

Cuyahoga Valley Initiative Idea Package Summary Business Innovation

Imagine new ways to conduct business through optimizing existing industries, introduction of new product families, and development of whole new industries to restore the Cuyahoga Valley.

Introduction

The Cuyahoga Valley is the central spine to the region's economic engine and was the founding landscape for the industrialization of Cleveland and its emergence as a top-ranked city for commerce in the 20th century. This history is at a pivotal transformation into the second industrial movement and determining how the Valley can play a pioneering role in this second wave is yet to be envisioned.



The Center for Regional Economic Issues at CWRU discussed this transformation in “Innovation for Regional Advantage” and synthesized it as follows:

The region's geographic position enhanced by the construction of the Erie and Ohio canals, made Northeast Ohio a desirable location for industry and innovation. As a result, Cleveland experienced a net inflow of talent, skills, ideas, technology, entrepreneurs, and capital investment that lasted until World War II. While Cleveland was certainly more innovative than many U.S. cities in 1880, it did not originate many of the technologies that allowed it grow such as mining, metallurgy, chemicals and rubber.

For that reason, we might think of nineteenth century Cleveland much like the twenty-first century computer and software industry commercialization on the west coast where the ideas were originated elsewhere.

Pressing the analogy between today's high-technology hotbeds and yesterday's Cleveland causes us to ask two questions that are potentially important for public policy. First, what explains Cleveland's emergence as a major city with one hundred years of continuous growth? If the fundamental mechanisms that drive a city's growth are not all that different today than they were yesterday, we don't need to look to west coast or other places for examples for best practice. We can learn a lot from our own history of rapid innovation and growth.

Second, what factors assure continued regional growth as the nation transitions from one generation of technology to the next? Cleveland's relatively weak productivity and per-capita income performance tell us that we failed to make this transition in the middle years of the twentieth century. But we are still trying to make this transition today, and our citizen's demand that we continue to try.

As stakeholders and policymakers determine how this region can be the “hotbed” for the second wave on the industrial revolution, the Cuyahoga Valley should be at the core of those discussions to develop the new business model on which is established upon ecological principles as the driving force of the new economy for the region.

As the formidable Richard Shatten expressed, that the new business model should not utilize “sustainability as a problem to be solved to continue to make cars or clothing and increase our sales and profits.” He suggested to use sustainability as a frame of mind within which “*imagine whole new ways to conduct business, new product families, even whole new industries.*”

This Business Plan Idea Package will determine exactly that; what industries can the Cuyahoga Valley create, how can existing businesses operate differently to expand markets and optimize their performance and what new products, services and technologies can be developed based on the restoration needs of the Valley.

Existing Conditions

History

The establishment of the Ohio & Erie Canal in 1827 prompted the region to become a major economic player in distribution of goods, primarily agricultural at the time. Due to its proximity, the Cuyahoga Valley and Cleveland, became the direct route between the East Coast and the developing Midwest.

The North Cuyahoga Valley Corridor Report discusses the introduction of the industrial revolution for the region. *“The Civil War initiated the transition of the lower Cuyahoga Valley to an industrial center. The new field of oil refining became prevalent in the valley and iron manufacturing expanded greatly in order to meet the military needs, which in turn required construction of additional vessels to transport the ore.”*

This excerpt demonstrates how new businesses flourished in the early days as a result of other businesses to create collaborative energies for the economy. As the region progress, the expansion of markets for millwork, lumber, garments, vegetable greenhouses, brewing and bricks were established.

These industries brought industrialists and entrepreneurs to the region such as John D. Rockefeller. Rockefeller developed the Standard Oil refineries in 1870 and became the national leader in refinery capacity. With this presence brought other technical needs such as chemical plants such as Eugene Grasselli. These inter relationships of business innovations is part of the Valley’s heritage and revisiting these collaborations for the second industrial revolution is surely a strength for the Valley’s business community.



Existing Business Markets

The Cuyahoga Valley is considered the “Industrial Valley” to many as it has served as the central spine of industry for over a century. There are over 7,000 businesses within 1.5 miles and inside the Valley and is clearly a hub of commerce for the neighborhoods, the cities and towns, the region and the Great Lakes.

Manufacturing Hub

The Cleveland region has a long history of manufacturing businesses that established the region in this sector. The Cuyahoga Valley has over 200 manufacturing companies in a variety of industries,

with a large focus on metal working. The major resource in manufacturing for the region is the mid-sized manufacturing companies. Mid-Sized manufacturing companies are larger than the small business shop but smaller than the large conglomerate companies that generate revenue over \$200 million. These companies pose the greatest potential for change and advancement for the region due to their palatable size and complexity and should be evaluated to support what exists as well as strengthen them to sustain their viability for the region as a sector niche unique to the region.



Construction Related Activities

The Valley has historically been the waste dump for construction and debris, fill and other removal or excavation operations. The opportunity to utilize these conditions as a market for green building technologies, practices and employment training is ripe for realization. Some examples are the construction and demolition debris industry is currently undergoing pilot projects on relinquishing waste and reuse strategies. However, the expertise to conduct this reclamation and the resources to determine the best reuse of materials is non-existent. This is an emerging market untapped and can be another example of utilizing our strengths in a new wave of innovation.

Emerging Industry Clusters

The Greater Cleveland Growth Association has identified three clusters of innovation and

technology emerging in the region for the new economy; 1) Biomedical technology and manufacturing 2) Instrument, control, and electronics and 3) Insurance. These three markets are developing fast within the northeast Ohio region and have the local resources and suppliers to be “hot-bed” mainstays for area. The interesting part of these clusters of emerging regional economy, all may have tools that could be utilized developing new markets and products focused on restoration and sustainability for the Cuyahoga Valley.

Additionally, Shorebank Enterprise Group, a non-profit financial institution, has identified industry clusters that “has the greatest potential for creating wealth in our communities and linking the neighborhoods to the growing regional economy.” These clusters are 1) Construction and Rehab, 2)Metal Working, and 3) Health and Medical. Shorebank had identified these clusters by examining “projected industry growth rates, minority business participation, job skills fit with local workforce, employment and wage forecasts, and the economic connections to larger clusters in the region.

Operations

The businesses, largely manufacturing, storage or distribution have been part of the valley landscape over the last century and continue to operate in a traditionally open loop system of requiring and generating enormous amounts of waste and energy. Additionally, due to the historical industrial processing outputs that were less than environmentally friendly, these companies have been overburdened with regulations by the local, state and federal authorities. Understanding these companies energy and waste uses and needs, can provide a basis in which to develop strategies for more efficient business operations and less regulatory requirements.

Restorative Conditions Ripe for Technology

The current conditions of the Cuyahoga Valley and its river will require an abundance of restoration and regeneration techniques to be re-established as a healthy eco-system. The current conditions include such issues as poor water quality, lack of stormwater filtration systems, lack of sedimentation retention or stabilization systems, soil contamination, and no energy optimization

strategy for business operations. Markets that provide innovative techniques for these issues may be able to utilize existing local resources and the current conditions as a laboratory for restorative technologies for both ecological and built system regeneration. One example is the bulkheading of the river. It's current condition is in dire need of rehabilitating. Creating a business to provide an innovative, ecology based solution for a new bulkhead system could be established in the Valley. Hence, the Valley would serve as the headquarters for ecology based bulkhead systems for every navigable river system in the world.

Food Production for the Region

The food industry for the Cuyahoga Valley is typical of metropolitan regions throughout the country; They rely on a national and international food distribution system that involves a large and costly infrastructure organization to operate that does not contribute to the local economy. However, consumer food produce needs within the “city” directly impact the economic capacity of the farmer within the region. Today, the utilization of farmland as “developable land” and not as an economic resource for the region is the current perspective on farmland’s economic commodity.

This being said, the Cuyahoga Valley currently has a number of restaurants, food processing, local markets, institutions that could serve as a consumer base to demand a regional food system that retains the economic revenue in the region as well as expand the markets for distribution and food production to meet these new demands. Utilizing the Cuyahoga Valley as an urban agricultural resource has a potential for a number of reasons related to existing conditions. First, the Valley and region beyond it were considered the Greenhouse Industry center of the country in the early part of the 1900’s. As greenhouses still remain, they are in poor condition and not operable. Providing a new model to reenergize this historical resource could provide a niche market for communities to utilize.

Workforce Resources for Innovation

In their research of industry clusters, Shorebank Enterprise Group discusses workforce development. *“Workforce interventions address a central need of cluster industries. Because competitiveness is increasingly being defined in relation to workers’ ability to learn and apply new knowledge and skills, interventions that succeed in building skills and providing access to talented workers are critical to the success of the clusters.”*

The region is undergoing what some consider a “brain drain” of young minds to foster new innovation industries. Building upon current efforts and resources within the region such as large educational institutions and providing the environment for business innovations as well as quality places to work and live can begin to reverse the “brain drain” in specialized markets and build the workforce at all levels of professions to carry out what is needed for this economy.

The concentration of a diversity of ethnic communities that include European, African-American, and Hispanic involves a history of work skills that have been part of the industrial valley since its beginning. Realizing this diversity and determining how to build upon these assets can create a clear connection of the needs for a workforce and the adjacent communities.

Built for Business

The infrastructure that exists within the Valley today is rarely found in such quantity and land area within a metropolitan area. This infrastructure lays in concert with the landscape and geography that lends itself as a distinguished valley and not just a river system.

Interstate Road Network

The Cuyahoga Valley serves as the crossroads to three interstate highway systems 90, 71, and 80. The interstates are a viable resource for freight transportation that serve the United States and is part of the Ohio road network which has the 4th highest inbound and outbound freight travel in the country. In Ohio, truck freight travel accounts for 60% of all freight coming in, out and through the state. The Cuyahoga Valley is at the center of this network as a state commodity and utilizing it in

a compatible way for Valley businesses will need to be examined. In addition to this is that the State and County have a primary focus to rehabilitate existing structures in the next 10 – 20 years as the present day infrastructure built 40 years ago is deteriorating. One present example of this within the Valley is the Innerbelt Study by ODOT and poses an opportunity to advance road use, integrating ecology and sustaining and strengthening the communities around them for the next wave of road building.

Rail

The Valley is also a major hub for rail transportation where the lines travel to Chicago and New York and beyond. Due to the low cost of truck transportation, rail is largely utilized for transportation needs outside of the state for the national economy. This rail service serves both as interstate transportation as well as distribution to and from the Cuyahoga Valley businesses and needs to be considered in the Valley's future business economy.

Energy

The energy generation for the Valley is enormous, due to the industrial processes and its 24 hour operations. The Valley has a large network of major power lines from the City of Cleveland's own Energy Utility and First Energy Corporation. Currently, there is no use of alternative energy sources being utilized on a large regional scale of the valley, nor an understanding of alternative energy opportunities.

Fresh Water

The Cuyahoga Valley is part of the Lake Erie coastline which frames the 12th largest body of freshwater in the world which maintains an infrastructure of commerce to international and Great Lakes states. Freshwater is increasingly becoming a global commodity that regions are vying for. The Cuyahoga Valley and its proximity to Lake Erie serves as a place to promote this resource as an asset to the region for business innovation and an incentive for energy and infrastructure needs to obtain water resources.

Port Activities

The Cleveland Port is a viable commerce engine for the Cleveland region and the Cuyahoga River plays a major role by its utilization of storage and distribution facilities for port activities. The port is currently assessing its capacity for the future and the feasibility of consolidating resources to open coastline lands for other uses such as open space and a ferry service facility. As the port develops these future plans, there is an opportunity to evaluate the Cuyahoga River Valley's current business plan and how it could be diversified, advanced technologically and consolidated for more efficient uses as well as introducing land capacity for other uses for community prosperity.

The Port is considered a "destination port" due to the proximity of production and consumption of goods within a short distance (75 miles) of its receipt. This also emphasizes the port as an import location with little of goods produced here being exported out via shipping. An asset of the port in Cleveland is shipping being an alternative, cleaner transportation mode to move goods. Determining how to utilize this asset for the Cuyahoga Valley is a viable opportunity in business opportunities.

These port activities largely depend on the river resource as a transportation route for the shipping season that is generally from April to December. This resource however is limited to two major industries: Construction materials, and steel manufacturing, which may limit the river's capacity for expanded shipping markets.

As the steel industry continues to fluctuate and the port and shipping industries largely rely on these resources for their businesses, an opportunity to diversify shipping commodities would create a shipping and port industry that have a variety of economic incomes.

Financial Capital

The investment capital industry of financial institutions for this region is traditionally driven by large investments and how much risk is involved to succeed. Investing capital in the region presently does have some specialized sectors such as biomedical and manufacturing businesses. However, due to the due diligence and risk assessment of these investments and the market comparisons required for investment, restoration and innovative businesses or “new markets” are not considered in the local investment community. Hence, there is a funding gap for unproven markets and research & development below \$1 million. Access to capital will be pivotal to developing new markets and defining innovative clusters of restorative technologies for the Valley and developing new investment funds for such endeavors will be required to realize this region’s potential from the financial institutions.

Components

The Business Plan idea package is framed around three components to realize the inter-relationships and objectives to accomplish a desired vision for the Valley.

I. Business Efficiencies (shared with Working River Idea Package)

A. Locate businesses to best utilize infrastructure

- Minimize transport time

- Economic efficiencies / Decrease negative externalities

- Minimize length of river to be kept at shipping channel depth

B. Least Cost Resource Planning

- Natural Capitalism

- Utilize closed loop processes

 - Energy

 - Material

- Decrease waste of energy / capture energy

- Renewable Energy

 - Solar

 - Wind

 - Biomass

 - Geothermal

VI. Business Innovation

A. Public Policy for Sustainability

- Fiscal Incentives

- Green Building Codes

- Zoning & Subdivision regulations

- Supporting infrastructure (especially high-tech)

B. Encouraging Entrepreneurship

- Business Incubator

- Educational Relevance

- Venture Capital

- Culture for risk taking

- Workforce Development

- Public-Private Partnerships

C. Sustainable business support systems

- Market analysis

- Product / service research

- Operations planning

- Financial planning

- Management

D. Land Development Strategies

VII. Local Distinctiveness (shared with Valley Art & Design Idea Package)

A. V. Healthy, Distinctive Eco-System

- Native Species

- Bio-diversity
- Wildlife Corridors
- Riparian Areas
- B. Cleveland Vernacular
 - Aesthetic approach
 - Dense, mixed-use
 - Innovative architecture- Marriage of industrial design, ecological design, and Cleveland vernacular
 - Diversity (culture, income)
 - 24 Hour city
 - Authentic
- C. II. **Clean River and Tributaries** (shared with Healthy Valley Idea Package)
 - A. Reduce / Eliminate Emissions
 - B. Watershed Rehabilitation
 - C. Public access to river, tributaries and lake

Components of a Business Plan

To develop a new Business Model for the Cuyahoga Valley, it needs to recognize the basic components of the traditional business plan.

These components include:

- Company Description
- Product/Service Provided
- Market Analysis
- Marketing Plan
- Operations Plan
- Financial Plan
- Management
- Exit Strategy

Determining how a Natural Capital and Restoration Economy Approach can be woven into these Business Plan components would provide a template for Cuyahoga Valley businesses and emerging entrepreneurs.

Opportunities

Develop a Business Model that frames the following objectives in a Plan for the Valley:

The establishment of a **Cuyahoga Valley Redevelopment Authority**

This authority would 1) recruit financial partners to gain capital funds for projects and investments within the Valley, 2) Be the decision maker for projects, partnerships and investments for the Valley , and 3) Serve as an advisor and messenger of the Valley Vision.

A development of a **New Economy District** that establishes codes/guidelines based on Natural Capitalism and Restoration Economy principles for entrepreneurship, innovation, and new industries in existing companies. (*Business Plan template*)

Develop a strategy for **Energy and Infrastructure** to lend itself to the new needs of innovation, livability and business activities

Develop the financing structure needed to achieve the Valley Business Plan

Develop a Food System Strategy utilizing existing infrastructure such as green houses , agricultural land, seed stock nurseries, and innovative technologic businesses to support it.

Current Efforts/Activities/Reports

Greater Cleveland Growth Association – Team NEO Project, Project LINC

Case Western Reserve University, Center for Regional Economic Issues

Entrepreneurs for Sustainability

Energy Smart Community Challenge

Cleveland Green Building Coalition/County Solid Waste District – Construction Waste Re-Use Pilot Projects

Innerbelt Study - ODOT

Technical Experts/Partners/Stakeholders

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REI

Cuyahoga County Department of Development

City of Cleveland Economic Department

Maps

1. Industry Map

2. Infrastructure Map

