Green Economy Classification System

Industries, Markets, Jobs & Strategies For Sarasota County

Global Urban Development
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1 – Introduction

Introduction

The most basic distinction in the classification system Global Urban Development (GUD) is suggesting for understanding the Green Economy is the distinction between green businesses and clean tech businesses:

- A green business is a business or real estate development that is managed in a way that minimizes adverse environmental impacts, regardless of the products and services that the business offers.
- A clean tech Business is a business that produces an environmental product and/or service.

In the our visit to Sarasota County, September 15, 2010 through September 21, 2010, the GUD Team met with a representative cross section of Green Businesses and Clean Tech Businesses in Sarasota County. We found a significant Green Business Partnership, with 125 certified Green Businesses (approaching 1% of the total of 14,000 businesses in Sarasota County) and a number of individual Clean Tech Businesses with significant growth potentialities.

We did not find a substantial Clean Tech Business Cluster with various well-developed sub-clusters. The largest nascent clean tech sub-clusters in Sarasota County are construction related, and these have been hit hard by the recession.

There has not been enough demand by employers for employees with unique green or clean Tech business skill sets to warrant the Sarasota County Workforce System to develop a specific Green Jobs program.

Because the Green Economy in Sarasota county is at a relatively early stage in its evolution, the classification system that we discuss in this paper should be seen as a way to understand the Green Economy and guide its evolution rather than as a way to classify and organize information and understanding about an economic reality that already exists.

2 – Green Industries

The Sustainability Revolution

Undertaking a sustainable economic development strategy is based on the premise that a sustainability revolution is taking place – from an old economy that is high pollution, waste intensive, high carbon, and ecologically disruptive, to a new economy that is low pollution, energy/resource efficient, low carbon, and ecologically supportive.

Businesses, cities, communities, and regions that lead this revolution will prosper, because, over the long run, the new economy will tend to outperform the old one. Businesses, cities, communities, and regions that lag are in danger of being left behind.

Our time is somewhat analogous to 100 years ago when the automobile industry emerged and everything changed – the way cities and regions grew; the way transportation took place; which industries succeeded and which failed. In the 1920s, the Detroit metropolitan area became a world headquarters of the automobile industry, and one of the fastest growing and most prosperous cities and regions in the world.

This time is also somewhat analogous to the information technology revolution 20 years ago when a complex of related technologies – the personal computer, the cell phone, and the internet – emerged and everything changed again, with Silicon Valley / the San Francisco Bay Area becoming one of the leading economic regions in the world.

This time it is the green industries – conservation, resource efficiency, renewable-energy generation, pollution prevention, and waste minimization and recycling – that are the engines of transformation, and all businesses are coming to use their products and services.

Three Forms of Capital

The sustainability revolution is based on the fundamental recognition that there are three forms of capital essential to the creation of genuine prosperity. In addition to economic capital (financial and manufactured), there are two other forms – natural and social.

•***Natural Capital:*** The economy operates within design limits inherent in the natural environment. If the economy disrupts the environment it disrupts itself, at great financial cost to society and to individual businesses. Historically corporations have often treated natural capital like a "free" asset to be exploited on a first come, first serve basis. As a result, enormous resources have been lost that were once, in fact, provided for free by intact ecosystems. Conversely, the sustainability revolution recognizes the economy's dependence on the environment for fresh air, clean water, climate stability, renewable energy, and a thriving eco-system. Businesses need to derive value from the eco-system without disrupting it. In fact, the human economy is really a subset of the natural "economy" rather than vice-versa. As the sustainability revolution proceeds, true cost pricing and true cost accounting that value the major contributions of the natural world are emerging.

•***Social Capital:*** A prosperous economy depends on a stable society with an effective workforce. The economy threatens its own foundations if it disrupts society by allowing an extreme gap to emerge between the very wealthy few and the rest of the population or by inadequately supporting society's ability to ensure public safety, an effective educational system, a well trained workforce, and quality affordable health care. At the same time, a prosperous economy contributes to a stable society by creating the jobs, the opportunity for productive work, and the income that people need to live satisfying lives. The sustainability revolution recognizes the profound contribution of social capital to a prosperous economy and builds social capital by paying its fair share of taxes and making investments in a healthy society in many other ways.

•***Economic Capital:*** Economic Capital is most widely understood by economists and policy makers. It includes the finance, manufacturing, production, and physical infrastructure (energy, water, transportation, and information). Sustained economic prosperity requires that both the private sector and the public sector operate according to sound financial principles. Private and public players need to live within their means and continuously reinvest in their Economic Capital. The real estate meltdown and the resulting great recession is an example where economic policies and practices led to a destruction of Economic Capital.

Three Forms of Capital in a Business

Any business-person knows that, over the long run, a successful business needs to invest wisely to generate more income than expenses and to grow its capital. If a business lives off its capital, it will eventually go bankrupt. This is just as true for natural and social/human capital as it is for economic capital.

By holding themselves accountable for superior performance in each of these three areas, companies are adopting what has been referred to as a "multiple bottom line" or an "integrated bottom line" business strategy, seeking performance outcomes beyond simple financial ones.

The key premise to this approach is that these domains of business performance reinforce each other – that instead of requiring trade-offs (i.e. having to sacrifice profits to achieve higher environmental performance), an integrated approach improves overall competitiveness (e.g. better environmental performance spurs innovation and creates new efficiencies that improve profits).

"Sustainable development is living on nature's income rather than its capital."

(Bjorn Stigson, President, World Business Council for Sustainable Development)

Defining the Three Forms of Capital in a Business Context

Economic Capital: Company assets that can be readily converted into some form of money (stock; cash; property; equipment; licenses; etc.). Economic capital is developed through the process of customer value creation.

Social & Human Capital: The capabilities and training of employees and employees' relationships with each other. Human and social capital is created through the processes of employee education, specialized training, and team building.

Natural Capital: The natural resources and ecologies that a company depends on for its raw material inputs, as well as the environment in which it and its employees live. Natural capital is created through natural processes of water, mineral, energy and ecological cycles and environmentally beneficial human action.

Connecting The Three Capitals to Core Business Processes

There are opportunities to contribute to “multiple bottom line” capital formation across many different enterprise functions. Serious sustainable enterprises develop differentiated strategies across their key business functions.

Enterprise Function	Ways It Can Help Build the Three Capitals
Mission	What its purpose is; what its long term vision is; how it communicates to stakeholders
Leadership	What it values; who it recruits; how it develops leadership
Marketing and Product Development	Who it sells to; what it sells; how it designs products and services; where it sells
Production	How it produces; how much waste it creates; technology it uses
Human Resources	Who it hires; how many; how diverse; how it develops them; where they are located
Supply Chain Management	What it buys; where it buys it; who it buys from; how it develops its supply base
Facilities	Where it locates; how it constructs its facilities
Finance	Where it borrows money; where it invests funds; how it distributes profits/surplus
Community Relations	Who it gives money to; how it contributes to the community; who they lobby/influence and on what issues

Two Types of Green Economy Businesses

For the purpose of understanding the Green Economy, it is important to make a distinction between businesses that are “producers” of products or services that improve environmental performance (build natural capital), or whether they are “users” of such technologies and services.

“Producers” develop, create and sell environmental products and services – i.e. products and services that are resource efficient and benefit the environment. “Users” seek to embody resource efficient, environmentally beneficial business practices in the way they carry out their operations. The “producers” can be referred to as “Clean Tech” businesses, and the “users” as “Green” businesses. From this perspective sustainable/green real estate developments are a sub-category of Green Business. Optimally, Clean Tech businesses are also Green Businesses.

Sarasota County’s Sustainable Economic Development Strategy will focus on stimulating both Clean Tech and Green Businesses to build Economic Capital and Natural Capital.

Clean Tech Businesses	Green Businesses
Develop and market environmental products and services that are resource efficient and benefit the environment	Manage their business enterprises in ways that are resource efficient and benefit the environment

Segments of the Clean Tech Cluster

There are several ways in which people are beginning to segment the sub-sectors of Clean Tech businesses. The following slides integrate several of these approaches into a taxonomy of increasing levels of detail.

Category	Description	Segments
Clean Energy Sources	*The production, storage and distribution of renewable or low carbon energy sources.*	• Clean energy generation • Energy storage • Energy infrastructure
Energy Efficiency	*Technologies and services that reduce the amount of energy consumed by different sectors of the economy.*	• Building energy efficiency • Appliances and controls • Energy management
Green Production Practices	*Enterprises that produce products and services or use production practices that reduce the consumption of natural resources.*	• Transportation and logistics • Manufacturing and industrial • Materials and nano-technologies • Green construction • Agriculture
Pollution Mitigation, Conservation, and Restoration	*Enterprises and technologies focused on reducing pollution or conserving and restoring natural ecologies.*	• Water and wastewater • Air and environment • Materials recovery and recycling
Support Services	*Consulting and other services that help enterprises develop and implement green and clean technologies.*	• Advocacy and policy • Green business consulting • Green finance • Research and development • Education

The Next Level of Detail

Category	Segment	Sub-segments				
Clean Energy Sources	**Clean Energy Generation**	Distributed & renewable energy	Equipment, controls, software, services			
	Energy Storage	Fuel cells	Advanced batteries	Hybrid systems		
	Energy Infrastructure	Transmission	Demand Mgt.	Smart grids	Power monitoring	
Energy Efficiency	**Energy Efficiency**	Energy mgt.	Building Efficiency	Appliances	Controls & meters	Research
Green Production Practices	**Transportation and Logistics**	Alt. Fuels	Alt. Vehicles	Fuel Efficiency	Logistics	Transit systems
	Manufacturing and Industrial	Life cycle design	Packaging	Smart production	Industrial ecology	
	Materials and Nano-Technology	Nano, bio, chemical and other new, more efficient materials				
	Green Construction	Design & construction	Building materials	Site management	Green Real Estate Dev.	
	Agriculture	Organic farming	Sustainable Forestry	Sustainable Aquaculture	Sust. Food Processing	Local food syst.
Pollution Mitigation and Conservation	**Water and Wastewater**	Filtration	Conservation	Wastewater	Pumping/Metering	
	Air and Environment	Purification	Emissions control	Land conservation	Eco-system regneration	
	Materials Recovery & Recycling	Recycling	Waste Mgt. & Treatment	Recycling machinery		
Support Services	**Advocacy and Policy**	National climate & env. member organizations	Community-based environmental org.	Policy think tanks		
	Green Business Consulting	Env. Law services	Sustainable business consulting	Product branding and marketing		
	Green Finance	Emissions trading & offsets	Green investment funds			
	Research & Development	Federal R&D Institutes	IP commercialization	Private R&D labs		
	Education	Sus. business certificates and degrees	Green career pathways and certificates	Citizen education and outreach		

Green Business Measures

The Sarasota County Green Business Partnership uses a standard set of measures to evaluate the environmental performance of businesses. Green business certification is awarded based on the accomplishment of these standards as appropriate depending on the type of business.

Category	Standards
General	• Designate a responsible group. • Communicate environmental commitment. • Post Green Business Pledge and decal.
Solid Waste	• Complete an assessment. • Establish a recycling and/or composting program. • Implement and paper and other waste reduction programs • Undertake a reuse program. • Establish a purchasing program for recycled, reconditioned, or reused alternatives.
Water	• Implement a facility water conservation program. • Undertake a lawn maintenance and landscaping program.
Energy Conservation	• Have a professional energy assessment performed. • Perform regular heating, ventilation, and air conditioning maintenance. • Implement an energy efficiency program, including use of Energy Star appliances, an Energy Management System, fuel efficient and alternative fuel vehicles, and alternative sources of energy. • Address efficiency in lighting, heating and cooling of air and water. • Undertake an energy conservation program.

3 – Green Markets

Market Observations

The following pages summarize some of the key dynamics driving this new green market. Many of these are related to the emerging connections between environmental solutions and strategies, and private market forces.

It needs to be emphasized continuously that society is at the early stages of a significant transition, and the final shape of this market is far from clear. In addition, many aspects of the transformation are also unclear and in formation. This maximizes the value of resilience and capacity for rapid response and adaptation.

It does appear to be very clear, however, that competitive advantage will increasingly accrue to businesses and communities that take a “triple bottom line” approach – simultaneously building natural capital, social/human capital and economic capital. In particular, resource efficiency will increasingly become a critical competitiveness strategy – and eventually the power of the market will not only be focused on “preserving” resources and minimizing their use, but actually restoring and regenerating the capacity of the planet’s life support systems.

Finally, there is a dimension of this work that is often overlooked and that bears highlighting – and this is the economic development potential of what are sometimes referred to as “sustainability savings” or “green savings.” The combined impact of improved building energy efficiency; reduced water use; more efficient transportation systems; and more compact walkable communities can have a significant impact on household income and broad “cost of living” affordability.

As just one small example, the average annual cost of automobile ownership is approximately $5,000 a year. So being able to get rid of one car is the equivalent to a $5,000 pay raise – a huge impact, especially for low and moderate income households. This extra income in turn stimulates purchasing power in the economy that would otherwise not be there.

Market Observations

Observation	Description
Sustainable Products and Services Create Long Term Growth	The goals of improved environmental performance and energy independence (resource/energy efficiency; alternative energy development; and climate mitigation and adaptation) are driving the development of new products, services, companies, and markets that will outperform their non-green counterparts over the long run.
Sustainability and Economic Development Are Mutually Reinforcing	Leadership on sustainability and regional/global economic competitiveness can reinforce each other rather than cancel each other out. Environmental performance can drive economic prosperity that can be equitable for different groups and places. Many of the specific sustainability strategies (such as clean renewable distributed energy and large-scale building retrofits) have natural economic development potential for stimulating new businesses and jobs.
Economic Benefits Are Key to Long Term Environmental Leadership	To be optimally successful, the goals for improving environmental performance need to be translated into self-reinforcing market dynamics. Sustainability solutions that combine improved environmental performance and economic benefits are the key to successful sustainability strategies.

Market Observations

Observation	Description
Sustainable Real Estate Development Will Bring Comparative Economic Advantage	As energy and natural resource efficiency become increasingly important competitive advantages in regional and global economies, urban sustainability strategies can be integrated with economic development and community development strategies that leverage the competitive advantage of sustainable real estate development.
Economic Benefits Come From Both Enterprise and Job Growth and Reduced Cost of Living	Economic benefits can be realized in two basic ways: 1.Increased participation in the emerging sustainable economy can generate new enterprises, new jobs, and new wealth. 2.The hidden advantages of "urban form" can create significant reductions in the cost of living and the cost of doing business through the integration of community design, energy efficient buildings, and mobility systems.
Economic Development Practices Don't Have to Be Reinvented – Just Refine and Refocus Them	A sustainable economic development strategy can use many of the same best practices as other kinds of economic development strategies – it is just focused on different kinds of technologies, products, processes, companies, markets, and career pathways.

How Big is the "Green" Economy?

A recent (April 2010) report by the US Department of Commerce Economics and Statistics Administration (ESA) conducted a detailed assessment of the size of the green economy. The Measuring the Green Economy report looked at 732 detailed product codes for green products and services. Based on this analysis, they came to the following conclusions:

- Green products and services comprised 1% to 2% of the total private business economy in 2007.
- The number of green jobs ranged from 1.8 million to 2.4 million.
- The services sector accounted for 75% of green business activity; manufacturing for 13%.
- Energy conservation, resource conservation and pollution control accounted for 80% to 90% of green business activity.
- Between 2002 and 2007, the share of green shipments and green jobs in manufacturing remained fairly constant.
- The green economy is in a position to grow quickly, but the relatively small size of the green economy suggests that a majority of the new growth during the recovery will come from products and services outside of the green economy.
- The process for measuring the green economy is far from exact; better definitions and alignment of data sources are needed.

Definition of Green Products and Services

The ESA report defines green products and services as those whose predominant function serves one or both of these goals:

- Conserving energy or other natural resources
- Reducing pollution

These basically are the "sustainable producers." The report does not cover "sustainable production practices" – companies who produce "non-green" products and services in ways that conserve resources.

Out of a total universe of 22,000 product codes, the ESA "conservative" definition covers 497 product and service codes; the "broad" definition covers 732 products and service codes.

Brookings/Battelle Green Economy Index

The Brookings Institution and Battelle are partnering on the development of a system for measuring the green economy in the nation's top 100 metro areas. The system is in development and is scheduled for launch in the beginning of 2011. We believe that this index will become the standard tool for resolving the question for cities of: "How large is my green economy; what does it consist of: and how fast is it growing?"

The report and its data sets will provide the following:

- A sophisticated, accessible definition of the "green" economy
- Data and trends assessment of green jobs for the 100 largest metros covering 2003 to 2009
- Green job categorization according to three levels: seven broad green categories (based on the BLS's research), approximately 40 detailed green segments developed mostly by Battelle, and NAICS
- Ability to differentiate green from non-green activity within industries
- Ability to characterize import versus export orientations by sector, by metro
- Ability to associate occupational profiles and wage levels
- An analysis of green industry clusters, along with preliminary explanations for their location
- Policy recommendations across federal, state, and local levels

Brookings/Battelle Definition of Green Producing Industries

This study will be focused on "green producing" parts of the economy. These are defined in the following way:

"The value added to the economy by the good or service must have a green component, defined as an activity that prevents, limits, minimizes, or corrects environmental damage to water, air, and soil, as well as problems related to waste, noise, and eco-systems. This includes technologies, products, and services that reduce environmental risk and minimize pollution and resource use.

If the good or service does not have a green component but adds value to a good or service that does, it is considered green-producing economic activity if and only if it requires a technique or skill distinct from those used to add value to non-green products."

The categorization of industries is done at two levels: seven broad categories as developed by the BLS; and 36 sub-segments.

4 – Green Jobs, Green Talent

Green Job Definitions

There is no standard definition for what constitutes a green job.

WorkForce Florida's definition (in the box to the right) is a good broad definition. *(www.workforceflorida.com/.../GreenJobsReport_6-17-09_ExComApproved.pdf)*

The Michigan Green Jobs Report (www.mimi.org/admin/.../1604_GreenReport_E.pdf) takes a more narrow approach, addressing jobs in green related products/services in five areas:
1. Agriculture & natural resource conservation.
2. Clean transportation and fuels.
3. Increased energy efficiency.
4. Pollution prevention or environmental clean-up.
5. Renewable Energy production.

The California Green Jobs Guidebook (www.edf.org/article.cfm?contentid=8466)
opts for a formulation somewhere in between, utilizing 12 categories:
1. Low-carbon power and renewable power.
2. Carbon capture & storage.
3. Energy storage: equipment and systems.
4. Energy efficiency and demand response.
5. Green buildings.
6. Transportation.
7. Carbon markets: trading & projects
8. Climate change adaptation.
9. Public sector/government.
10. Consulting & research.
11. Waste reduction & management.
12. Non-profit sector.

"A green job increases the conservation and sustainability of natural resources for the benefit of Floridians. This includes jobs that reduce energy usage or lower carbon emissions, and protect Florida's natural resources. Green jobs should provide worker-friendly conditions, pay sustainable wages, and offer opportunities for continued skill training and career growth."

Defining Green Jobs for Florida, WorkForce Florida, Inc., June 2009

Green Job Definitions (Continued)

The USDOL Occupational Information Network (known as O*Net) has created a classification of green jobs in three categories:

- **Increased Demand** – Existing occupational categories that are likely to experience growth because of increased demand for green products and services. These jobs typically don't require a new set of skills. (An example is a machinist who works in a metal forming company that shifts to making parts for wind turbines.)
- **Enhanced Skills** – Occupations that will require a new set of skills to accommodate the requirements of green markets. (An example could be automotive service technicians who need to learn new skills to maintain electric vehicle.)
- **New and Emerging Occupations** – New occupational categories created by the development of new markets and new firms. (An example would be Biofuel Production Managers – individuals who manage operations at biofuels power generation facilities.)

Another way to think about the issue of Green Job Definitions is to make the distinction between specific green skills and support responsibilities:

Specific Green Skills
- People involved in delivering the specific products and/or services of a Clean Tech company (see page 11 above).
- People with responsibility for the sustainability dimensions of any company, government agency, institution, or not-for-profit.

Support Responsibilities
- Anyone working in any other capacity in a Clean Tech company.
- Anyone working in any other capacity in a Certified Green Business, government agency, institution, or not-for-profit.

Specific green skills and support responsibilities may be involved at any level of a company's/organization's operations, including:
- **Entrepreneurial Team** member in a Green or Clean Tech start-up or early stage company.
- **Senior Executive/Manager**.
- **Employee.**
- **Consultant.**
- **Board Member/Advisory Board Member**.

Green Talent System

Purpose: To stimulate the creation of the trained and job-ready green workforce and the well-educated green entrepreneurial and managerial capacity needed to power the transformation to a sustainable economy.

Description:
A Green Talent System builds Social Capital by aligning the skill needs of the marketplace with talent suppliers through well defined career pathways.

Actions:

- **Green Jobs Analysis.** This analysis reviews current and forecasted green jobs; market segments that will drive demand, and the occupational categories and career pathways that are associated with them. (This includes analysis of the job impacts of local sustainability plans and strategies.)
- **Green Career Pathways.** This action defines the "career pathways" for highest demand green jobs – skill standards; required certifications; and skill development progressions (credit and non-credit). It includes creation of career advising strategies for green careers.
- **Capacity Analysis.** This assessment measures the capacity of regional education and workforce development providers to meet the career pathway demand – both qualitatively and quantitatively. It includes an inventory of all existing programs, including sustainable business education, training and entrepreneurship programs at local higher education institutions.
- **Green Talent System.** Based on current and forecasted green jobs, a green talent system will provide for recruitment of candidates, job readiness and skill training, placement, and post-placement support. Sarasota County has many of the elements in place for a robust Green Talent System, once the green job demand exists.

Green Jobs and Sarasota County

While the Green Economy has not evolved far enough along in Sarasota County to allow for the establishment of a Green Talent System. Workforce development experience has shown that a “Just in Time” workforce training system works much better than a “Just in Case” system. With a “Just in Time” system, workers are not trained for jobs that do not exist now and will not exist in the relatively near term.

Sarasota County is fortunate to have many of the elements in place to move nimbly to create a Green Talent System when it is warranted by the growth of green and clean tech businesses and need for an appropriately educated and trained workforce.

For example:

- Suncoast Workforce offers the full range of workforce training and placement systems.
- State College of Florida is launching an Energy Technology Management degree program, a business incubation program, and is prepared to undertake new curriculum and programs as needed.
- University of South Florida is also establishing a business incubation program and is Co-Chairing the Sustainable Systems Platform of the 5 Year Economic Development Strategic Plan undertaken by the Economic Development Corporation of Sarasota County.
- CareerEdge, in alliance with Suncoast and area funders, is taking a sector based long term career pathways approach to workforce development.

As the Green Economy evolves in Sarasota County, the County will be able to move quickly to implement a full scale Green Talent System. What will be required will be less about providing a precise definition and classification system for green jobs and more about the skill sets and training requirements needed by the particular businesses and industry sub-sectors that emerge and thrive.

4 – Sustainable Economic Development Strategies

Three Broad Categories of Work

Sustainable Economic Development Strategies are composed of three broad categories of work. The three categories of work. They include:

1.Build Local and Regional Demand – Using policies, incentives, investments and behavior changes to build demand for sustainable practices, products and services.

2.Strengthen Local and Regional Supply – Supporting the creation, development and attraction of sustainable businesses and clusters.

3.Engage People in the Sustainable Economy – Building skills for the sustainable economy and engage communities in the process.

Within each broad category of work, there are several different kinds of opportunities. These can be seen as "lenses" – each lens reveals different kinds of Initiatives that Sarasota can pursue.

Some of these will be more important than others. It is important to avoid "lens fixation" where one approach is pursued to the exclusion of others.

Sarasota County's Sustainable Economic Development Strategy will include Initiatives to address the opportunities revealed by these lenses.

There Are Multiple Opportunities Within Each Category

Build Local and Regional Demand

- Sustainable Business Practices
- Green Building Retrofits
- Sustainable Real Estate Development
- Sustainable Infrastructure Investment
- Large Scale Behavior Change

Strengthen Local and Regional Supply

- Clean Tech Cluster Development
- Clean Tech Technology Transfer
- Clean Tech and Green Business Support
- Sustainable Finance
- Sustainable Branding and Marketing

Engage People in the Sustainable Economy

- Green Talent Systems
- Sustainable Community Development
- Sustainable Community Engagement

Build Local and Regional Demand

Opportunity	Description
Sustainable Business Practices	Improving the environmental performance of existing businesses (whether or not they produce an environmental product or service), non-governmental organizations, and government agencies by realizing the potential for implementing significant improvements in energy conservation, resource efficiency, and waste reduction.
Green Building Retrofits	Improving the financial/energy/resource efficiency of existing residential, commercial, and public buildings and building user behavior through both market-based and government assisted programs.
Eco-Smart Real Estate Development	Designing new construction—both infill and greenfield—to be mixed-use, walkable, energy efficient, transit-oriented real estate developments that feature Cleantech and green businesses.
Sustainable Infrastructure Investment	Coordinating investments in municipal and private infrastructure and services (transportation, power, water, waste, communications) in ways that support the development of a sustainable economy.
Large Scale Behavior Change	Motivating citizens at a large scale to reduce their environmental impacts and adopt sustainable buying practices.

Strengthen Local and Regional Supply

Opportunity	Description
Clean Tech Cluster Development	Supporting the development of diverse Clean Tech business clusters that provide products, services, and processes that reduce negative ecological impacts, and improve the responsible use of natural resources.
Clean Tech Technology Transfer	Strengthening links with universities and other sources of R&D that can lead to technology transfer and intellectual property commercialization.
Clean Tech And Green Business Support	Focusing business incubation, acceleration, retention, and attraction resources on establishing the city/region as an optimal place for Clean Tech and green businesses to locate, expand, and grow over the long term.
Sustainable Finance	Expanding existing and creating new potential investment vehicles that seek financial, social, and environmental return by investing in Clean Tech and Green Businesses and sustainable real estate developments.
Sustainable Branding and Marketing	Branding and marketing of the city/region as an emerging sustainable economy seeking to promote Clean Tech and Green Business and sustainable real estate developments within the city/region.

Engage People in the Sustainable Economy

Opportunity	Description
Green Talent Systems	Creating systems and new opportunities for green job development—including education, training, and placement with career pathways—to provide the green workforce, entrepreneurs, and management needed by Clean Tech and Green Businesses, sustainable real estate developments, and non-governmental organizations, and government agencies.
Sustainable Community Development	Creating opportunities for connecting Clean Tech and Green Businesses and sustainable real estate developments led by minorities, women, and underserved communities with the appropriate finance and business acceleration services and engagement of low- and moderate-income employees and residents in saving money through ecological efficiency.
Sustainable Community Engagement	Engaging the talent and creativity of the residents of a city/region in understanding sustainability, participating in the process of building a sustainable/green economy, and making green purchasing decisions.