



Advancing Economic Development Through Innovation in Information Technology

Center of Innovation for Information Technology



Aerospace



Agribusiness



Energy
Technology



Information
Technology



Logistics



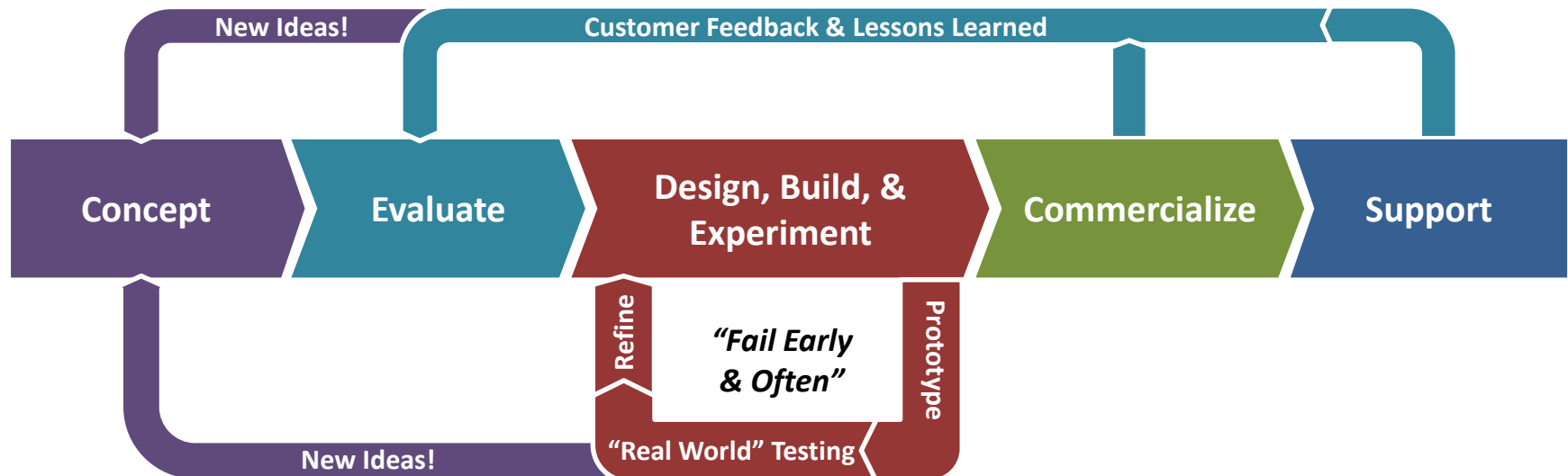
Manufacturing



What Is Innovation?

INNOVATION: The process of translating an idea or invention into a good or service that creates value or for which customers will pay.

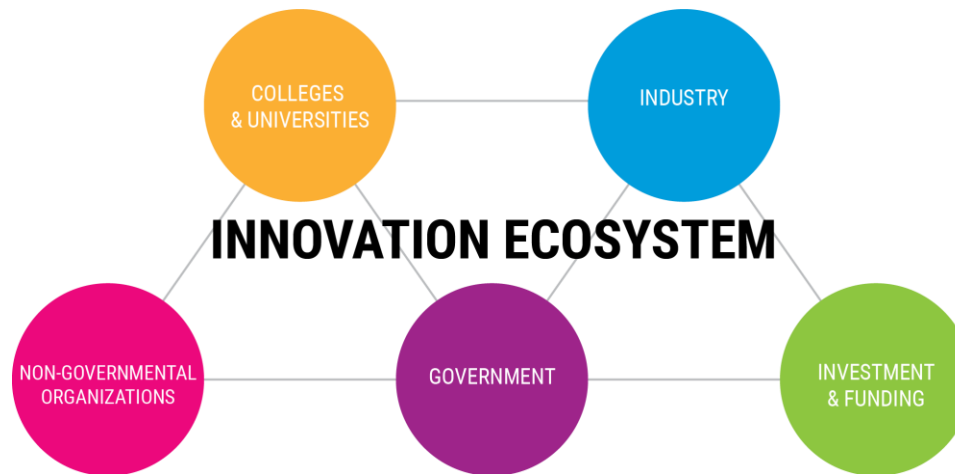
- **Evolutionary Innovations** (continuous or dynamic evolutionary innovation) that are brought about by many incremental advances in technology or processes.
- **Revolutionary Innovations** (also called discontinuous innovations) which are often disruptive and new.



Georgia's Innovation Ecosystem

'Innovation Ecosystem' is the large and diverse array of participants and resources that contribute to and are necessary for ongoing innovation in a modern economy.

"Innovation distinguishes between a leader and a follower."
- Steve Jobs



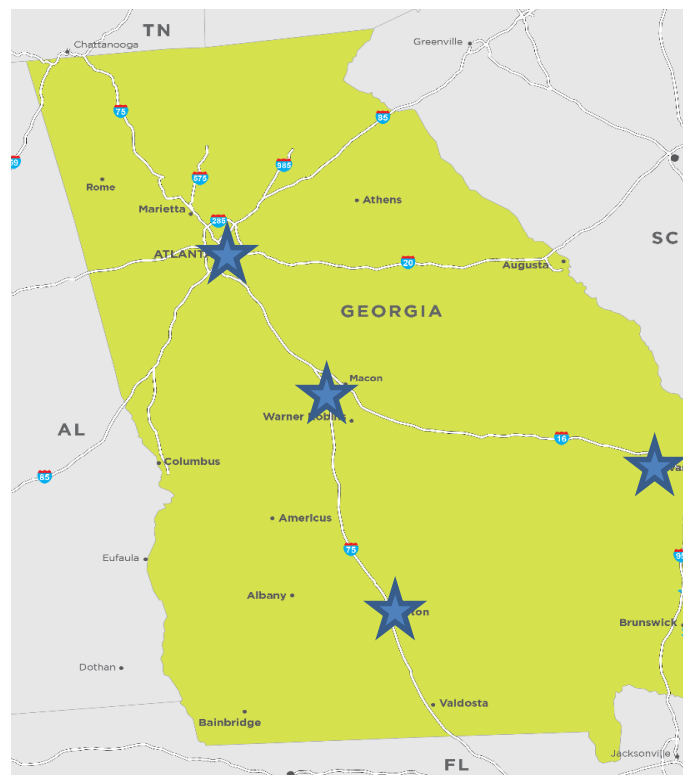
- Incubators & Accelerators
- Workspaces
- Maker Spaces
- Business Support Program
- Crowd-based funding
- Government and Institutional funding
- Angel Investment and Venture Capital
- University Programs
- Economic Development Organization
- Corporate Innovation Center
- Groups & Associations
- Events
- Incentives for Business
- Design and Coding Schools
- Media



Georgia's Centers of Innovation

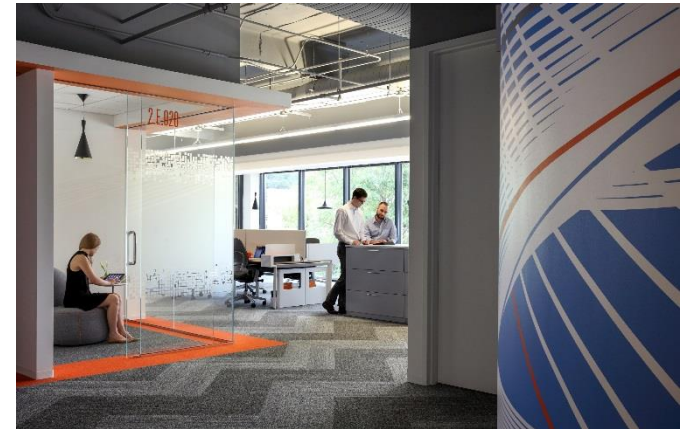
Advancing Economic Development Through Innovation

- A **focus on Key Industries** to accelerate businesses ability to connect, compete and grow
 - Aerospace (Macon)
 - Agribusiness (Tifton)
 - Energy Technology (Atlanta)
 - Information Technology (Atlanta)
 - Logistics (Savannah)
 - Manufacturing (Atlanta)



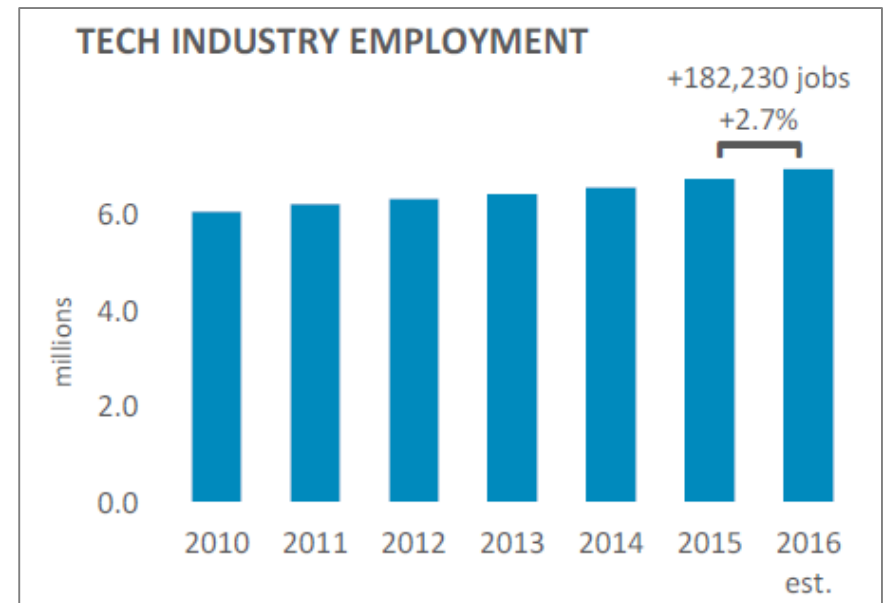
Georgia's Innovation Ecosystem

- Georgia ranks 6th in the U.S. for new tech startups and new business establishments © 2017 CompTIA Properties, LLC, "CYBERSTATES 2017"
- Ranked 6th in tech patents granted © 2017 CompTIA Properties, LLC, "CYBERSTATES 2017"
- Corporate Innovation Centers –
 - Used to get involved in an innovative community and to recruit highly skilled talent
 - 33 Corporate Innovation centers in Georgia



U.S. Information Technology Landscape

- U.S. tech sector employment was an estimated 6.9 million in 2016
- Tech industry employment grew 2.7 percent
- Average wages were \$108,900 in 2016
- Tech startups and new tech business establishments increased by 12% in 2015
- Subsector growth leaders:
 - Software publishers up 7.6%
 - IT services up 5.7%
 - Internet hosting and web services up 7.3%

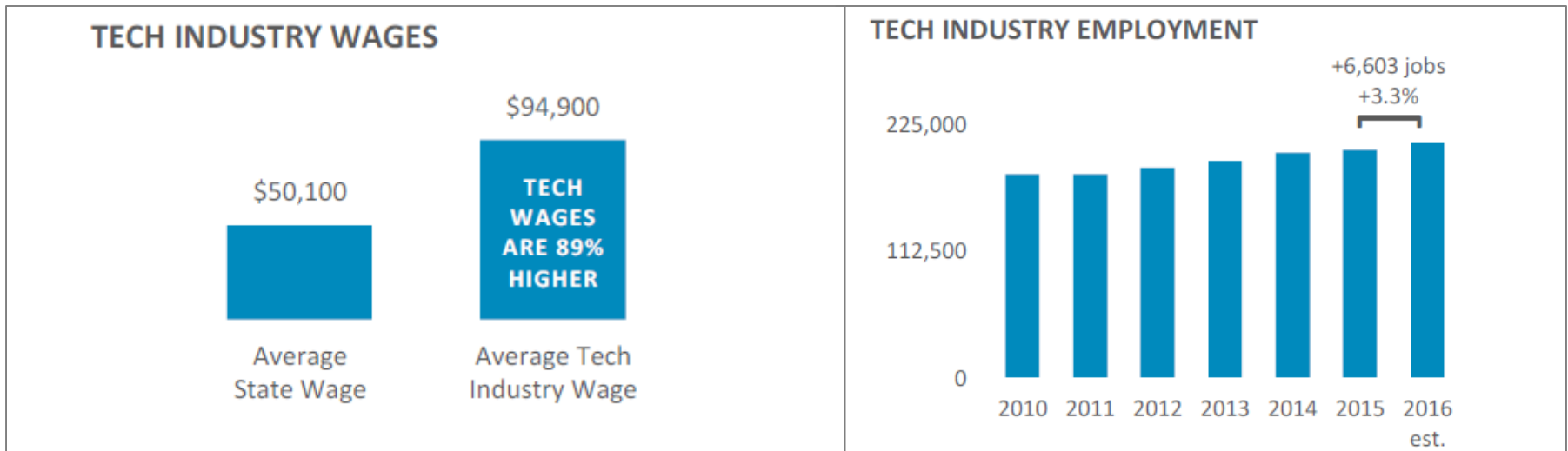


Source: © 2017 CompTIA Properties, LLC, "CYBERSTATES 2017"



Information Technology Impact in Georgia

- Georgia technology companies generate an economic impact of over \$113 billion and contribute 13% of our GDP. © Technology Association of Georgia, "2017 State of the Industry Report: Technology in Georgia"
- Over 18,000 registered technology businesses with over 207,000 jobs © 2017 CompTIA Properties, LLC, "CYBERSTATES 2017"
- Georgia is ranked 12th in the U.S. for technology jobs. © 2017 CompTIA Properties, LLC, "CYBERSTATES 2017"
- Atlanta ranks 5th in the US for technology business establishments. © 2017 CompTIA Properties, LLC, "CYBERSTATES 2017"
- Georgia's technology sector average wage was approx. \$94,915 in 2016. © 2017 CompTIA Properties, LLC, "CYBERSTATES 2017"



Information Technology Research in Georgia's Universities

- Georgia Research Alliance
 - University of Georgia
 - Georgia Institute of Technology
 - Georgia State University
 - Augusta University
 - Clark Atlanta University
 - Emory University
 - Mercer University
 - Morehouse University
- Other Engineering Research Universities
 - Georgia Southern University
 - Kennesaw State University



~\$1 Billion in University Research Annually

(Source: National Science Foundation)



Georgia.org/Innovation



Information Technology Research in Georgia's Universities

- Georgia Research Alliance Eminent Scholars Program
 - Recruiting world-class scientists to Georgia universities (60+ currently)
 - Investing in state-of-the-art research technology for university labs
 - \$595 million state investment leveraged into \$3.8 Billion total investment
- Georgia Research Alliance Venture Fund
 - Fueling commercialization of university-based discoveries and inventions
 - Multi-phase commercialization grants & Low-interest loans
 - Over \$1 billion in equity investment, launched more than 150 active companies

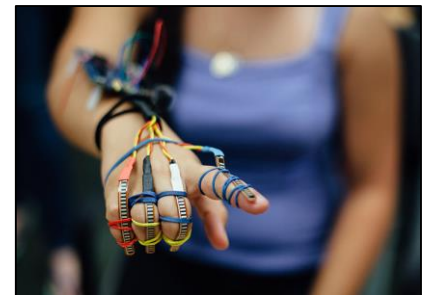
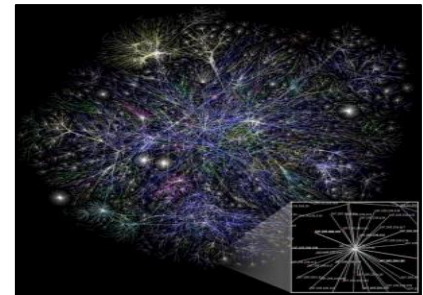
GRA Eminent Scholars in Computing, Networks, & Security:

- [Dr. Gee-Kung Chang](#) – Georgia Tech - Optical Networking
- [Dr. Edward J. Coyle](#) – Georgia Tech - Sensor Networks, Education, & Service Learning
- [Dr. Russell Dean Dupuis](#) – Georgia Tech - Electro-Optical Systems
- [Dr. James D. Foley](#) – Georgia Tech – Telecommunications
- [Dr. Felix Herrmann](#) – Georgia Tech - Computational Imaging
- [Dr. Biing H. Juang](#) – Georgia Tech - Advanced Communications
- [Dr. Rao R. Tummala](#) - Georgia Tech - Electronic and Bio-electronic Ultraminiaturized Systems
- [Dr. Marilyn Wolf](#) – Georgia Tech - Embedded Computer Systems



Information Technology Research in Georgia's Universities

- Georgia Tech
 - [Institute for Data Engineering and Science \(IDEaS\)](#) connects research efforts horizontally in big data foundations (machine learning, high performance computing, algorithms) & catalyze data driven research vertically in important domains (precision medicine, materials science, energy, etc.)
 - [Institute for Information Security & Privacy](#) coordinates 11 labs and centers dedicated to solving the grand challenges of cybersecurity.
 - [Institute for People and Technology](#) promotes Innovation in media, information, & computing technologies to transform complex, human-driven enterprises such as healthcare, education, entertainment, business, civic, urban and humanitarian systems.



Information Technology Research in Georgia's Universities

- Georgia Tech
 - [Institute for Robotics and Intelligent Machines \(IRIM\)](#) pushes the robotics frontier, organized around the core areas of Human-Augmentation and Autonomy.
 - The [Center for the Development and Application of Internet of Things Technologies](#) (CDAIT) fosters the development of interdisciplinary Internet of Things (IoT) research.
 - The [Center for Research into Novel Computing Hierarchies](#) (CRNCH) explores novel hierarchies for computing
 - [Georgia Tech Research Institute](#) (GTRI) has applied research projects & laboratories in several areas aligned with IT:
 - [Cybersecurity, Information Protection, and Hardware Evaluation Research \(CYBER\) Laboratory](#)
 - [Information and Communications Laboratory](#)



Information Technology Research in Georgia's Universities

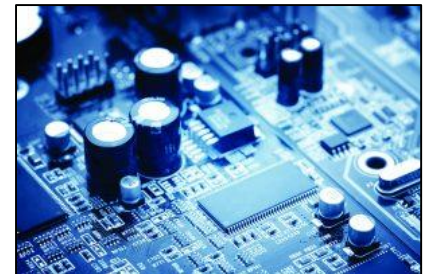
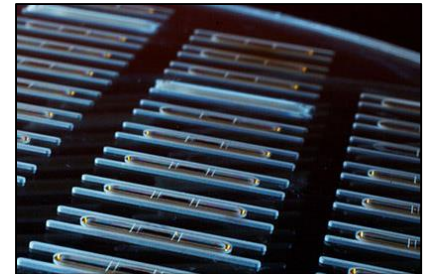
- National Centers of Academic Excellence in Cyber Defense (CAE-CD) – Accredited Georgia Universities
 - Armstrong State University, Center for Applied Cyber Education
 - Augusta University, Cyber Institute
 - Columbus State University, Center for Cyber Defense Education
 - Georgia Institute of Technology, Institute for Information Security and Privacy
 - Kennesaw State University, Coles College of Business, Center for Information Security
 - University of North Georgia, Center for Cyber Operations Education



Information Technology

Advancing Economic Development

- Health IT
 - Georgia home to over 212 Health IT companies
 - Health IT capitol of the U.S. with ~\$4-5B in revenue generated in Georgia
- FinTech
 - ~70% of All Payment Card Transactions pass thru Georgia
 - More than 100 FinTech Companies in the State
- Cyber Security
 - Home to 115+ Information Security companies



Information Technology

Advancing Economic Development

- **TruRating**, a mass-market rating system offered to retailers and restaurants as an alternative to traditional rating sites like Yelp! and TripAdvisor. Founder and CEO Georgina Nelson recognized Atlanta's commitment to IT innovation and with support from the Georgia Center of Innovation for IT and the Georgia Department of Economic Development she decided to plant the flag of her American outpost in Georgia in 2015 (TruRating is already live in both the UK and Australia and has offices in Canada).



Information Technology

Advancing Economic Development

- CODA at Tech Square
 - First of its kind Class T office environment design to facilitate interaction between start-ups, Fortune 500 companies, researchers & students
 - 645,000 SF office + 80,000 SF high performance computing space/data center
 - Collaborative areas on each floor + 50,000 SF in co-working space
 - \$375M investment



*Concept of completed CODA in Midtown
Atlanta at Tech Square*



Information Technology

Advancing Economic Development

- Hull McKnight Georgia Cyber Center for Innovation & Training
 - Single largest investment in a cybersecurity facility by a state government to date - \$100M
 - P3 includes Augusta University, Augusta Technical College, the University System of Georgia, City of Augusta, Georgia Bureau of Investigation, Georgia Department of Defense, & other state, federal, and private-sector partners
 - 332,000 square feet in two buildings



Information Technology

Advancing Economic Development

- U.S. Army Cyber Center of Excellence at Ft. Gordon
 - Cyberspace Operations, Signal/Communications Networks & Information Services, & Electronic Warfare (EW)
 - Training, education, & development of world-class, highly skilled Signal, Cyber, and EW professionals supporting operations at the strategic, operational, and tactical level.
 - Also home to National Security Agency Central Security Service facility



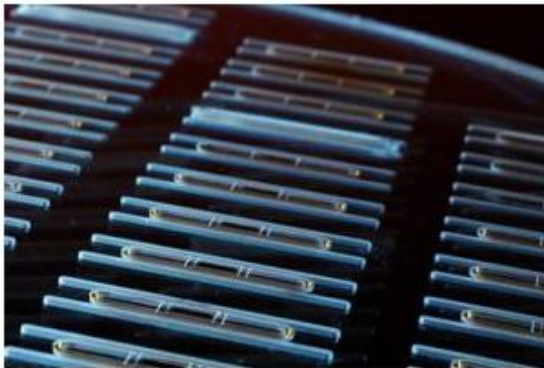
Georgia's Centers Of Innovation

Center of Innovation for Information Technology



Information
Technology

Focused on:



Health IT and Medical Devices



Cybersecurity



Mobility



Glen Whitley

Director

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Georgia has one of the largest and most diverse technology industries in the nation with major strengths in health IT, medical devices, software development and digital entertainment. More than 14,300 technology companies and 165,000 employees call Georgia home



Georgia.org/Innovation





Georgia's Centers of Innovation
www.Georgia.org/Innovation

**Helping Georgia's Industries to
Connect, Compete, and Grow
in the Global Marketplace**



Aerospace



Agribusiness



Energy
Technology



Information
Technology



Logistics



Manufacturing



a division of the Georgia Department of Economic Development