A Message from the Vice President

Welcome to the 2012 annual report of the Georgia Tech Enterprise Innovation Institute (EI²). EI² is Georgia Tech’s primary business outreach organization, providing a comprehensive program of assistance to business, industry, entrepreneurs, and economic developers. Our goal is to help enterprises of all kinds apply science, technology, and innovation to improve their bottom lines.

Commercializing university research and boosting startup companies have become economic development priorities at the local, state, national, and international levels. Georgia Tech has been at the forefront of these efforts since the 1980s.

Georgia Tech’s formal efforts to support startup companies began in 1980 with the launch of the Advanced Technology Development Center (ATDC), a technology accelerator that helps Georgia entrepreneurs launch and build technology companies. A unit of EI², ATDC has helped launch more than 140 companies that, together, have created thousands of jobs and attracted more than $1 billion in investment.

Building on the ATDC foundation is EI²’s VentureLab program, which aggressively seeks out commercialization opportunities from the discoveries and inventions of Georgia Tech researchers. With support from organizations such as the Georgia Research Alliance, this effort has led to the formation of more than 100 companies, including solar energy firm Suniva and medical device company CardioMEMS. VentureLab also connects entrepreneurs who have identified a market need with Georgia Tech technology able to meet that need.

EI² also worked with Georgia Tech’s College of Computing to create Flashpoint, a program that educates company leaders in startup discovery, a concept designed to reduce the risks and costs of launching a new company. Other initiatives, such as the Georgia Tech Integrated Program for Startups (GT:IPS), have made it easier for entrepreneurs to license technology developed at Georgia Tech.

Recognizing Georgia Tech’s experience with commercialization and startups, in July 2012, the National Science Foundation (NSF) made Georgia Tech a node in its new I-Corps program. I-Corps helps the recipients of NSF research investments identify commercial opportunities and test their viability using scientific principles. EI² commercialization specialists have, so far, taught 75 NSF teams from around the country, and, in early 2013, they took their teaching techniques on the road to reach a cohort of researchers in Washington, D.C.

Other EI² assistance programs help communities assess the potential for incubator and acceleration programs, while other initiatives—including our Georgia Manufacturing Extension Partnership (GaMEP)—support these companies as they grow.

There’s more to EI² than supporting startups, of course, as you’ll see in the overviews found elsewhere in this annual report. It’s been a particularly busy year for startups—and it’s an exciting time to be at Georgia Tech!

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Enterprise Innovation Institute (EI²)  
2012 Project Highlights

Georgia Tech’s Enterprise Innovation Institute (EI²) helps enterprises of all types and sizes—companies, health care providers, entrepreneurs, economic developers, and communities—improve their competitiveness through the application of science, technology, and innovation. EI² is the nation’s largest and most comprehensive university-based program of business and industry assistance, technology commercialization, and economic development. The following are some examples of EI² projects:

Addressing Health Care Costs

Employers everywhere are struggling with the rising cost of providing health care for their employees. However, some companies have developed best practices that allow them to provide outstanding health care benefits while holding down costs. To share those best practices with other companies, EI² has supported the development of “Employers Like Me,” an initiative that facilitates peer-to-peer sharing within groups of CEOs and human resource directors. Among the lessons learned: develop standard processes, obtain metrics to inform health improvement efforts, offer on-site clinics to provide immediate care, tailor self-insurance programs, and bring together groups of companies to collaborate with health care providers.

Ensuring Access to Online Government

The Internet is changing the way government agencies serve the public, expanding access to government services and programs through websites and smartphone applications. In 2012, the Georgia Americans with Disabilities Act Coordinator’s Office began discussions with EI²’s AMAC, which provides products and services to assist individuals with a wide range of disabilities, about ways to meet the electronic information access needs of both employees and customers with disabilities. The discussions led to the development of a joint project, Electronic Information Technology Accessibility (EITA), designed to ensure that state agencies’ Internet and mobile applications are usable and accessible to individuals with a wide range of disabilities. Launched in December 2012, the five-phase project began with EITA training and feedback from a pilot group. Ultimately, the program will be delivered statewide.

Identifying Commercial Potential in Research

The National Science Foundation’s (NSF) I-Corps program helps the recipients of NSF research investments identify commercial opportunities and test their viability using scientific principles. Recognizing EI²’s long experience with commercialization and startups, the NSF, in July 2012, made Georgia Tech a founding node in its I-Corps network. By early 2013, EI² commercialization specialists had taught 75 NSF teams from around the country, including seven from the Georgia Tech research community. The seven-week I-Corps program emphasizes customer validation for potential new products and services arising from NSF-sponsored projects.

Connecting to Georgia Tech

A key role of EI² is connecting industry to Georgia Tech’s resources. One of the newest resources, the Carbon-Neutral Energy Solutions Laboratory (C-NES), is designed to be a center for the development of pilot-scale carbon-neutral energy conversion technologies critical to energy-dependent industries and energy producers. The initial areas of focus for C-NES include combustion, gasification, and carbon dioxide capture. C-NES also offers a seamless environment for collocating collaborators from industry, academia, and government to conduct translational and pre-commercial research and development. EI² is facilitating those interactions.
Engaging Providers in Health Care Information

In collaboration with the Georgia Department of Community Health (DCH), EI2 was part of a Georgia Tech team that conducted user experience research to uncover and assess the practices and motivations that drive health care providers—including physicians, nurses, and administrators—to adopt health information technology. Leveraging the primary research findings, the team developed user experience materials that are helping to shape the business, product development, and marketing strategies of the statewide health information exchange. “The materials this project team provided have given us a quick start on getting health care providers actively engaged in the state’s health care information exchange,” said Kelly Gonzales, director of the DCH’s Division of Health IT.

Building a Sweet Success Story

It’s an all-American success story. Laura Darnall and Lois Judy of Savannah, Georgia, met in 2006 on the sidelines of their daughters’ soccer game. Two years later, they formed Fondarific and were making their fondant, a moldable icing used on baked goods, in a shed in Darnall’s backyard. Today, the company operates a 10,000-square-foot production plant, is shipping its product to international customers, has received recognition from the U.S. Small Business Administration, and reports that it generated $2.5 million in revenue in 2011. A key component of the firm’s growth, Darnall and Judy say, has been EI2’s Georgia Manufacturing Extension Partnership (GaMEP). GaMEP has helped Fondarific improve its production flow, select the right equipment, and expand its customer base.

Assessing Readiness for an Incubator

To develop new jobs and economic activity, many communities look to their local entrepreneur community. Among the initiatives they may consider is development of an accelerator or incubator program designed to help entrepreneurs launch and build new enterprises. EI2 worked with Dalton in northwest Georgia to evaluate its readiness for such a business incubator program. Specialists inventoried the community’s resources and found that it had a broad base of entrepreneurs, potential employees with high skill levels, and individuals who may be willing to make the initial investments needed to launch new ventures. The community is evaluating the EI2 report for a decision on how to proceed.

Planning a Green Industrial Park

EI2 helped the Griffin-Spalding Development Authority (GSDA) with planning for a new green industrial park, to be known as The Lakes at Green Valley. The GSDA had purchased the land and installed basic infrastructure but needed assistance in defining building construction specifics and what would be expected of the tenants who would occupy the buildings, as well as what features the park should incorporate. EI2 community innovation specialists met with the GSDA to understand the project’s goals, researched what other eco-industrial parks had done, and conducted a half-day forum in which Georgia Tech experts on topics such as sustainability and alternative energy discussed the options. The work led to a report and series of recommendations that are under study by the GSDA.

In-Sourcing Benefits Manufacturers

Georgia companies got some good news from the 2012 Georgia Manufacturing Survey. For the first time since researchers began tracking the statistic, more Georgia manufacturers are benefiting from in-sourcing, with production work coming to them from outside the state rather than going to other states and countries. The survey also showed that the return on sales for companies competing on the basis of innovative products, processes, or services was twice that of companies competing on the basis of low price. Georgia Tech researchers collaborated with Kennesaw State University, the Georgia Department of Labor, and accounting firm Habif, Arogeti and Wynne, LLP in conducting the survey.
Boosting On-Time Delivery

In early 2011, managers at GIW Industries had decided the on-time delivery rate of 90 percent at the firm’s two Georgia production plants, in Grovetown and Thomson, wasn’t good enough. The firm manufactures slurry pumps, which are used in a variety of settings—such as in mining and on dredge ships—to move often-abrasive mixtures of liquids and solids. For guidance and training in its efforts to make improvements, the company turned to the Georgia Manufacturing Extension Partnership (GaMEP) at Georgia Tech. More than a year later, GIW Industries has not only significantly improved its on-time delivery but has also realized nearly $250,000 in annual savings from the refined production processes.

Ensuring Access to Email Marketing

EI2’s AMAC, which provides products and services to assist individuals with a range of disabilities, didn’t have to look far for a new email marketing service, following its move from Athens to Atlanta. New neighbor MailChimp had built a solid reputation in that business and welcomed the opportunity to have AMAC evaluate how accessible its products and services were to users and to the targets of their email campaigns. On the AMAC audit, MailChimp received a nearly perfect accessibility score. “There are two aspects to the success of this engagement,” said Christopher Lee, AMAC director. “MailChimp is an even stronger competitor in its business domain, and we have a new and extremely accessible email service.”

Managing Health Care Expenses

New technology companies often get their start when an entrepreneur thinks, “There’s got to be a better way.” Faced with a mountain of confusing bills and paperwork following the birth of his daughter, Georgia Tech alumnus Bird Bitch reached out to fellow alumnus Joshua Silver to create Patientco. With guidance from EI’s Advanced Technology Development Center (ATDC) and an investment from Blue Cross Blue Shield, Patientco was established to empower patients to take control of health care expenses. Patientco’s technology enables providers to communicate effectively with patients to give them a better understanding of their health care costs and payment options—an advantage that increases a patient’s probability of paying.

Improving Customer Service

Even though Osborne Wood Products in Toccoa, Georgia, had grown significantly since its start in 1979, founder Leon Osborne wasn’t satisfied. So, he contacted EI’s Georgia Manufacturing Extension Partnership (GaMEP) for assistance in transforming the firm’s production of corbels, table legs, kitchen island legs, and other wood products. The collaboration slashed machinery setup times from an average of 30 minutes to an average of four minutes, enabling Osborne Wood Products to realize same-day shipment of more than 90 percent of customer orders. “We’ve created a standard of customer service that is difficult for our competitors to match,” Osborne said.

Protecting Data in the Cloud

Adam Ghetti, irritated with Facebook’s ever-changing rules, wanted control of his own data. Today, the company he cofounded, Social Fortress, has moved beyond offering services to consumers who want greater control over their social network posts. The company is providing data security services to Fortune 500 corporations and defense industry clients, using a proprietary, encryption-based client/server platform that frees end users from having to provide their own safeguards. Ghetti got help along the way from the Advanced Technology Development Center (ATDC), and from Flashpoint, the Georgia Tech program that educates company leaders in startup discovery. “ATDC helped me connect with the resources of Georgia Tech in meaningful ways,” said Ghetti. “These smart people offered unfiltered and unbiased advice and made key introductions for me.”
Monitoring Water Use

Millions of apartments in the United States are not individually metered for water use. As a result, many tenants are unaware of their consumption and have little incentive to conserve water. Additionally, property owners spend millions of dollars annually on water expenses that should be passed on to tenants. Jeff Leaders, a veteran in the multifamily real estate sector, saw the problem as an opportunity. VentureLab and the Advanced Technology Development Center (ATDC) connected Leaders to Justin Romberg in Georgia Tech’s School of Electrical and Computer Engineering, and Romberg helped develop the innovative, non-invasive meter technology sold by Soneter, Leaders’ startup company. Soneter also provides property owners and tenants with consumption analysis and hazard predictions that can help them reduce their water footprint.

Managing Energy Use

There is pressure on large companies to reduce energy costs and better manage their carbon footprint. Urjanet, the brainchild of entrepreneur Sanjoy Malik, is working with large multi-location energy consumers to meet this challenge. Through VentureLab and the Advanced Technology Development Center (ATDC), Malik teamed with Sham Navathe of Georgia Tech’s College of Computing and Ravi Subramanian of Georgia Tech’s Scheller College of Business to develop technology that gathers real-time and historical data on energy pricing and usage and delivers it directly to the customer. The customer then has the data needed to make critical decisions about energy use and carbon footprint. In 2012, Urjanet caught the eye of venture capitalists, closing a $6 million Series B investment round.

Providing Health Care Data to Patients

The Consumer-Mediated Health Information Exchange in Rome, Georgia, is aiming to allow greater collaboration between providers and patients in the management of their personal health. The initiative will use secure email services and build on federally established guidelines to allow providers to send patients’ health information directly to them. The project team, which included EI², the Northwest Georgia Regional Cancer Coalition, and the major providers of health care services in the Rome-Floyd County area, completed interviews to assess the information needs and desires of patients with breast cancer (the pilot group) and their health care providers. To support the project, EI² is exploring mobile technology, and existing and needed applications that address breast cancer issues.

Organizing a New Manufacturing Plant

Max Manufacturing, located in Pelham, Georgia, produces standalone ice-vending buildings that are essentially giant vending machines that dispense bags of ice and water to the public. The company sought help from the Georgia Manufacturing Extension Partnership (GaMEP) to ensure its manufacturing process was as efficient and cost-effective as possible. The assistance helped the company improve its processes, increasing revenues by as much as $1 million per year and allowing completion of a building in just four days. “GaMEP is a fantastic partner. No matter what you ask for, they jump through hoops to give it to you,” said Max Manufacturing President Tim Maxwell.

Supporting the United Way

EI² has supported the United Way of Greater Atlanta with a series of projects designed to help the organization more effectively serve its constituents. Offering EI²’s independent perspective, specialists in community innovation topics helped the United Way facilitate decision-making processes concerning the allocation of resources among the many worthy projects under consideration in the United Way’s 13-county service area. EI² also helped with a workforce development study and “listening” sessions designed to elicit feedback about needs and challenges.

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Enterprise Innovation Institute (EI²) 2012 Report Card

Georgia Tech’s Enterprise Innovation Institute (EI²) helps enterprises of all kinds improve their competitiveness through the application of science, technology, and innovation. EI² supports the economic development of Georgia through technology commercialization, support of entrepreneurship and startup development, and industry engagement.

During fiscal year 2012, EI²:

- Helped Georgia manufacturing companies reduce operating costs by $38 million, increase sales by $451 million, and create or save 978 jobs. EI² served 1,370 companies during the year.
- Evaluated 199 research innovations developed in Georgia Tech’s research program, and helped form 30 new enterprises that, together, attracted nearly $21 million in investment.
- Assisted 261 companies interested in collaborating with Georgia Tech. Projects resulting from those collaborations created or saved 3,342 jobs and produced more than $1 billion in capital investment.
- Helped Georgia companies win $715 million in government contracts, creating or saving an estimated 14,304 jobs.
- Assisted 85 minority entrepreneurs, who reported more than $77 million in new contracts, increased sales, new bonding, or new financing.
- Served 322 technology startup companies that, together, generated capital activity (venture capital investment and mergers/acquisitions) of more than $222 million.
- Helped Georgia companies prepare 75 proposals for Small Business Innovation Research (SBIR) grants, which resulted in more than $7 million in awards.
- Assisted 3,056 students through EI² technology accessibility services, and saved the University System of Georgia $1.4 million by reusing textbooks converted for students with disabilities.

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The Enterprise Innovation Institute (EI²) serves Georgia through a network of staff members located throughout the state.

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- Northwest Region: 770.387.4002
- Northeast Region: 770.718.3982
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- Central Region: 478.275.5125
- East Region: 706.721.4522
- Coastal Region: 912.963.2519
- South Region: 229.430.6195
- Atlanta Headquarters: 404.385.3871

**EI² programs include:**

- Advanced Technology Development Center (ATDC)
- Alternative Media Access Center (AMAC)
- Community Innovation Services
- The Contracting Education Academy
- Energy Management and Technology Program
- Flashpoint
- Georgia Manufacturing Extension Partnership (GaMEP)
- Health@GT
- I-Corps
- Innovation Partners
- Integrated Program for Startups (GT:IPS)
- Minority Business Development Agency (MBDA) Business Center
- Procurement Assistance Center (GTPAC)
- Southeastern Trade Adjustment Assistance Center (SETAAC)
- Strategic Partners
- VentureLab

EI² services are supported by the state of Georgia and by the federal government through programs such as the National Institute of Standards and Technology’s Manufacturing Extension Partnership and the U.S. Department of Commerce’s Economic Development Administration. EI² is headquartered in Georgia Tech’s Technology Square.

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