these sectors
- Help ensure that investments in research are made prudently in focused areas with significant potential for commercialization and economic growth

Roadmap Development



- | | | | | | |
|----------|---|----------------|---|-----|---|
| RTIAC |  | CRCF Structure |  | RFI |  |
| Schedule |  | Roadmap |  | | |

Approach

- Industry perspective – Innovation Index / bottom-up process identifying key industries
- Economic development priorities – VEDP
- Statistical foundation – Chmura Economics & Analytics

Findings

- High level – economic indicators support several sectors identified in Index, including Aerospace, Energy (including green tech), Environment, IT (including cyber security and modeling & simulation) Life Sciences, Transportation

Approach

- Survey Virginia public and private research universities on strategic research priorities, commercialization
- Identify common themes among academia and with industry and other research organizations
- Coordinate with synergistic initiatives, including Six-Year Plan

Findings

- Common themes: Aerospace, Communications, Energy / Environment, IT (including bioinformatics, cyber security and modeling & simulation), Life Sciences, Nanotechnology, and Transportation

Other R&D Assets



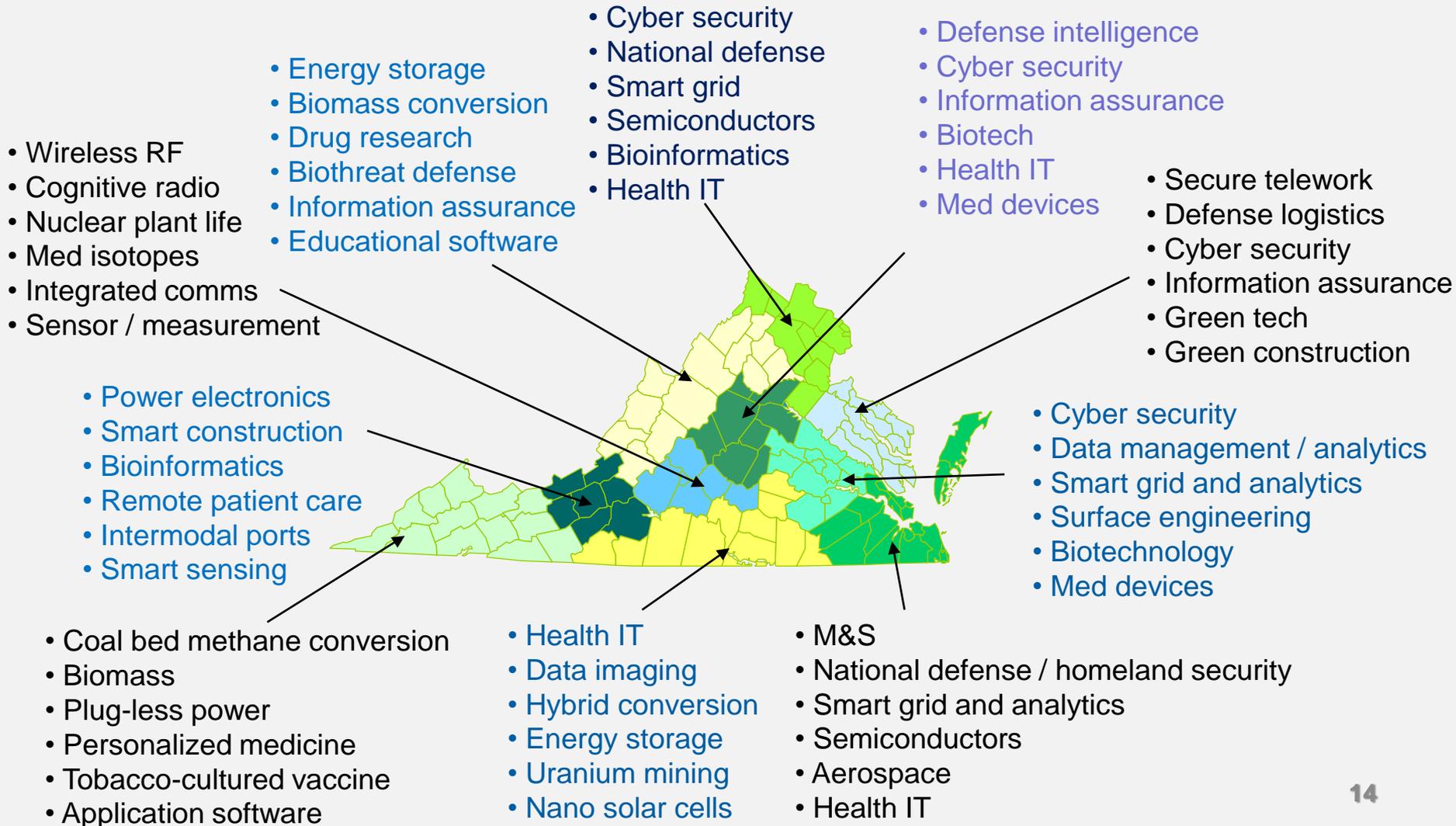
Approach

- Identify strengths and priorities of key research institutes
- Selected and interviewed six research institutes
 - JLab, NASA LaRC, NSCWDD
 - CCAM, NIA, SRI CADRE

Findings

- R&D supports key sectors, including: Advanced Manufacturing, Aerospace, Energy, Defense / National Security, IT, Life Sciences
- Basic research through transitioning technology to field
- Eager for partnering opportunities

Findings



Roadmap / CRCF Intersection



- Industry Opportunities / Eligible Sectors
 - Advanced Manufacturing
 - Aerospace
 - Communications
 - Cyber Security
 - Energy
 - Environment
 - Information Technology
 - Life Sciences
 - Modeling and Simulation
 - Nuclear Physics
 - Transportation
- www.cit.org/programs/cit-rd/roadmap

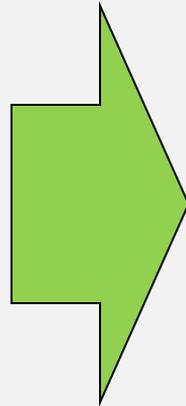
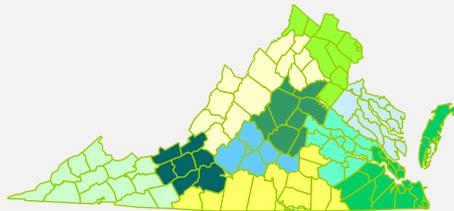
FY2012 CRCF awards

- Reinforced Roadmap priorities
- 181 applications addressed all target industry sectors
- 47 investments in 9 target sectors

Ongoing Commitment

- FY2013 / 2014 CRCF appropriations
- FY2013 Roadmap refresh underway
 - Validate priorities
 - Identify FY2013 CRCF opportunities
 - Engage with leadership
 - General Assembly, Administration, tech community

Roadmap Application



Value Add	VEDP	CRCF	Tobacco Comm.	Universities	Industry	Localities	CIT
Strategic planning	●	●	●	●	●	●	●
Investment vetting	●	●	●	●		●	●
Company recruiting	●		●			●	●
Research recruiting	●	●	●	●	●	●	●
Scholar recruiting		●	●	●			●
Investor recruiting	●		●	●		●	●
NewCo formation		●	●	●	●	●	●
Fed program dev	●	●	●	●	●		●

Broadband Programs

- Operate Commonwealth's office of Telework Promotion and Broadband Assistance
- Provide demand generation and infrastructure development services

Program areas

Broadband Mapping

- Availability data collection
- Availability mapping
- Refresh cycle is 6 months

Technical Assistance

- Community workshops
- Digital literacy programs

Capacity Building

- "Connectedness" data collection
- Sources for assessment – hospitals, doctors, schools, businesses

Special Projects

- Stakeholder coordination to deploy
 - ✓ Environmental sensors
 - ✓ Smart grid

Commonwealth Support Programs

2012 Operating Plan

- Re-establish regional partnerships and collaborative efforts
- Engage CIT in regional initiatives

Opportunities

- ✓ technology workforce
- ✓ mentoring and networking
- ✓ capital access
- ✓ entrepreneurial infrastructure
- ✓ market access

Areas of Engagement

- ✓ technology councils
- ✓ startup weekend programs
- ✓ Innovate Hampton Roads
- ✓ SWVA entrepreneurial blueprint
- ✓ Startup America

2013 Operating Plan

- Reinforce CIT as a resource not owner of regional programs – expand partners
- Launch expanded Virginia Technology Alliance
- Coordinate common set of innovation public policy priorities
- Support Year of the Entrepreneur and regional startup initiatives

