

Outcomes 2006

**CENTER FOR
ECONOMIC
GROWTH**

Grow. Attract. Prepare.
New York's Tech Valley



CENTER FOR ECONOMIC GROWTH

anything's possible™

- Grow** Local Business
- Attract** New Investments
- Prepare** Communities for Future Growth

A Message From The Chairman

The world, and the region, has changed quite dramatically in the last 20 years.

Globalization has made the world seem like a smaller place. And regionalization has created, through collaboration and collective action, an economically thriving Tech Valley with a bright future.

CEG has had a significant role in building a regional economic development perspective and in promoting it on a global scale. With its successes spanning a broad range of issues, the organization's mission-focused evolution has been closely aligned with the growth of Tech Valley.

CEG has helped guide our region from a manufacturing and government based economy to a dynamic environment in which technology, research and development, business-education collaborations and public-private partnerships are creating exciting opportunities today and for the future. It has been steadfast in its core mission as we moved from the Tri-City Area, to the Capital District, to the Capital Region and now, to Tech Valley.

The founding of the CEG in 1987 has proven to be a seminal event in our Region's economic development. Over the last two decades, the organization has been both a catalyst and a leader in allowing us to realize a Region rich in potential, not only for its nanotechnology capabilities, but also for its viability in the fields of biotechnology, alternative energy, information technology and advanced materials.

For the past six years, Kelly Lovell has served as CEG's president and CEO. In this role, she has led the organization's growth in size and stature, while serving among the Region's most tireless advocates for widespread collaboration and smart growth. She and her immensely capable colleagues at CEG have been at the forefront of Tech Valley's evolution through its most exhilarating period to date, including the long-sought attraction of a global leader in the semiconductor industry.

For her work on behalf of the Region's companies and communities, as well as her untiring promotion of Tech Valley around the world, she has earned our gratitude. I'd also like to thank the past chairs, past presidents, board members, and staff who have guided CEG for the past 20 years. Together, you all have laid the strongest of foundations upon which we can continue to build our Region's future.

- Thomas Geisel, Chair CEG
President, Northeast Region, KeyBank

A Message From The President

Collaboration and commitment have been the hallmarks of CEG's many accomplishments over the past 20 years. Through the collective and often visionary work of leaders from business, government, higher education and the community, we have made considerable advancements and accomplishments on behalf of the Region.

Most recently, and notably, Advanced Micro Device's intent to build a 600-acre chip manufacturing plant at the Luther Forest Technology Park truly signified the Region's arrival as a prominent player on the global technology stage.

However, we cannot afford to merely rest and reflect on previous successes and promises for the future. While savoring the satisfaction of significant achievement, we must ask, "What is next?" and plan accordingly.

For CEG, the response is continual improvement on our three core responsibilities -- growing companies, attracting investment and preparing communities for tomorrow. It also means focusing on new challenges, just as we did when we advanced Tech Valley's nanotechnology and semiconductor sectors.

In its 20th year, CEG is stronger than ever. In delivering my last message as president, I am proud of what we have achieved together and am excited about this organization's critical and continuously expanding role in the future. The strength of CEG's staff, volunteer leadership, reputation and established position in the region and beyond will be an essential underpinning for the anticipated growth of our region.

Tomorrow's Tech Valley will be one of broad-based opportunity and economic prosperity thanks to CEG's success in fostering collaborative efforts, nurturing a spirit of innovation, promoting the region globally and leveraging resources to recruit and retain established and emerging businesses.

As I leave CEG after 14 years I am deeply grateful to the many individuals who believed, along with me, that by working together anything is possible.

- Kelly Lovell, President and CEO, CEG

GROW

Vision: Assist Local Companies with Business Development Strategies for Accelerated Growth

CEG is committed to promoting Tech Valley as a thriving center for innovation, discovery and accelerated growth. Regional economic vitality depends on the strength of local companies, so CEG offers business acceleration and support services throughout Tech Valley. CEG also supports several industry-focused groups that capitalize on the value of networks and the collective approach to sharing resources and ideas.

Initiatives:

Technology Roadmap (www.technologyroadmap.org)



CEG is working to define a Roadmap for the future of Tech Valley. In support of this vision, CEG has created an online toolset that captures a comprehensive inventory of regional technology assets while creating an interactive community of technology professionals. The site links visitors to information about global technology trends and resources that support continued growth, including new business and commercialization opportunities.

2006 Outcomes:

- ▶ Registered community members topped 1,700 individuals, up by 31 percent; more than 4,000 individuals visit the site each month; approximately 17,000 searches are executed on a monthly basis to search the Roadmap's 440 available organizational profiles, up by 113 percent; and users posted nearly 300 Tech Exchange listings in the past year.
- ▶ Demonstrated the Roadmap site as a best practice to manufacturing and technology-focused economic developers at the National Institute for Standards in Technology (NIST) conference held in May in Orlando, Florida.
- ▶ Developed and distributed 2006 Technology Almanac to all subscribers (more than 11,000) of The Business Review, helping to drive new profiles and broader regional business interest in technology companies.
- ▶ Held 2006 Technology Roadmap Ultimate User Contest to collect user success stories. Winning story featured a \$1 million deal CVD Corporation made with DayStar Technologies.

GROW cont.

- ▶ Signed proposal with Metropolitan Development Association of Central New York to integrate searches, creating new business opportunities along with broader and deeper search capabilities.
- ▶ Conducted a discussion forum on the state of the local entrepreneur pipeline in May. Six industry panelists led the discussion while hundreds of Roadmap visitors looked on. The chat sparked media interest, resulting in coverage in the Times Union, Schenectady Daily Gazette and in the nationally-read weblog EDPro News.

Program Sponsors:

- ▶ Einhorn Yaffee Prescott, Architecture & Engineering P.C.
- ▶ Yoh Company
- ▶ Bank of America

Technical Consulting Services

CEG assists regional technology and manufacturing companies with specific solutions to create and retain jobs, increase sales and expand capital investment.

2006 Outcomes:

- ▶ Assisted 220 client companies in generating \$11.7 million in increased sales, \$400,000 in cost savings, \$1.5 million in new capital investments and \$4.6 million in job impact. Overall impact was \$18 million.
- ▶ Administered 143 Lean Enterprise training classes to more than 1,500 participants from 161 companies, resulting in measurably increased skills and productivity for employees and greater profitability for the companies.
- ▶ Provided full-scale Lean implementation training for 11 manufacturers to help improve work flow processes, which resulted in improved revenue and reduced operating costs.
- ▶ CEG provides program expertise to the Institute for Excellence in Manufacturing in the areas of, Lean, Sales, Global Business Development, Six Sigma, ISO, and Lean Sigma, as well as other training as needed. Training in these areas of expertise was provided in the form of 148 different class sessions to 1,211 attendees from 168 companies.
- ▶ Delivered \$42,025 in information technology services to five Capital Region manufacturers, completed a concurrent ISO 9000/14000 implementation at Starfire Systems, and nearly \$120,000 in marketing research consultative support services to four local companies.

GROW cont.

- ▶ Worked with the NASA Space Alliance Technology Outreach Program (SATOP) to provide up to 40 hours of free technical engineering assistance from NASA and its partners to six local companies.

Business Accelerator

The CEG Business Accelerator is a customized program that serves the Region's most promising growth-oriented technology companies. Once accepted into the program, a participating company has frequent contact with CEG for a six-month term, as the Business Accelerator team provides or secures the range of services needed to accelerate business growth. In addition, selected companies may engage the Business Accelerator team in quick-hit "catalyst" projects for immediate help in overcoming a specific growth challenge.

2006 Outcomes:

- ▶ Completed work to increase sales, facilitate access to regional resources and build long-term skills and advisory networks for four participating companies.
- ▶ Fortified the capabilities of the 17 Watervliet Innovation Center participants to deliver needed homeland security technologies, through providing acceleration services such as business model advisory sessions, introductions to funding partners and customers, building advisory boards and providing CEO training.
- ▶ Increased access to formal advisors and hands-on acceleration services for earlier stage companies, those most in need of expertise and resources.
- ▶ Expanded the pipeline of quality candidate companies through partnering with regional venture funds.
- ▶ Continued the in-depth screening process for participation, with one candidate currently in negotiations to join the program.
- ▶ Launched the Greene County Accelerator in conjunction with Greene County IDA.

Program Sponsors:

- ▶ Deloitte and Touche

GROW cont.

Technology Companies of the Year Awards

The Technology Awards Luncheon honors the Region's most innovative and growth-oriented companies and individuals and recognizes the convergence and diversity of technology industries making great strides in Tech Valley in nanotechnology, biotechnology, information technology, advanced materials and alternative energy sectors.

2006 Outcomes:

- ▶ Celebrated the 10th anniversary of CEG's Technology Awards on May 5, 2006 with more than 400 attendees.
- ▶ Featured Jack Uldrich, President of The NanoVeritas Group and author of The Next Big Thing Is Really Small: How Nanotechnology Will Change the Future of Your Business, as a guest speaker.
- ▶ Recognized seven local companies with achievement awards.

Venture Programs

Venture Bplan (www.venturebplan.com)

The Venture Bplan Series

SmartStart (www.smartstartvf.com)



TVAN (www.techvalleyangels.com)



These programs provide opportunities for regional technology companies to present their business plans and financing needs to potential investors, receive valuable feedback and open doors to more in-depth conversations about funding support. Access to both funding resources and business experience occurs through these forums, and significant efficiencies for pipeline companies have been realized by grouping these programs under one roof, benefiting companies, funding firms and service providers.

GROW cont.

2006 Outcomes:

- ▶ Venture Bplan highlighted 10 early-stage emerging technology companies in 2006. One company, showcased last year, experienced an exit event through acquisition by a major Internet portal provider. The total funding raised by companies throughout the life of this program is more than \$78 million.
- ▶ Tech Valley Angel Network (TVAN) celebrated its five-year anniversary, having showcased 78 companies and generating 16 successful funding events totaling more than \$1.4 million, a 20 percent success rate.
- ▶ SmartStart Venture Forum featured 17 technology companies from throughout New York state. Total investments secured over the life of the forum are more than \$57 million.
- ▶ SmartStart and UNYTECH (Upstate New York TECHNOLOGIES from universities) completed a successful trial collaboration in 2006 with plans to combine forums for 2007, positioning this event as the state's pinnacle venture opportunity for both pre-venture and venture-ready firms.

CEOConnex (www.ceoconnex.com)



Launched in 2002, CEOConnex is a nine-month program that links burgeoning technology leaders with some of the Capital Region's most successful corporate executives. This unique program grows the leadership talent of emerging technology executives by identifying and bringing together the next generation of entrepreneurial leaders, creating professional alliances between emerging and seasoned executives and developing business strategy and executive leadership skills required to accelerate the growth of technology ventures.

2006 Outcomes:

- ▶ Graduated five participants from the 2005-2006 class, including executives from 1st Playable, Agora Studios, Arcadia, BullEx Digital Safety and LabPrints.
- ▶ Refocused the program based on participant feedback and input regarding other executive training opportunities. Content will directly address the participants' current challenges and opportunities through the hands-on application of tools and advice.

GROW cont.

- ▶ Secured five participants for the 2006-2007 class.
- ▶ Secured four guides with expertise in entrepreneurship, sales, human resources and finance to assist participants throughout the nine-month program.
- ▶ Conducted the 2006-2007 kickoff and began the calendar of Performance Oriented Discussions (PODs) and Hosted Dinners, securing successful regional executives as guest speakers and dinner hosts.

Watervliet Innovation Center (www.watervlietinnovation.org)



The Watervliet Innovation Center (WIC) is a state-of-the-art business and technology accelerator focused on growing homeland and national security ventures. It is the second such highly specialized program in the nation and provides a demand pull infrastructure, where client companies gain visibility into the technology needs of the defense and security industry through a national network of academic, industrial and government stakeholders. The WIC is located within the Watervliet Arsenal complex, taking advantage of the proximity to Department of Defense research and manufacturing activities, co-location with defense contractors and secure facilities and communications infrastructure.

2006 Outcomes:

- ▶ Secured \$750,000 in federal funding to support the ramp-up of the program.
- ▶ Recruited five additional technology companies working in areas such as nano-sensors, emergency notification and advance image analysis. There are a total of 17 current participants.
- ▶ Conducted a Homeland Security Convergence event in partnership with the New York State Business Council's Homeland Security Council, pairing technology innovators with agency and integrator customers seeking to fill technological needs.
- ▶ Partnered with the Metropolitan College of New York, one of the first in the nation to offer a masters degree program in homeland security, making graduate-level homeland security training available to the Region's workforce.

GROW cont.

- ▶ Formalized subcontract agreements with best-in-class providers to augment skills in specific areas such as GSA contracts, technical grant writing and classified technology scouting.
- ▶ Actively engaged a national level board of advisors in setting program strategy and directly assisting participants.
- ▶ Implemented core program operations, including: formal candidate screening; recurring briefings on business and industry topics such as Navigating DHS and Why Salespeople Fail; funding opportunity identification and communication; broad-based business development for participant companies, including exhibiting at tradeshows and providing specific agency and integrator introductions; delivery of customized business services ranging from sales support to board building; physical infrastructure access and management.

Program Sponsors:

- ▶ Heslin Rothenberg Farley & Mesiti
- ▶ Bank of America

Industry-focused Networks

CEG facilitates several industry-focused networks that enable companies to share resources and ideas. Networks in biotechnology, manufacturing and information technology include:

Bioconnex (www.bioconnex.org)



Dedicated to developing and growing the biotechnology community to establish Tech Valley as a premier global location for biotechnology research, education and industry.

2006 Outcomes:

- ▶ Maintained an online communication hub for the biotech community, including a Web site with news and event information and distribution of monthly e-mail communications promoting upcoming biotech events across the Region.
- ▶ Managed "Bioconnept Workshops" - a monthly mentoring service for Bioscience entrepreneurs and investors

GROW cont.

- ▶ Hosted six forums to provide educational and networking opportunities to the biotech community with topics ranging from starting a biotech company to nano-medicine.
- ▶ Hosted Albany Conference, an annual one-day symposium, on Cancer and Stem Cell Signaling.
- ▶ Released the Technical Resource Locator tool to the biotech community.
- ▶ Showcased Tech Valley at New York Biotechnology Association's (NYBA) 2006 annual meeting.
- ▶ Participated in media road show with NYBA to provide awareness to local media on biotech in the Region
- ▶ Featured in September issue of NatureJobs "Spotlight on Upstate NY."

Chief Executives Network for Manufacturing (CEN) (www.cenmfg.org)



Dedicated to providing a high-quality forum for local manufacturing CEOs and top executives to discuss critical business issues and topics.

2006 Outcomes:

- ▶ Held topic-specific forums, ranging from international issues to power usage costs, for 80 manufacturing CEOs.
- ▶ Awarded four \$1,000 scholarships to students pursuing manufacturing-related studies at the collegiate level.
- ▶ Facilitated the Lean Users Networking Association (LUNA) to provide the best practices and benchmarking for CEN and local manufacturing organizations.
- ▶ Secured a second \$500,000 grant through Empire State Development Corporation for the Institute for Excellence in Manufacturing (IFEIM), which will be used for training in Lean Initiatives, Six Sigma, Lean Six Sigma, Sales Training, ISO and other areas.

Techconnex (www.techconnex.org)



Dedicated to building and supporting a broad-based technology community by providing comprehensive connections to information technology and professional resources in Tech Valley.

GROW cont.

2006 Outcomes:

▶ Hosted five networking Fiestas featuring technology-oriented seminars to provide education and business development opportunities to Tech Valley professionals.

Program Sponsors:

- ▶ MapInfo Corp
- ▶ Anchor Agency
- ▶ Auxilia and Gateway Pronet
- ▶ Flow Management Technology
- ▶ Heslin Rothenberg Farley & Mesiti
- ▶ CommSoft and TechValley Communications

ATTRACT

Vision: Vigorous Technology Investment Continues in the Region

CEG is working to expand the current global business attraction model across five technology sectors - advanced materials, biotechnology, alternative energy, information technology and nanotechnology - and to promote the convergence of these sectors in support of critical market needs such as those in the area of homeland and national security. The goal of these efforts is to attract expanding companies, production jobs and new capital investment into the Region. The industry, government and academic collaboration model has successfully attracted more than \$13 billion of investment to the Region in the past eight years. The goal of this expanded marketing initiative is to attract a similar level of investment during the next five years

Technology Industry Attraction Initiative:



CEG has developed an aggressive global industry attraction campaign, which includes trade show participation, industry-specific marketing collateral, prospect generation, sales calls and hosting of special events - all targeted at key industry decision makers. Through a model of regional collaboration, CEG and its many partners have demonstrated a long-term commitment to increasing the Region's economic self-sufficiency by developing Tech Valley as a global technology powerhouse. Initiatives are underway in each of the five industry sectors and related areas of convergence to identify regional assets, partnerships and opportunities to successfully market and brand globally.

ATTRACT cont.

With the Semiconductor Industry Association (SIA) forecasting the microchip industry to reach \$321 billion in 2009, the semiconductor/nanotechnology sector has received the most attention and traction, and in 2006 the Region made several significant gains. The announcement of Advanced MicroDevices (AMD) plan to build a 300MM manufacturing plant in Malta brings many new opportunities to attract the world's leading technology companies to the Region. With the support from our partners, CEG has established our Region as a world leader in nanotechnology and will continue to pursue significant technology focused investment.

2006 Outcomes:

▶ Took a lead roll in collaborating to attract AMD to Luther Forest Technology Park, the largest economic development deal in New York state history. This \$3.2 billion project was given "The Economic Development Deal of the Year Award" from Business Facilities, and will bring more than 12,000 jobs to Tech Valley.

- ▶ Presented the Region's assets through one-on-one sales calls to more than 100 high-potential nanotechnology manufacturing prospects; companies specializing in site location and construction for high technology industries; and major suppliers in the United States, Europe and Asia, as well as several biotechnology, energy and information technology companies.
- ▶ Facilitated and coordinated the ongoing site selection activities of project-specific prospects considering expansion in the Region and worked with communities on site preparation, pre-permitting and development of localized community education programs.
- ▶ Organized participation of nine regional economic developers, 17 supplier companies, four academic institutions and two state agencies at major semiconductor industry trade shows, resulting in more than 1,000 discussions and 50 follow-up meetings for the Tech Valley delegation. Opportunities were provided to network with industry leaders at various events, including the 2006 Semiconductor Industry Association Annual Forecast and Award dinner attended by more than 900 senior-level industry executives.
- ▶ "NY Loves Nanotech" sponsored the Small Times NanoCon International, where more than 700 leading nanotech executives focused on key business issues, partnership development and marketing strategies.

ATTRACT cont.

- ▶ Hosted an Economic Developers Workshop to provide regional economic development partners with information about the semiconductor supply chain and how they can address the growth anticipated for the Region. More than 25 partners attended, including representatives from the top seven sites and technology parks in Tech Valley.
- ▶ Facilitated and coordinated two tours of Tech Valley for a delegation of economic development officials from China. Xi'an Hi-Tech Industries Zone and twelve high-level representatives from companies and organizations such as China Railway Erju Group Corporation, Shangdon Zhongtie City Development Ltd. and The People's Government of Feicheng City participated in this tour.
- ▶ Developed a comprehensive strategic marketing plan for the energy industry using the NY Loves Energy brand to promote and market New York state and Tech Valley modeled after the NY Loves Nanotech initiative.
- ▶ Developed promotional and marketing materials outlining the Region's assets including print brochures, print ads, informative e-mails, trade show graphics and Web site (www.nylovesnano.com) with industry-specific events calendars.
- ▶ As a co-founder and lead partner with the International Alliance of Nanotechnology Regions, CEG provides its member companies with opportunities to connect and do business more efficiently on a global basis. IANRegions was created in 2005 to foster business-to-business, academic-to-business and academic-to-academic partnerships between Tech Valley, Saxony/Germany, Scotland/UK and France and seeks to accelerate the pace of innovation and growth of the nanoelectronics (semiconductor) and nanosystems (MEMS) industries by facilitating trade and research partnerships between regional nanotechnology hubs.

PREPARE

Vision: Preserve and Promote Tech Valley's Outstanding Quality of Life While Helping Each Community Achieve Desired Economic Growth

CEG is helping to attract and retain skilled workers and high-potential companies by leveraging the Region's social, cultural and lifestyle assets. Long-range planning and strategic infrastructure investments help preserve and promote our region's quality of life - which is crucial to regional growth.

PREPARE cont.

Regional Development Strategy

CEG's Regional Development Strategy facilitates growth through intergovernmental cooperation, public/private partnerships, technical assistance and support for significant regional projects. Using industry-specific economic models and planning tools, each community can plan for its best future and see how their choices fit into a broad regional vision.

2006 Outcomes:

- ▶ Completed first-ever regional modeling and benchmarking projects with Capital District Regional Planning Commission, Capital District Transportation Committee, University at Albany and Union College to help local communities make informed land-use and planning decisions. Roll out of findings to occur in meetings across the region in 2007.
- ▶ Furthered regional development partnership opportunities with the Office of the State Comptroller, New York State Department of State, Capital District Regional Planning Commission, Capital District Transportation Committee, Office of Rural Planning and Hudson River Valley Greenway.
- ▶ Conducted more than 50 public presentations raising awareness on opportunities and potential impacts of technology-based growth in Tech Valley.
- ▶ Secured adoption of Regional Development Compact by 12 communities to prepare the area for the improvements in education, health care, shared services, infrastructure, traffic patterns and land use that will be needed for the continued growth and sustainability of the region. Adoption of regional compact could set the stage for a statewide compact.
- ▶ Continued work with regional workforce investment boards, regional BOCES, community colleges and submitted joint proposal to address workforce training and workforce development issues in preparation for AMD and technology growth.
- ▶ Hosted eight meetings of Regional Development Coordinating Council (RDCC) with local not-for-profits, transportation and university representatives to explore partnerships.
- ▶ Supported launch of regional Tech Valley Portal with Tech Valley Chamber Coalition.

PREPARE cont.

Local Government Council

Leveraging each community's strengths, the LGC, co-chaired by Albany Mayor Jennings and Rensselaer County Executive Jimino, seeks areas of collaboration on issues of regional importance and communicates broadly the value and benefit of a collective approach to regional growth.

2006 Outcomes:

- ▶ Legislative bill mandating training for regional zoning and planning officials passed with LGC expressing support.
- ▶ Historic Preservation Tax Credit bill passed with LGC expressing support.
- ▶ Held LGC "Media Day" to advise regional media on LGC's mission and membership.
- ▶ New Member breakfast was attended by 13 communities of which six have expressed interest in becoming actively involved with LGC.
- ▶ Discussions underway with several LGC communities to undertake economic visioning process for elected leaders and stakeholders as part of regional preparation efforts. A consortium of rural "hill" towns has asked CEG to lead economic visioning process early in 2007, with similar work in discussion with communities in Montgomery, Saratoga, Washington and Albany counties.

Advancing Tech Valley Initiative (www.advancingtechvalley.com)



Partnership between CEG and Albany-Colonie Regional Chamber of Commerce to provide a collaborative regional approach to increasing the economic prosperity, progressive growth and quality of life in Tech Valley. Initiative is designed to increase momentum and capitalize on future opportunities for economic and business growth in Tech Valley.

2006 Outcomes:

- ▶ Campaign to date has raised \$7 million from more than 128 investors. Funds have been used by CEG to support:
 - ▶ Technology Industry Attraction
 - ▶ Business Accelerator Program
 - ▶ Watervliet Innovation Center Programs
 - ▶ SmartStart Venture Forum
 - ▶ Economic Modeling Scenario Study
 - ▶ Advancing Tech Valley Web Site

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Get Involved with Making Progress a Priority

You can assist in moving Tech Valley forward.
To learn more please contact CEG at:

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e-mail ceg@ceg.org • www.ceg.org

CEG Funding Partners



a NIST | Network
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nationalgrid

In addition to those specifically mentioned throughout this report, the following individuals and agencies assisted CEG in securing project-specific funding:

New York State Senate Majority Leader Joseph L. Bruno

U.S. Senator Hillary Rodham Clinton

U.S. Senator Charles E. Schumer

U.S. Congressman Michael R. McNulty

U.S. Congressman John E. Sweeney

Chief Executives Network for Manufacturing

NYSERDA

New York State Department of Labor

Workforce Investment Boards

Empire State Development