CASE STUDIES

GTECH Strategies: Growth Through Energy and Community Health
6587 Hamilton Avenue
Pittsburgh, PA 15206
GTECH’s work is the art of tapping into the latent potential of places. — Andrew Butcher, GTECH CEO

GTECH is dedicated to fostering community and growing the green economy by eliminating blight.

CALL TO ACTION | To revitalize communities through creative, productive and inspiring strategies to fuel a prosperous and inclusive green economy. GTECH believes that blight and vacancy present opportunities for equitable, sustainable and innovative urban renewal.

Exemplary Practices Described in this Case Study
- Developing the green economy through revitalization vacant lands and urban blight
- Building coalitions that further green economy investment and policies
- Innovative ways to diversify funding through social enterprise

Unique to this Case Study
- Creating economic and community development opportunity from vacant lands and other urban waste streams
- Building policy, funding and stakeholder frameworks that advance green initiatives

KEY SERVICES AND PROGRAMS
- **Reclamation**: transforming vacant or blighted properties into viable community economic development opportunities by reclaiming sites and employing green redevelopment strategies to revive and recover the land.
  - Since 2007 over 125 vacant lots have been reclaimed in 30 communities around Allegheny County, growing over 15 acres of sunflowers and other crops
  - Since 2007 over 5000 volunteers have logged close to 5,000 service hours
- **Green Economy**: growing the Green Economy by connecting people and institutions, increasing access to opportunity, and establishing a unique model for collaboration to build and strengthen a green workforce.
  - Over 250 youth engaged, including summer work crews employing approximately 18 youth every summer
  - In 2010 GTECH helped create over 125 educational, training, and employment opportunities for traditionally hard to employ individuals supported through education, training and employment opportunities
- **Applied Innovation & Alternative Energy**: creating beneficial impact to the community through innovative social enterprise projects, goods and services.
  - Commissioned leading study on green jobs in the SWPA region; provided technical assistance
to other cities looking to replicate their model
• Launched a new social venture to collect waste cooking oil as an alternative energy feedstock through a public-private partnership

WHAT MAKES THE PROJECT GREEN?
• Vacant and abandoned property is usually full of toxic chemicals and dangerous materials, both of which are addressed through GTECH’s efforts.
• Incorporating more green infrastructure into distressed communities reduces environmental liabilities, and serves as a platform for economic development

CHALLENGES
• Proving how can vacant and blighted land reclamation support larger numbers of viable, living-wage jobs?
• What are the most effective policy and advocacy tools that can support the growth of the green economy and the development of green jobs?

HISTORY AND BACKGROUND

The economic meltdown of 2008 has been the worst since the great depression for most of the country. Pittsburgh, however, saw worse times in the late 70s and early 80s, when 150,000 jobs in steel manufacturing disappeared from the region. People followed the jobs, and ultimately 200,000 residents moved in search of opportunity. The deserted storefronts on once thriving main streets in many small towns along the Allegheny, Monongahela or Ohio rivers give a visual history lesson in the ruthless impact of an industry in decline.

Along with the loss of jobs, and people, came the abandonment of property – approximately 25,000+ lots within the city of Pittsburgh are vacant. Fast forward thirty years, and a group of graduate students at Heinz College at Carnegie Mellon were working on a final project to identify creative strategies to address the blight and abandonment that Pittsburgh had inherited. Chris Koch had grown up in the region, and Andrew Butcher had come for his studies, but they both saw an opportunity to turn something perceived as a problem into an asset. In true “start-up” mode, Andrew and Chris founded GTECH Strategies: Growth Through Energy and Community Health aimed at the intersection of community development and alternative energy. The goal was to identify and implement efforts to make the multiple environmental liabilities into community assets through empowerment and social enterprise.

Vacant land decreases neighborhood value while green spaces improve a community’s conditions. However, “The ROI analysis of the time and energy it takes to revitalize a vacant lot that is full of contamination typically results in the finding that the return will not be worth the investment,” says COO Koch on the opportunity that GTECH creates. “We will keep doing this work until the market for these blighted spaces creates a proposition in which the return on investment does pencil out profitably. Until then, there is plenty of work to do,” adds CEO Andrew Butcher.

GTECH Strategies still bears some of the defining characteristics of a start-up – recognizing new opportunities and tailoring organizational objectives accordingly. This has led to the development of three program areas: Applied Innovation, Green Economy Initiatives and Land Use. In its short history GTECH has already achieved impressive results, such as winning an “Echoing Green Fellowship” in 2008, creating the first Green Jobs Advisory Board in Pittsburgh, forming a partnership with Green For All in 2009, as well as winning an award from The Hitachi Foundation in 2010 for business practices with a social impact. Yet, GTECH has also learned a hard lesson regarding the green economy: for this new sector to flourish, new policies and incentives must be developed to encourage its growth. They have re-organized accordingly, and now their efforts are beginning to bear fruit (or fuel!).
WHAT GTECH DOES: EXEMPLARY PRACTICES

GTECH sees the opportunity to take what many deem worthless and create value for the community and individuals. However, being ahead of the curve (which describes most green economy efforts) means that part of the work is moving the curve to more people through policy and advocacy. GTECH achieves this through three program areas:

• Land Use
• Green Economy Initiatives
• Applied Innovation and Alternative Energy

EXEMPLARY PRACTICES: LAND USE

“We are basically reclaiming what has traditionally been the most precious resource for humans: land.” The reclamation is the first step, as Pittsburgh has over 25,000 vacant lots, most of which are contaminated with toxic elements. Fortunately there are plants, such as sunflowers or members of the Brassica family that actually absorb toxins out of the soil as they grow. This cleansing capacity is important, as most sites contain toxic elements from the buildings and industrial activities that were there previously. GTECH has facilitated or is underway with implementing over thirty “Sunflower Gardens” across southwest Pennsylvania. The cleansing is just the first step. These remarkable plants can then be harvested, processed and combined with waste cooking oil into biofuels that run automobiles. As such GTECH has developed relationships with the local companies and the City of Pittsburgh to decrease the carbon footprint of fleets and increase local economy investments.

GTECH accomplishes this work through partnering with neighborhood organizations who are dedicated to community development as well as with government and educational institutions that care for the land. Growing out of the demand for vacant lot/brownfield reclamation and the need for a coordinating mechanism, GTECH has developed “SPARC” (Seeding Prosperity And Revitalizing Corridors). SPARC brings together the expertise of community groups and environmental groups to achieve the following goals:

• Prove greening as an economic driver
• Act as a service provider and technical assistance partner to community leaders
• Implement green strategies through green job education and entrepreneurial support
• Optimize outcomes and efficiency through collaboration
• Impact environmental and social equity of the communities served

The first pilot for SPARC is in the Larimer neighborhood in Pittsburgh’s east end, which has land vacancy of 50%. Through working with several partner organizations, GTECH is facilitating the reclamation of a blighted property in Larimer’s central district and held an educational and advocacy event on the green economy. The Larimer efforts provided a springboard from which additional funding was secured to implement a full “green” master plan of the community.

GREEN ECONOMY INITIATIVES

GTECH has recognized that even if their efforts led to the reclaiming of every vacant lot in Pittsburgh, the full potential of what the green economy could offer would not be realized. This is partly due to the nascent nature of the green economy: the demand for green products and services has not yet reached potential, due to pricing, lack of consumer awareness/education, and lack of clear markets for realizing their value. Additionally, there is a rich diversity of social and public sector organizations seeking to promote the green economy, which often results in duplicated efforts and diluted impact. To address these issues, GTECH has developed a multi-tiered approach to help grow the green economy in Pittsburgh through: Coordination, Implementation and Research.

Under the coordination umbrella, GTECH convenes or is an active member in the Green Jobs Advisory Board, the Coordinated Weatherization Campaign, the Urban Green Growth Collaborative’s Regional Green Economy Taskforce, and the Job Readiness Roundtable. While each effort has unique individual goals, they all share the objective of enhancing the growth, impact and sustainability of
the green economy in southwestern Pennsylvania.

The implementation effort centers on the following initiatives:

- **The Youth Green Jobs Corps** provides hands-on experience in conservation and exposure to green careers to youth from primarily disadvantaged communities.
- **Leaders for Green Communities** is a two-year leadership program to grow the next generation of leaders who can lead green economic development efforts for the Hill Neighborhood in Pittsburgh.
- “Breaking the Chains of Poverty” is a pre-apprenticeship program run by the Pittsburgh chapter of the A. Philip Randolph Institute in partnership with GTECH and the City of Pittsburgh Housing Authority, that provides 6 weeks of preparatory training for entrance in apprenticeship programs, with a focus on green knowledge (green chemistry and carbon footprint calculation) primarily to residents of public housing units.
- **The Dwayne Cooper Garden of Hope** is an urban farm, community vegetable garden and sunflower garden in the Hill District community. The site is a platform for education and training programs, farmer’s market space, and community events. The location of this site is the former Francis Court public housing community (intersection of Bedford Avenue & Francis Street) owned by the Housing Authority, City of Pittsburgh.
- **The Urban Leadership Institute (ULI)** is a collaborative project led by the Kingsley Association, in coordination with Action Housing, Pittsburgh Community Services, Inc. and GTECH Strategies. The purpose of the ULI is to develop grassroots leaders, engage community residents around environmental issues and increase participation in the Weatherization Assistance Program. The primary goal is to increase participation in Action Housing’s Weatherization Assistance Program in several East End neighborhoods.
- **The Emerald View Park Trail Construction Project** is targeted workforce development program that supports the construction of a 9-mile trail around the Mount Washington neighborhood in Pittsburgh. In collaboration with the Mount Washington Community Development Corporation, the Student Conservation Association, the A. Philip Randolph Institute and One Vision One Life, GTECH Strategies provides the young adults working on the project with information about emerging green occupations, green workforce development and employment opportunities and activities and across the region.

**Research:** GTECH chartered the “Southwestern Pennsylvania Green Jobs Report”, which identifies those green industries and occupations that are likely to grow, with the career ladders necessary to secure employment in the growth areas. Additional reports include an analysis of the energy efficiency and retrofit industry (“From Neighborhood Retrofits to Employment”); “Vacant to Vibrant” on how to reclaim vacant lots; and “Vacant Lot Policy”, a recommendation on policies for dealing with vacant lots. GTECH’s research efforts are meant to impact local and regional policy, as well as provide data to guide community efforts in creating their green vision and strategies.

**APPLIED INNOVATION AND ALTERNATIVE ENERGY**

How can jobs be created from vacant land? What policies will stimulate demand for green products and services? Due to the uncharted territory in which GTECH works, these kinds of questions have led the team to developing expertise that few other organizations have. The Applied Innovation program area helps GTECH develop and utilize that expertise in the forms of social ventures, consulting and replication. Examples include Project ReDirt, which explores the development of inexpensive fabricated soil for urban greening projects. ReFuelPGH is an effort to recycle and reuse cooking fuel as vehicle fuel to reduce pollution and engage youth in thinking entrepreneurially about the green economy. (Note GTECH has two staff cars that run on biofuel: Hans and Frans). ReSeed is a small social venture for GTECH, in which the seeds from plants grown on vacant lots are packaged and resold for further investment in the community.
BUILDING AND MAINTAINING PARTNERSHIPS

The nascent and cross-sector qualities of the emerging green economy make partnership imperative. Some of the key groups with whom GTECH partners include:

ORGANIZED LABOR

Many leaders in organized labor have recognized the importance of the green economy to their membership, and have put resources in place to encourage its growth. GTECH has worked closely with the A. Philip Randolph Institute and the United Steelworkers in the “Breaking the Chains of Poverty” program, including its pre-apprenticeship training.

COMMUNITY AND NEIGHBORHOOD DEVELOPMENT ORGANIZATIONS

The impact of GTECH’s mission happens at the community level, which requires close collaboration with groups dedicated to community revitalization. Organizations such as East Liberty Development Incorporated, The Bloomfield Garfield Corporation, and the Oakland Planning and Development Corporation act to secure a local coordinator to make the revitalization happen on the ground.

LOCAL GOVERNMENT

GTECH’s beginnings and continued growth have been through close partnership with local government departments such as the City of Pittsburgh’s Mayor’s Office, The Pittsburgh Urban Redevelopment Authority, The City of Pittsburgh Housing Authority, Allegheny County Economic Development and the Three Rivers Workforce Investment Board. These partnerships play a critical role in ensuring the permitting and legal aspects of the land-based work is able to happen. For example, GTECH has been engaged in efforts with Allegheny County to develop a regional energy efficiency upgrade program, patterned after Portland, Oregon’s Clean Energy Works program. Elements of the program would include: A financing program that offers homeowners access to low-cost financing for energy efficiency home improvements. A high-road jobs standard agreement to ensure high-quality employment and access for workers from traditionally underserved communities in Allegheny County. Contractor qualifications and standards to ensure quality work, good customer service, family-sustaining wages and encourage local hiring. Standards to ensure contracts go to qualified MWDEEs.

YOUTH AND TRAINING ORGANIZATIONS

Young people are often highly interested in the green economy. Exposure to the many jobs and opportunities of the green economy has the additional benefits of contextual learning and community engagement for youth. Working with organizations such as the Student Conservation Association or the Coro Center for Civic Leadership provides connections to youth for the provision of meaningful experience in green.

Before you start, have you considered...

GTECH began with recognizing the opportunity within a significant issue in the local area: abandoned, blighted and contaminated land. Most urban areas have blighted land, but first consider whether it is at a scale and accessibility that will merit programmatic development and resources. GTECH’s successes have also grown through forming strong partnerships with local and national institutions that have propelled their impact, such as Green For All, Echoing Green and Carnegie Mellon University. Lastly, GTECH has capitalized on the local government and nonprofit sector’s interest and willingness to invest in innovative efforts to revitalize the region. Does your local area have such opportunities on which to build?

ON THE EDGE: ENGAGING IN ADVOCACY TO MOVE THE GREEN ECONOMY FORWARD

GTECH has all the elements of a contemporary version of the American Dream: recognizing opportunity, putting focus and effort into realizing the opportunity and making an enterprise that puts the necessary form together to make such an effort work. The contemporary aspect has two sides: one is that the opportunity that GTECH seeks to realize is one of social and environmental
returns, rather than primarily one of economic returns. The other side, is that along with many other efforts to move into the green economy, GTECH has recognized the need for policies that support the flourishing of green products and services. As Thomas Friedman describes in his book “Hot, Flat and Crowded”, until the appropriate mechanisms are in place for green to be competitive, it will continually fall behind the cheaper and dirtier products and services to which we are accustomed and already have established market share. GTECH has experienced this acutely, beginning with a mission to transform Pittsburgh's vast expanses of vacant/blighted land by creating green jobs that has gradually transformed to include research and policy advocacy. As these new efforts bear fruit, GTECH’s original domain of creating green jobs out of transforming vacant lots will grow as well.

GREEN JARGON

Biofuels: Fuel developed from sources that are grown, as opposed to fossil fuels, which come from drilling and excavation. Biofuels tend to have much lower amounts of carbon output than fossil fuels. Sources of biofuels include sunflower seeds, brassica plants, canola plants and corn.

Carbon Footprint: The calculation of how much a given activity emits greenhouse gases into the atmosphere. Many online “carbon footprint calculators” are available, which ask series of questions about daily activities (distances commuted, kinds of activities engaged in at home, types of foods eaten) and then figures the impact. Green products and services reduce the carbon footprint.