Competitive Assessment & Target Sector and Cluster Analysis

Review of Documents and Discussion

January 21, 2014 Webinar









A Statewide Comprehensive Economic Development Strategy





About The Webinar

- Purpose of the Webinar: provide an overview of the <u>drafts</u> and solicit input for consideration.
- There will be 30 minutes at end of presentation for comments and questions. They can be submitted by typing in the <u>Question</u> text entry area.
- Additionally, comments can be provided through the end of Friday, January 31 via email to Shelley Pembroke at: Shelley.Pembroke@state.vt.us
- Some of you may have submitted comments prior to this webinar, and we will be taking these contributions into consideration as well in preparing the final documents

Presenters

- Mark D. Waterhouse, CEcD, President
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- Bill Fredrick, President
 - Wadley-Donovan GrowthTech, LLC
- Jim Damicis, Senior Vice President
 - Camoin Associates, LLC
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Vermont CEDS

A Statewide Comprehensive Economic Development Strategy

Competitive Assessment

<u>Purposes</u>

- Meet EDA requirement for "...a realistic picture of the current conditions of the [state]."
- Provide an understanding of Vermont as a "product" in the economic development marketplace
- Identify opportunities for advancing Vermont's economy and weaknesses and issues that should be addressed in the Action Agenda

Competitive Assessment

How We Did It

- Detailed review of 35+ existing plans, strategies and other related documents
- Input from 8 regional meetings
- Input from 2 work sessions with Cabinet representatives
- Input from the CEDS Committee and work groups
- Preparation of Economic Data Analysis
- Extensive additional research from websites, reports, data sources, and others

Competitive Assessment

How Will This Information be Used in Vermont's Action Agenda?

- Allows the consultant team to identify:
 - Primary marketable strengths and opportunities
 - Primary economic development weaknesses and obstacles
 - Issues impacting VT's economic development future
- All of these are considered in identifying the most important EDA projects and Action Agenda Initiatives that will comprise the final CEDS

Competitive Assessment Evaluation Topics

- Location/Market Access
- Transportation
- Utilities & Telecom
- Workforce
- Education
- Business Climate
- Taxes
- Support Services

- Available Sites/Buildings
- Financing & Incentives
- Public Facilities/Services
- Quality of Life
- Workforce Housing
- Image/Visibility/Brand
- Innovation & Entrepreneurship

Competitive Assessment Location & Market Access

- Proximity to the Boston-Washington corridor; within one day delivery
- Proximity to major Canadian markets within one day delivery
- Reasonable air and port access to European and other international markets via Boston and NY/NJ metro area

Competitive Assessment Location & Market Access

- No passenger air service to Boston available
- Long travel distance to most of the country and major markets in South and West

Competitive Assessment Transportation

- VT served by four Interstates and a network of U.S. and state highways for N/S and E/W access
- 16 airports, one primary commercial
- Access to major air hubs via Burlington International Airport
- Burlington International is a Port of Entry
- Gains in passengers at Burlington International since 2008.
- FedEx and UPS service at Burlington International MA and CT provide alternative airport access
- Rail service: Amtrak and six freight short-lines
- Ten public transit providers; increasing ridership

Competitive Assessment Transportation

- Significant deferred maintenance on VT's transportation infrastructure
- Presence of underserved portions of the state may impact business expansion, start-up and recruitment
- Limited night-time airport capacities
- Lack of, or insufficient public transportation in rural sectors

Competitive Assessment Utilities & Telecommunications

- VT is advancing its technology infrastructure
- 2011 initiative for statewide broadband connectivity-ConnectVT: 100% household coverage goal by end of 2013; 99% of state has service
- BroadbandVT.org for interactive map for service options
- Burlington has city-wide access to Internet speeds 100 x faster than the U.S. average gigabit Internet connectivity
- 2012: State ranks high on several broadband measurements: #5 for average speed, 8th in US for adoption at broadband speed; 7th in nation at average peak speed at connection

Competitive Assessment Utilities & Telecommunications

- Three strategies set VT apart from other states
- State reports significant improvement in cell service using microcell service and cell towers in drop zones and transportation corridors: over 88% of state covered
- State providing grants and incentives to carriers to obtain coverage in non-served areas
- Almost universal electric smart grid: state-wide
- VT has the lowest industrial electric rate among public utilities in New England

Competitive Assessment Utilities & Telecommunications

- Significant deferred maintenance on aging water and wastewater infrastructure statewide
- Not clear if state broadband speed definitions coincide with federal standards
- Attainment of goal of broadband pricing to be on par with national urban areas not clear
- Parts of VT have spotty or no cell service due to geology, forests and sparse population
- VT's average commercial and industrial electric rates among public utilities are well above the U.S. average rate
- Commercial rate lower in other New England states

Competitive Assessment Workforce

- VT employment grew 2000-2012, but slower than the U.S. average
- % of residents with a bachelors degrees exceeds the U.S. average
- 2013-2018 growth in 18-34 year olds forecasted
- Job growth in the professional and business services and education sectors 2002-2012
- New residents are young and well-educated
- Internship website, STEM incentive, and Tech Jam for keeping talent in VT

Competitive Assessment Workforce

- Small population limits workforce size and skills
- VT labor is dispersed in rural areas
- VT has a very low unemployment rate
- Employers report difficulty recruiting from outside the state
- VT's civilian labor force has grown slower than the national average, as has its population
- VT has an older population than the U.S.
- Manufacturing jobs have declined since 2002, matching the U.S. rate

Competitive Assessment Education

- VT ranks 5th in elementary and secondary performance with a C+ (*Education Week*)
- VT ranks between 4th and 6th in 4th and 8th grade reading and math achievement (*Education Week*)
- VT ranks 1st in high school graduation (Education Week)
- There are 23 colleges and universities in VT offering all degree levels

Competitive Assessment Education

- VT ranks 42nd in *Education Week's* Transitions and Alignment Policies
- VT ranks 30th in Education Week's Standards, Assessments and Accountability ranking
- VT ranks 30th in *Education Week's* ranking of the efforts to improve teaching
- 73% of VT schools failed to meet NCLB targets in 2013
- 69% of 11th grade students below NECAP proficiency level in science 2012-2013 school year

Competitive Assessment Business Climate

- VT ranks well nationally on broad-based climate indices
- Burlington has been named a "new type of growing city" by The
 Atlantic, along with Sioux Falls, Asheville, Flagstaff, Bend, Missoula,
 Santa Fe and Duluth
- Burlington named one of the 10 most creative up-and coming hubs in 2014 (Techie.com)
- Burlington ranks 38th on *Lumosity* "100 smartest cities" report
- Burlington called VT's Silicon Valley by The Atlantic

Competitive Assessment Business Climate

- VT ranks poorly on national climate ratings focusing on tax cost and regulation
- Act 250 is seen by the economic development community as overly restrictive to development and job creation, adding time and cost to projects

Competitive Assessment Taxes

- Low sales tax burden 13th lowest nationally according to Tax Foundation
- Low to moderate tax rates for new call and distribution centers and new labor-intensive manufacturing businesses

Competitive Assessment Taxes

- High burden based on commonly cited measures
 - High overall state and local tax burden 10.10% according to the Tax Foundation, ranking the state 13th highest in the country. Nationally the burden is 9.9%.
 - High burdens on major tax categories Vermont ranks 45th or higher for Corporate Tax, Individual Income Tax, and Property Tax based on Tax Foundations' Business Climate Measures. (A rank of 1 is more favorable for business than a rank of 50).

Competitive Assessment Support Services

- Most support services required by businesses (e.g., legal, accounting, marketing, shipping) available in VT urban centers or nearby
- Well-integrated network of entrepreneurship assistance providers, including some specialized
- State ED website serves as a one-stop portal to most entrepreneurial support services

Competitive Assessment Support Services

- Uneven availability of services and expertise in different parts of state
- Publicly funded entities seeing shrinking allocations
- Forestry and forest products sector is under-resourced for technical assistance and peer support

Competitive Assessment Available Sites & Buildings

- ACCD Commercial/Industrial Site Locator easy to find and navigate
- Good supply of available buildings, particularly for small and mid-size businesses
- Good mix of properties for sale and lease

Competitive Assessment Available Sites & Buildings

- ACCD Commercial/Industrial Site Locator does not include many available properties
- Small supply of available sites
- Some regions with very limited property availability

Competitive Assessment Financing & Incentives

- Full array of support programs for funding and/or technical services to assist small and expanding businesses
- Programs aimed specifically at workforce development Vermont has versatile programs including those programs for targeted sectors and a mix of grants and tax credits
- Programs and funds to provide support for strengths which are unique to Vermont – i.e. Working Lands Enterprise Fund
- EB-5 Program Vermont has become a national leader in the use of the EB-5 program to increase investment. Note this is used primarily for larger projects/companies/developers

Competitive Assessment Financing & Incentives

- Only a few programs to assist and encourage collaborative R&D and commercialization, particularly larger-scale initiatives
- Additional funds and coordination needed to continue/expand direct grant programs and assistance

Competitive Assessment Public Facilities & Services

- Vermont in 2012 was the 2nd safest state in the nation in terms of homicides and other violent crimes
- Most communities served by Solid Waste Management Districts and primary care health professionals

Competitive Assessment Public Facilities & Services

- Many Vermont municipal sewage treatment systems are aging and subject to leak and overflow, with limited funding for repairs and replacement
- Most Vermont towns do not have their own police forces, relying on State Police Force, which has only 327 officers

Competitive Assessment Quality of Life

- Vermont ranks high in quality of life issues in many studies and surveys
- The collective quality of life is stated in values of community, environment, hard work, independence, privacy, small scale and importance of the state in contributing to their quality of life

Competitive Assessment Quality of Life

- Fragility of the state that can be harmed by energy, economic, or ecological problems that originate far beyond the borders of the state.
- Continuing tension between desire for a thriving economy with good jobs and modern amenities, and desire for the preservation of traditional working landscape and small towns.
- People at or below the poverty level and having difficulty do not have the "same quality of life" as others earning a better wage.

Competitive Assessment Workforce Housing

- VT has a state level policy commitment to affordable housing
- The state has a network of experienced housing development/management nonprofits committed to affordable housing
- NMTC have been used to create some new housing units in existing community centers

Competitive Assessment Workforce Housing

- Dominant older housing stock
- High cost of newly constructed homes for VT residents
- Very low rate of new housing construction
- Severe affordable rental and owner occupied housing shortage for VT wages
- Adverse impact on cost of housing from second home owners in parts of state
- Housing subsidies shrinking for low-income households

Competitive Assessment Image/Visibility/Brand

- State government has focused on the Vermont Brand and devoted resources to it on an ongoing basis
- A unified brand identity should allow for better coordination of marketing efforts and the State of Vermont should be able to compete more effectively with larger, better-funded marketing efforts of other states.

Competitive Assessment Image/Visibility/Brand

<u>Our Findings – Primary Weaknesses & Issues</u>

- Unified branding does not appear to be happening yet
- There is an unrealistic expectation of a Vermont utopia
- The overuse of bucolic images may convey the image of a backwater place lacking in economic opportunity

Competitive Assessment Innovation & Entrepreneurship

Our Findings – Primary Strengths & Opportunities

- Since 2004 VT ranks higher than U.S. and NE on entrepreneurial climate (Kauffman Foundation)
- 2012: VT ranked 16th best on the U. Nebraska State Entrepreneurship Index
- VT ranked 4th highest per capita in 2012 for patents per 1000 residents
- VT outperforms the U.S. in academic R&D as a percent of gross state product
- STEM Incentive Program

Competitive Assessment Innovation & Entrepreneurship

<u>Our Findings – Primary Weaknesses & Issues</u>

- IBM a major contributor to statistics
- Performed R&D as a percent of gross state product is below U.S and New England averages
- Low private sector funded R&D
- Academic R&D heavily skewed toward life sciences (via UVM)-a mismatch with VT industry
- Innovation assets and performance centered in Chittenden region;
 Geo-centered
- Only a few incentives available to assist start-ups, R&D and entrepreneurs

Competitive Assessment

Our Findings – What Makes Vermont Different?

- Well-developed support networks for early stage entrepreneurial ventures: Vermont's "grow your own" philosophy has spurred business innovation
- Early leadership in developing support and marketing systems for sustainable "working landscape" enterprises
- Environmental reputation makes Vermont a Mecca for "green" business
- Human-scale institutions and government: businesspeople have someone to talk to about concerns
- Reputation as a laboratory for economic (e.g. single-payer health care) and social (e.g. civil unions) innovation attracts well-educated, creative entrepreneurs





<u>Purposes</u>

- Meet EDA requirement for identification and analysis of economic clusters
- Provide an understanding of Vermont's current economic base and potential clusters
- Provide input for the identification of Initiatives that will comprise the Action Agenda
- Not meant to encourage disinvestment in clusters or sectors not on list

How We Did It

- Identified opportunities based on economic analysis of:
 - Establishments
 - Employment
 - Occupations & Wages
 - Input from regional meetings, research, Economic Base and Competitive Assessment findings
- Grouped related sectors into clusters based on industry practice and past reports
- Conducted additional analysis of economic variables (i.e. 5 and 6 digit NAICS Level)
- Conducted market research to understand recent and emerging trends
 - IbisWorld
 - Past reports and studies
 - Web research



How Will This Information be Used in Vermont's Action Agenda?

- Retention and expansion of existing business sectors/clusters
- Support for business start-ups in existing or emerging sectors/clusters
- Targeting of investment for highest ROI recruitment sectors/clusters
- Identify Action Agenda Initiatives that support all of the above

- Energy
- Food Production and Value Added Processing
- Forestry and Wood Products Manufacturing
- Health Care and Life Sciences
- Information Technology
- Professional and Technical Services
- Manufacturing and Aerospace
- Tourism and Culture
- Business, Finance, and Insurance
- Being Explored Further Private Education

Energy – Primary Strengths & Opportunities

- Reputation for high-quality, natural resource-friendly products.
 Environment and lifestyle attractive to green entrepreneurs
- Concentration of Environmental Consulting Services
- Historic and projected growth for cluster as a whole. Higher than average wages. Recent successes in securing venture capital for green energy
- National growth in Environmental Consulting Services and Scientific and Economic Consulting, both have relative low barriers to entry and potentially high industry profit margins

<u>Energy – Primary Strengths & Opportunities – Con't</u>

- Research and innovation within the bio-fuel industry and access to natural resources to support the industry
- Clean Energy Development Fund
- Continued increase in environmental regulations anticipated nationally and globally, which will increase demand
- State intends to grow the use of renewable energy setting a goal of 90% of the state's energy coming from renewable sources by 2050

<u>Energy Cluster – Primary Weaknesses & Issues</u>

- Disconnect between skills of Vermont college graduates and the needs of companies, future occupation demand exists for middle skill (more than high school but less than bachelor's) and for occupations requiring bachelor's and beyond.
- Closure of Vermont Yankee and impact on workforce and energy production
- Need for more R&D funding/performance to support for innovation and commercialization

<u>Food Production and Value Added Processing – Primary</u> <u>Strengths & Opportunities</u>

- Good fit: brand, values, image and overall historic workforce and networks
- Farm to Plate Network and Vermont Food System Atlas
- An increase in demand for organic, healthy, and locally produced goods has supported the growth of niche food producers throughout Vermont
- Greenhouse industry could be a potential target for the State
- "Made in Vermont" brand is recognizable and could lead to increased pricing power and profit
- Access to raw materials for a variety of food production and value added processing.
- Historic and projected growth in the cluster particularly in beverages such as Coffee and Tea Manufacturing, Breweries, and Wineries
- Continued support of food production entrepreneurs throughout the state through incubators, test kitchens, and co-op facilities

<u>Food Production and Value Added Processing – Primary</u> <u>Weaknesses & Issues</u>

- Cost barrier of locally produced, small-scale production
- Climate change and extreme weather
- Increasing centralization of the food industry
- Concentration of industry growth and employment in a few specific companies on the food manufacturing side and concentration of dairy acreage on the agriculture side
- Low wages and seasonal work can make it difficult to fill positions.

Forestry and Wood Products – Primary Strengths & Opportunities

- State's reputation for high quality goods and craftsmanship
- 4.35 million acres classified by USDA Forest Service as timberland or land that
 is fertile and accessible enough to produce wood as a crop
- Increased demand for environmental friendly, "green" wood products
- Recovery in residential housing construction will increase demand for household furniture and construction products and materials
- High concentrations in Nonupholstered Wood Household Furniture
 Manufacturing, Hardwood Veneer and Plywood Manufacturing
- Vermont Wood Marketing Council has plan in place promoting the brand of Vermont wood products and creating a business friendly environment

Forestry and Wood Products – Primary Weaknesses & Issues

- Overall declining industry with decreasing employment and low wages
- Competition from other less expensive products such as plastics and rubbers
- The growing prominence of import penetration, specifically from emerging economies (e.g. China), has further hampered the industry's growth prospects
- More investment in R&D and innovation needed by private sector, high energy costs, high insurance costs, and retention and recruitment of employees
- Lack of workforce with necessary skillset

Health Care and Life Sciences—Primary Strengths & Opportunities

- The health services component of this cluster is large in terms of employment, has grown historically and is projected to continue to grow
- The industry is seeing both consolidation in terms of health systems and facilities but also growth of niche businesses
- Pharmaceutical Preparation Manufacturing and Medicinal and Botanical Manufacturing are two industries that have grown over the last 5 years and are projected to continue to grow through 2023
- Aging population will require increasing amount of health care services required
- Tele-medicine represents opportunity for growth with cross-section of IT and health services

Health Care and Life Sciences – Primary Weaknesses & <u>Issues</u>

- Historic and projected employment increases will challenge the workforce system to provide quality workforce
- Demand for skilled employees will continue to increase and educational systems should be prepared to meet that demand
- Unless there is a significant shift in the type and amount of R&D being performed it is unlikely that Vermont will be able to compete with other areas in Life Sciences fields

<u>Information Technology– Primary Strengths & Opportunities</u>

- Good fit with Vermont export oriented, supporting small independent businesses, entrepreneurs, contractors, and consultants
- Low barriers to entry low capital requirements
- Significant improvement in the availability and quality of broadband through ConnectVT
- Strengths in Custom Computer Programming Services and Computer Systems Design Services
- Higher than average wages with higher education degrees (associate's and beyond) typically required

<u>Information Technology– Primary Strengths & Opportunities Con't</u>

- Continued growth nationally and globally projected IT Security, Software and Application Development, Enterprise Software, and Cloud Computing
- IT intersects with other sectors including telehealth, health records, and business analysts
- Recent success in accessing venture capital media, electronic, internet, and ecommerce
- Vermont Center for Emerging Technologies (VCET) provides support such as start-up, incubation, acceleration
- Recent initiatives have developed detailed goals, findings, and recommendations

<u>Information Technology – Primary Weaknesses & Issues</u>

- Finding qualified workforce is a challenge
- More opportunities needed for preparing K-12 students with critical skills needed for college level study and career preparation in the fields of computer science and hardware/software engineering
- Made in Vermont brand of quality in agricultural, food and recreation has not translated to quality brand for tech sectors

<u>Professional and Technical Services – Primary Strengths & Opportunities</u>

- Small, flexible firms
- Export services and import wealth
- Telecommuting and remote work makes it possible for Vermont residents to earn a higher income and attract young professionals to the State
- Concentrated industries with projected growth: Engineering Services, Environmental Consulting Services and Graphic Design Services. All are good fit for the State and could attract young professionals and create opportunities for trailing partners

<u>Professional and Technical Services – Primary</u> <u>Weaknesses & Issues</u>

- Unreliable cell service and broadband access in parts of the state can make it difficult for telecommuting and working remotely.
- For growth within companies to occur, workforce development is needed to help fill technical positions that demand higher educational attainment
- Access to major airport and passenger rail is a constraint in part of the state

Manufacturing and Aerospace – Primary Strengths & Opportunities

- Nationally, manufacturing is making a resurgence through more highly-skilled manufacturing operations that require a technically savvy workforce - Nationally, growth in re-shoring and on-shoring increasing activity in U.S.
- Higher than average wages
- The "Semiconductor and Circuit Manufacturing" industry has a high location quotient that is related to the IBM operations in Chittenden County. This industry is strong in Vermont so opportunities do exist, especially as more consumer products require higher and higher levels of technology, such as smartphones and personal vehicles
- The Vermont Aerospace and Aviation Association has been working to develop the State's aerospace economy through efforts in network development and business attraction and retention
- Detailed strategies developed by Vermont Advanced Manufacturing Partnership to support and grow manufacturing in the State

Manufacturing and Aerospace – Primary Weaknesses & <u>Issues</u>

- Historic job losses have led to perception that industry offers few future employment opportunities, yet lack of skilled workers persist
- Increased competition from global producers will make it difficult for Semiconductor and Circuit Manufacturing in the United States. The price of these products is expected to weaken, likely causing a reduction in the number of industry operators
- Manufacturing companies that rely on research and development, such as Medical Device Manufacturing, prefer to locate near major metropolitan areas (access to workforce, infrastructure, investors and other support services) which may make it difficult for Vermont to compete

Tourism and Culture-Primary Strengths & Opportunities

- Potential to grow the recognition for non-winter tourism in Vermont including kayaking, fishing, hunting, mountain biking, etc. Natural resources recreation that is non-disruptive to the natural environment
- Decreased distance and length of vacations people are taking
- Adventure races and other recreation events could draw people to Vermont throughout the year
- Many recreational assets available in Vermont are considered to be "gateway activities", which
 are those activities that are affordable and accessible and tend to lead to participation in other
 outdoor recreation such as hiking, camping (car, backyard, RV), bicycling, fishing, trail running,
 etc.
- 49% of New Englanders over the age of 6 participate in outdoor activities
- Food related tourism can benefit both food/agriculture and tourism industry
- Tourism services, amenities, and facilities benefit out of state tourists as well as residents

Tourism and Culture- Primary Weaknesses & Issues

- Low wages, seasonality, and high turnover of occupations in this cluster
- Climate change and extreme weather impacting tourism facilities and consumer preferences
- Change in consumer preferences away from golfing and skiing towards less cost prohibitive activities
- 37% of Americans over the age of 6 do not participate in outdoor activities due to a lack of interest.
- 45% of youth ages 13 to 17 do not participate in outdoor activities because of a lack of interest

Business, Finance, Insurance – Primary Strengths & Opportunities

- Reputation as a competitive location for captive insurance industry
- Ability to work with captive insurance industry to provide a business friendly climate that is able to change with the industry over time
- Premium tax credit for new captive companies and other incentives for captives to locate in Vermont. Ongoing attraction and retention efforts geared towards developing the industry in Vermont

Business, Finance, Insurance – Primary Weaknesses & Issues

- No real competitive advantage in the cluster other than in captive insurance. The location quotient analysis did not identify any industries with extremely high concentrations of employment
- Increasing use of online banking and decreased demand for in-person operations may lead to a decrease in employment

<u>Our Findings – What Makes Vermont Different?</u>

- National leader in
 - Environmental and renewable energy consulting services
 - Green energy development, design and implementation
 - High value-added specialty food and beverages
 - People-powered outdoor recreation
- Strong culture of entrepreneurship and innovation
- Image as a state that focuses on quality

Question and Comment Period

- Please type questions in the <u>QUESTIONS</u> text area to the right and we will answer as many as possible
- We will keep a list of any questions we do not answer and will respond or incorporate as appropriate

Next Steps

- January 27th Workshop at Sugarbush, Warren
 VT to work on Action Agenda Initiatives
- Completion of solicitation and ranking of EDA Projects
- Preparation and review of draft CEDS
 Document combining all prior work

More Questions

Please send additional questions to:

Shelley Pembroke at

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Thank You!