

# BUFFALO'S

## Path to Renewal



### Accelerate

growth of the highest potential advanced manufacturing segments and improve competitiveness



### Become

a leading hub for health and life sciences innovation and commercialization



### Create

a compelling, coherent value proposition to drive tourism growth



### Improve

regional innovation performance and attractiveness to entrepreneurs and investors



### Address

gaps in workforce skills to meet current and future market demand



### Invest

in next-generation infrastructure and physical revitalization



The Buffalo Billion Investment  
Development Plan



# Informing Our Decisions

Our assessment of the market was informed by three principles that govern economic development in a global era. First, economies are now knowledge-based, innovation-driven, dynamic and global. It is not enough for a region to lure a few marquis firms and hope for the best. The critical competitive advantage now is a high-value ecosystem of talent, ideas, capital, and infrastructure. Second, for these reasons, metropolitan regions are becoming the primary competitive units of the global economy. Think Singapore, Silicon Valley or Cambridge – national or state identity is less relevant than the competitive ingredients and productive intimacy a metropolis offers. Third, regions wanting to flourish must nurture the building blocks of dynamic enterprise: human capital; innovation and entrepreneurship; efficient infrastructure and livability, and sound public institutions.

Buffalo Niagara’s economy is big but underperforming. Its \$57 billion in output and 538,000 workers puts it in top 50 of US metropolitan areas. But despite above-average productivity levels, Buffalo Niagara has lagged peer regions and the US in the last decade when it comes to employment, household income and average wages. Much of the gap can be traced to a serious decline in sectors that export from the region -- a phenomenon afflicting older industrial cities across the US, which now face robust competition abroad. Since local population and consumption isn’t growing quickly, however, any serious strategy to renew Buffalo Niagara must involve boosting exports to fast-growing global markets.

The most promising industry clusters have a strong, concentrated presence in the region, are growing locally and nationally, and exhibit competitive advantage through customization, product quality, or process innovation. Importantly, they also serve large global markets with high growth potential.

## Growing Sectors

Three clusters in particular stand out: advanced manufacturing, health and life sciences, and tourism.

**Advanced manufacturing.** Despite erosion in recent decades, manufacturing remains the third-largest employment sector in the Buffalo Niagara economy, representing 50,000 employees, \$6.3 billion in GRP (11% of the total) and the area’s two largest export sectors. And exciting growth potential exists in the materials, machinery and metals and chemical segments, serving key industry sectors such as renewable energy, medical devices and pharmaceuticals, where Buffalo Niagara has a well concentrated base of firms and workers. Ceramics materials manufacturing is notable here, with unusually strong concentration in the region, and prospects for nearly 7% annual growth through 2020. It also benefits from a high-performing local base of chemicals suppliers, as well from university based research at University at Buffalo and Alfred University that should spur advances in clay, rubber and plastics. Machinery and chemicals manufacturing (already the region’s largest export sector) feature superior productivity and appear poised to build on this edge.

Fully capturing the advanced manufacturing opportunity will require further productivity boosting-innovation in materials, more skilled manufacturing workers and improved export capability.

**Health and life sciences.** Retail care is a significant sector in the Buffalo Niagara region, with 28 hospitals and 74,000 employees. Since healthcare delivery (with the exception of medical travel) is not an export sector, it has inherent growth limits without population

growth. Yet strong local market demand helps support the tradable parts of health and life sciences, as the region's patient populations are critical to the R & D that bolsters medical manufacturing and life sciences. The medical device and pharmaceutical segments show particular promise because of their deep presence in the region, global demand for their products, and impressive research base. The region boasts \$350 million worth of National Science Foundation academic R&D activity (two thirds of it devoted to life sciences), housed primarily at the SUNY Buffalo campuses, placing it among the top third of the 100 largest US metros in academic research expenditures. The region's pharma sector also boasts a 40% productivity edge versus similar sectors in the U.S.

Capturing this opportunity will require a turbocharged bench-to-business effort, because patent production, commercialization, venture funding and start-ups have not kept pace with peer regions elsewhere. The fact that the region has drawn less than \$5 million in venture investment annually suggests the scale of the problem -- and the opportunity. Fostering a dynamic, innovative, entrepreneurial "best in class" environment for the health and life sciences sector will also help Buffalo Niagara garner more of the talent it needs.

**Tourism.** Niagara Falls attracts 8 million visitors annually, more than most U.S. national parks, and nearly double the draw of the Grand Canyon. Buffalo Niagara can build on this extraordinary pipeline to create opportunities for other regional attractions. Two segments of the global tourism market show early promise for growth: the culture/heritage segment (e.g., historic sites, museums) and the "soft" outdoor adventure segment (e.g., biking, hiking/backpacking, nature tours).

To capture the opportunity, the region's tourism "product" must improve through more innovative programming and attractions. In addition, the number and quality of amenities near Niagara Falls hamper the region's allure. As a result, tourists stay overnight less and spend less per person on visits than at similar destinations. The tourism sector also suffers from fragmentation across local authorities, and inadequate marketing investment. The region's \$3.25 million annual tourism marketing budget half that of Cincinnati (\$6.7 million) and a third of Pittsburgh (\$11.1 million), both of which lack a major tourism asset like the Falls. An enhanced regional marketing effort will connect Niagara Falls to the many cultural and heritage destinations in Buffalo and throughout the region.

## Reinforcing the Core

Beyond acting to seize growth opportunities in these specific sectors, Buffalo Niagara will need to improve the critical productivity enablers of human capital, innovation, infrastructure, and governance. The region lags its peers today when it comes to educational attainment; attracts below average in-migration of educated workers, and (as with much of the US) often faces a mismatch between open jobs and workers' skills. Buffalo Niagara also faces challenges in effectively putting all its talent to work; minorities have low educational attainment and high unemployment, and face geographic and transport barriers to taking jobs. And the region's highly fragmented governance results in costly and duplicative service provision. No regional planning authority exists, and each of the region's 64 municipalities wields independent planning powers, leading to inefficient and piecemeal physical development.



## A Call to Action

# Buffalo Niagara is a region in transition.

Western New York was a leader in America's industrial economy – a major center of heavy manufacturing and a hub for transportation and logistics. However, as the economy has changed, our strengths have not evolved to preserve growth.

### Renewal will not be easy.

Our population, employment, and GDP have all declined over the last 40 years – leaving a population closer to retirement than the average U.S. city and a persistently high unemployment rate. Like most cities in our region, our manufacturing base has substantially eroded over the last three decades, falling from 26% of regional GDP to 9%. As a result, the economy today produces neither the quality nor the volume of jobs necessary to sustain a renewal. In addition, Buffalo is now the sixth most segregated city in the country, and our African American and Hispanic populations are especially hard hit with unemployment rates more than twice that of the rest of the population.

### Growth will require us to address global trends.

While the U.S. holds a comparative advantage globally in knowledge economy sectors (e.g., technology, advanced manufacturing, professional services), it is faring poorly in sectors dominated by low labor costs. Economists in the U.S. now largely agree that productivity and economic growth are dependent on the quality of human capital, the penetration of technology, the degree to which an economy fosters innovation, and an economy's ability to translate basic R&D into commercial enterprises. To successfully renew Western New York, we must embrace these changes, not resist them.

### Fortunately, we have significant assets to grow.

Our enduring capabilities in advanced manufacturing, our leading regional health and life science presence, and the region's world-renowned tourist assets that draw millions of visitors every year can, with investment, be anchors for our economy. Together with high quality of life, modern infrastructure, and low property prices, these assets provide the necessary underpinning for renewal.

### Our moment is now.

In an extraordinary recognition of our potential, Governor Andrew M. Cuomo made a historic pledge of \$1 billion in New York State funds to attract complementary, private investment and ignite growth in the region. This commitment is unique in the nation. We will take full advantage of this once in a lifetime opportunity and create an approach for sustained and purposeful transformation of the region. Through Governor Cuomo's vision, our Regional Council of community members from the public, private, and nonprofit sectors is working together with New York State to lead our return to growth. We will invest in high growth areas and the economic enablers required to help them succeed. We will need institutional capacity, civic will, and investment capital. Fortunately, our region has all of this, and more.

# Which Strategies and Initiatives can Buffalo Employ to Seize Growth Opportunities?

The assessment of Buffalo Niagara's **sector assets** and core **cross-sector enablers** leads to **six high-level strategies** specifically designed to leverage the region's unique assets to move the region forward on a path to next-economy growth.

The strategies are mutually reinforcing, and in combination provide a framework that encompasses, contextualizes and aligns existing efforts and offers guidance for development of future economic growth initiatives.

## PHASE 1 STRATEGIES

### SIGNATURE INITIATIVES

Initiatives have been identified to begin the plan's implementation.

## STRATEGIES for Sustainable Economic Growth

Each initiative is a concrete enterprise that will provide specific products and services to meet needs or leverage opportunities identified through the assessment of the region's economic performance. Signature Initiatives would not supplant existing efforts already underway in the region, but rather augment that ongoing work where it exists.

### SECTOR STRATEGIES

*with the potential to form the foundation of Buffalo's next economy and to drive economic growth, employment, productivity and wealth*



#### Advanced Manufacturing

Buffalo Niagara Institute for Advanced Manufacturing Competitiveness



#### Health | Life Sciences

The Buffalo SPARC - Science Productivity and Research Catalyzer



#### Tourism

The Downtown Niagara Falls Challenge

Niagara Falls State Park Investments

Enhancing the Region's Marketing Efforts and Investing in Buffalo's Cultural and Heritage Assets

### CORE STRATEGIES

*that will support Buffalo's new economy across high priority sectors*



#### Entrepreneurship

Buffalo Breakthrough Business Challenge (B3C)



#### Workforce

Buffalo's Skills Partnership

Rapid Right Skilling for Buffalo

Say Yes to Education



#### Revitalization

The Better Buffalo Fund

## SECTOR STRATEGIES



### Advanced Manufacturing

#### ASSETS

3rd largest employment sector, with 50K employment and \$6.2B GRP (11% of total)

Chemicals and machinery manufacturing account for the two largest export sectors and 33 percent of total

Shows specialization and projected growth versus nation in subsectors: materials, metals, machinery, food processing, health

Strong university research (University at Buffalo, Alfred University) expertise in materials and ceramics

#### CHALLENGES

Steady decline in jobs (-5% per year), GDP (-1.7% per year) and productivity, all trailing the US average

Majority of manufacturers cite local talent pool as not meeting needs in just completed survey

## → STRATEGY 1

Accelerate growth of the highest-potential advanced manufacturing segments and improve manufacturing competitiveness sector-wide

Drive **innovation** through applied and contract research, shared testing facilities and enhanced technology transfer that enables new product and process development in local sector assets such as materials, metals, machinery, food processing and medical (pharmaceuticals and devices)

Facilitate **export growth** by leveraging the region's proximity to market opportunities in the Golden Horseshoe region and throughout Canada, and providing technical assistance to small and medium manufacturers that do not currently access international markets

Improve **workforce readiness** by training new workers and up-skilling incumbent workers to meet manufacturers' current and future labor needs

## SIGNATURE INITIATIVE

# Buffalo Niagara Institute for Advanced Manufacturing Competitiveness

The key here is to drive innovation, facilitate export growth and improve workforce readiness. To advance these goals, Buffalo Niagara will create, partly with state funds, a new Institute for Advanced Manufacturing Competitiveness, a commercially viable enterprise that will conduct applied R&D to spur the growth of the region's manufacturers. This entity will be especially helpful to the region's 1,500 small- and medium-sized manufacturers, and is intended to draw forward thinking firms from across the country. A high profile national talent search will recruit research engineers to the institute, while manufacturing consortiums and an expert advisory panel will select its cutting edge equipment. The Institute will provide manufacturers with four primary services: applied R &D; process improvement; export assistance; and workforce training.

## SECTOR STRATEGIES



### Health | Life Sciences

#### ASSETS

Over 260 life science companies across medical devices, research and biotech in the region

WNY is home to 28 hospitals; the region employs ~3,600 doctors, ~20,500 nurses and ~16,700 other medical personnel

Buffalo Niagara Medical Campus – new precinct offering co-location of services, students and new companies

HEALTHeLINK one of the country's most advanced health information exchanges with over 400,000 patients

High quality facilities with strong reputations (e.g., Global Vascular Institute, Roswell Park Cancer Institute)

#### CHALLENGES

Industry frequently cites that translating research into businesses is a challenge

Attracting venture capital funding to the region has proven challenging

Few large companies present to help support and provide workforce mobility and mentorship

## → STRATEGY 2

### Become a leading hub for health and life sciences innovation and commercialization

**Support growth of life science start-ups** through early-stage incubation and access to investment capital

**Become a destination of choice** for conditions in which the region has an existing strength (including oncology, diabetes, neurovascular) by developing and conducting clinical trials for cutting edge therapeutic protocols

**Leverage the HEALTHeLINK database, OMICS database and Roswell biobank** to drive innovations in personalized medicine and digital health solutions

**Enhance industry-institutional connections** that facilitate translation of basic (usually institutional) R&D into commercially viable products and applications

## SIGNATURE INITIATIVES

### The Buffalo SPaRC

#### (Science Productivity and Research Catalyzer)

The aim should be to boost start-up activity and access to early stage capital, and to become a destination of choice for new firms tackling conditions (such as oncology and diabetes) where the region has long been strong. To help make this happen, regional leaders will leverage state funds to launch a new public-private entity called the Buffalo SPaRC (“Science Productivity and Research Catalyzer”), which will help commercialize health and life sciences research in Buffalo and Western New York. Among other things, the SPaRC will identify intellectual property (IP) policies and regulations that are barriers to innovation and company formation, and work to change them; fund firms doing promising early stage research; and better link academia and industry to spur more commercially viable ideas. Informed by successful examples elsewhere, such as Toronto, Houston, and Cleveland, SPaRC will bring new energy and focus to the region’s life sciences agenda.

## SECTOR STRATEGIES

### Tourism

#### ASSETS

Tourism a significant job creator (50 jobs per \$1M tourist spend) and is growing faster than the economy (5% p.a.)

Buffalo's natural and cultural assets match the needs of the largest, fastest growing customer segment (outdoor adventure/ heritage)

Niagara Falls attracts more visitors annually than most national parks (8M vs. 4.4 M in the Grand Canyon)

Multiple cultural assets exist in Buffalo

#### CHALLENGES

Few tourists stay overnight (21% in Niagara vs. 28% in Grand Canyon) and spend less (US Niagara: ~\$159/ day; Ontario Niagara: ~\$225/ day)

High returns to marketing spend (5:1), but current spend is low (a third of Pittsburgh)

Limited tourist amenities exist near the Falls

## STRATEGY 3

Create a compelling, coherent value proposition to drive tourism growth

**Upgrade and invest in the region's tourism "product,"** targeting investments to increase the number and quality of attractions and amenities (e.g., dining, accommodations)

**Expand and enhance programming** that leverages tourism assets to encourage longer stays and increased spending by visitors

**Integrate regional offerings and communications** (e.g., marketing and promotional campaigns) to enhance connectivity among the region's tourism assets and position Buffalo Niagara as a rich hub of tourist activities that appeal to targeted visitor interests; further invest in Buffalo's cultural and heritage assets to improve the tourist experience

#### SIGNATURE INITIATIVES

## The Downtown Niagara Falls Challenge

## Niagara Falls State Park Investments

## Enhancing the Region's Marketing Efforts and Investing in Buffalo Assets

The agenda here includes upgrading the region's tourism "product," (e.g., dining, accommodations); expanding programming to promote longer stays and more visitor spending; and better integrating regional marketing and promotional campaigns. To jumpstart this strategy, the State will invest in the "Downtown Niagara Falls Challenge," a competition to select a team of world class designers, developers and operators to develop signature parcels in the downtown area, which today has few attractive amenities relative to similar attractions. The State will fund the cost of the competition, parcel acquisition, and a subsidy for development. In addition, the State will upgrade the Park with site improvements and additional programming, including such options as bicycling, fishing, trekking, horseback riding, zip lining, rock climbing, cross-country skiing, bird watching, and heritage and industrial-based tours with topics from hydropower to the Underground Railroad.

## CORE STRATEGIES



### Entrepreneurship

#### ASSETS

High quality institutions that could drive innovation in the region (e.g., University at Buffalo's Center for Entrepreneurial Leadership and Buffalo State College's Small Business Development Center)

New business – especially in high growth industries – are a major driver of net jobs growth (two-thirds of net new jobs in 2007 in US)

Existing presence in innovative industries such as life sciences and healthcare

Newly formed and announced innovation hubs (at Buffalo Niagara Medical Campus and Z80 Labs respectively)

#### CHALLENGES

Negative net business start ups (-0.1% small business growth)

Low patent production (Buffalo Niagara ranked 87th of 374 in USA)

Low venture capital (0.29% of deals by value in Q2 2012) and only 23% invested in start ups and early stage (versus expansion)

## STRATEGY 4

**Improve regional innovation performance and attractiveness to entrepreneurs and investors**

**Generate more start-up enterprises** by facilitating more applied R&D and enhancing mentoring and other supports for aspiring entrepreneurs

**Support early-stage firm growth** by strengthening networks for collaboration and streamlining regulatory processes

**Facilitate increased venture funding** through structures and incentives that reduce risks and make it easier for funders to identify, assess and invest in market-viable businesses

**Provide inclusive opportunity** through MWBE entrepreneurship training and tailored support for historically underrepresented groups to ensure entrepreneurship opportunities extend to all segments of the region's population

#### SIGNATURE INITIATIVE

## Buffalo Breakthrough Business Challenge (B3C)

The idea is to systematically generate more start-up enterprises by facilitating more applied R&D and enhancing mentoring and other supports for aspiring entrepreneurs; supporting early-stage firm growth; attracting more venture funding; and making extra efforts to help minorities start new businesses. To kick off this strategy, the region will inaugurate the Buffalo Breakthrough Business Challenge (B3C), the most ambitious annual business plan competition ever launched in America. It will attract entrepreneurs and investors from around the world to compete for prizes that will turn ideas into funded, high-growth enterprises in Buffalo Niagara. Sponsorships from internationally recognized early-stage venture capital firms (e.g., Sequoia, Andreessen Horowitz, Lightspeed Venture Partners) will lend credibility, financial support and key relationships for winners. Internationally recognized media sponsorships (e.g., The Wall Street Journal, Dow Jones, Fast Company, Inc.com, Forbes, BusinessWeek) will promote the competition, raise the winner's profile and create buzz about the region. The B3C will have three features: a business plan competition, an incubator and venture capital investment in the most promising ideas. On a smaller scale, such competitions have helped places like Dortmund, Germany deepen their entrepreneurial activity; by going bigger and bolder with this proven approach, Buffalo Niagara can put itself squarely on the map as America's new innovation capital.

## CORE STRATEGIES



### Workforce

#### STRATEGY 5

**Address gaps in workforce skills to meet current and future market demand and create a more inclusive workforce**

**Expand training programs** in high-growth industries and occupations to ensure demand continues to be met (e.g., health care and medical, tourism, etc.)

**Up-skill/right-skill** the workforce to meet evolving skill requirements of local employers, with a focus on transitioning workers from old-line industries/occupations into next-economy opportunities

**Ensure opportunities** for unerrepresented groups in the workforce

#### ASSETS

Strong mid-skilled workforce with low unemployment

Size of high-skilled workforce mirrors the US

Buffalo has >20 higher education institutions

Advancing skills drives productivity and employment (people with bachelor's degrees earn 65% more than high school graduates, and have less than half their unemployment rate)

#### CHALLENGES

High skilled workers have above average unemployment levels (29% of unemployed, versus 20% nationally) but could be redeployed if demand increases

Large pockets of unemployment exist – particularly African Americans who have the highest unemployment rate (22%)

50% of manufacturers indicate they don't know about or don't use the educational or workforce systems in the region

#### SIGNATURE INITIATIVES

## The Buffalo Skills Partnership Rapid Right Skilling for Buffalo Say Yes to Education

The region needs to expand training programs in high-growth industries and occupations to ensure employers can find the talent they need -- which will often mean transitioning workers from old-line industries into next-economy opportunities. In year one, this strategy will be energized via a newly launched Buffalo Skills Partnership that will serve as a kind of regional "skills broker." The Partnership will convene employers, educators and workforce leaders to design more promising career pathways and associated training protocols in advanced manufacturing and life sciences. It will offer grants that bring to scale current successful programs that train local talent for meaningful manufacturing jobs. It will also support the introduction of the successful "Say Yes to Education" program to Buffalo. "Say Yes" has helped boost graduation and post-secondary attainment rates in a number of cities around the country. This program's success in increasing the graduation rate and providing the foundation for future career development is critical to providing the workforce of tomorrow in the region.

## CORE STRATEGIES



### Revitalization

#### ASSETS

Significant infrastructure capacity in the region to support smart growth

Steady, inexpensive, reliable hydro power

Waterfront development is moving forward with 26 planned projects and ~\$140M in capital from Erie Canal Harbor Development Corporation

Land Bank created to assist planning and green solutions to water runoff being piloted

Plan underway to restore Olmsted parks

Significant adaptive reuse/residential growth in downtown

#### CHALLENGES

Even as population declined, the region has been sprawling in a way that burdens taxpayers

Lack of a cooperative regional approach can drive innovation across the various infrastructure sectors and attract capital

## STRATEGY 6

### Invest in next-generation infrastructure and physical revitalization

**Modernize physical and virtual infrastructure** – leveraging new technologies, materials and delivery methods – to enhance productivity and efficiency of firms and households

**Foster dense, mixed-use, mixed-income redevelopment** of the region’s urban core and waterfront, encouraging co-location of complementary uses, focusing on catalytic sites and emphasizing broad-based public benefits

**Invest in cost-effective transportation connections** between nodes of activity to improve access to employment and educational opportunities

**Enhance vibrancy, livability and quality of life** to attract new visitors, residents and businesses to the region

#### SIGNATURE INITIATIVE

## The Better Buffalo Fund

Under this strategy, Buffalo Niagara will modernize physical and virtual infrastructure; foster dense, mixed-use, mixed-income redevelopment of the region’s urban core and waterfront; and invest in cost-effective transportation connections to improve access to employment and educational opportunities. This revitalization strategy will increase density in core areas, creating vibrant, sustainable communities and reinforcing the neighborhoods surrounding our anchor employment centers to retain and attract current and future generations in the region. To meet these goals, the Better Buffalo Fund will be established -- a public-private financing vehicle devoted to improving disadvantaged areas in the City of Buffalo and developing community-wide assets. The fund will support high impact infrastructure, housing and other development projects that have additional committed funding from other sources. Projects (which will be competitively selected) will also be consistent with the existing vision for growth and sustainability laid out in the Buffalo Comprehensive Plan and other complementary plans.

## Executing the Plan

“A Path to Renewal: The Buffalo Billion Investment Development Plan” is the first step in an ongoing approach to help the Buffalo Niagara economy grow. Its continued evolution requires new institutional capacity to carry this array of activities forward. The process undertaken to develop the Plan itself, and the Western New York Regional Economic Development Council (WNYREDC) process that preceded

it, have set a good example for how the community can come together to support growth.

Executing the Plan requires significant continued stakeholder commitment, accountability and coordination across Strategies and Initiatives. The WNY REDC will continue to work with New York State to ensure an effective balance of high level coordination

across the Plan’s many components and on the ground development, implementation and tracking of specific initiatives. To monitor progress and make appropriate adjustments, major milestones and metrics will be created for each initiative by year. They will be monitored through tracking tools, such as progress reports, to be created for each initiative.

## Implementing the Vision

Western New Yorkers aspire to create a sustainable prosperity by utilizing and enhancing the strengths of our people, by continuing our rich tradition of human innovation; by leveraging our region’s natural beauty and abundant natural resources; and by taking full advantage of our unique and strategic location in the world. We will create a region that is admired worldwide, that attracts more people to live, learn, work and visit; where entrepreneurs and businesses want to invest their time and capital, and where all our institutions reflect a culture of inclusion, continuous improvement, adaptation and excellence.

