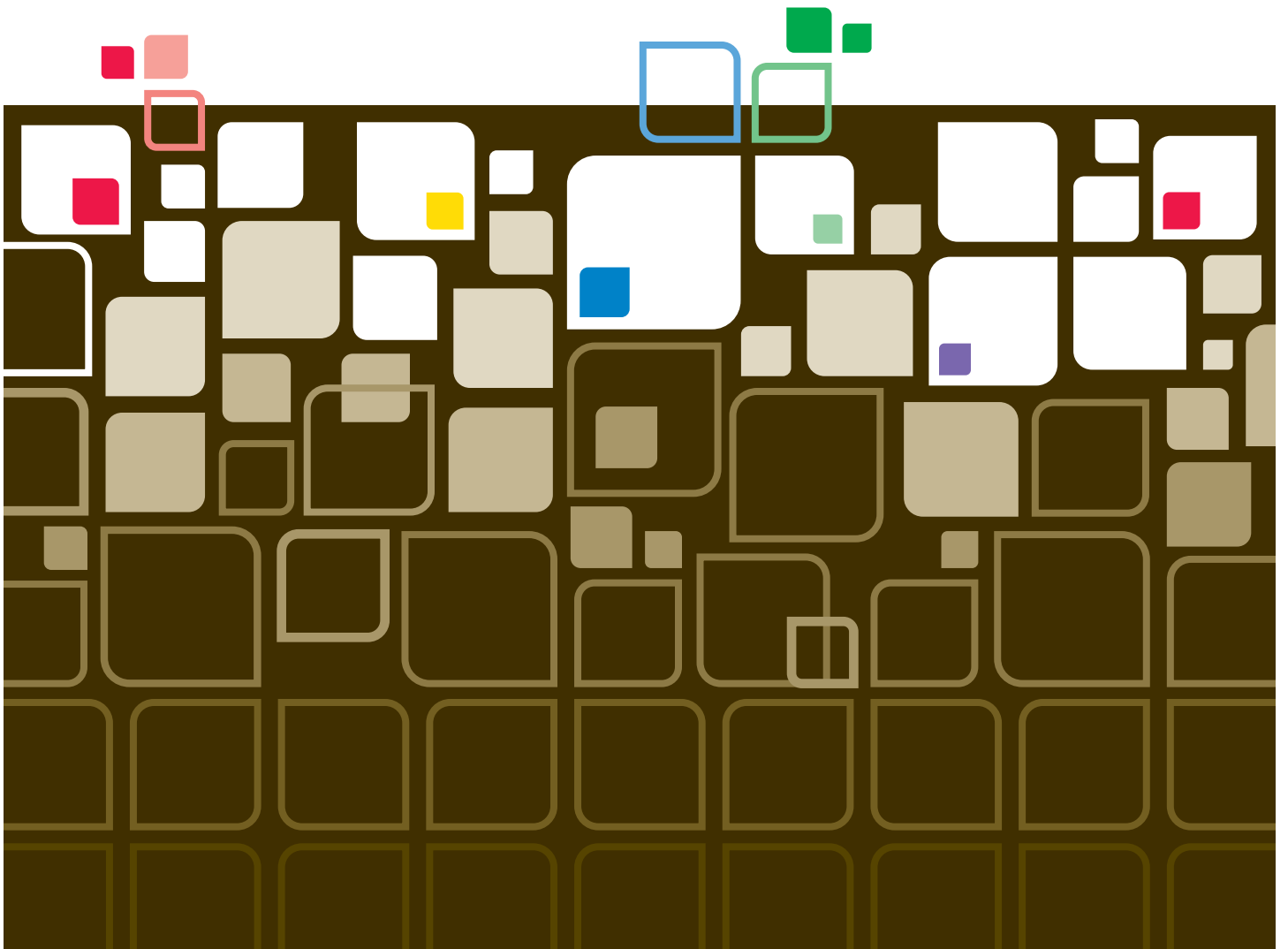


SUSTAINABLE CLEVELAND 2019

Action AND Resources Guide

BUILDING AN ECONOMIC ENGINE TO EMPOWER

A GREEN CITY ON A BLUE LAKE



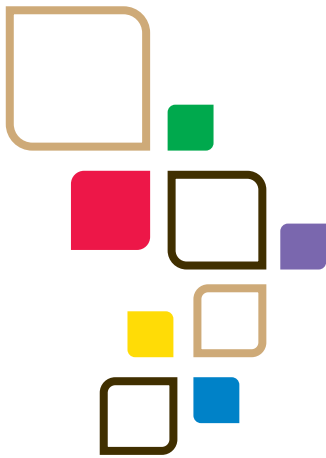


TABLE OF CONTENTS

Table of Contents	i
Contributors	iii
Executive Summary	vii
SECTION 1 : ALIGNMENT & ACTION GUIDE	
1.0 CONTEXT	2
1.1 Introduction	3
1.2 Sustainable Economy Context	10
1.3 Economic Model	17
1.4 Cluster Overview	21
2.0 STRATEGIC FRAMEWORK	30
2.1 Strategic Framework	31
2.2 Personal & Social Environment	35
2.3 Natural Environment	43
2.4 Built Environment	51
2.5 Business Environment	58
3.0 ACTION PLAN : CELEBRATING PROGRESS	66
3.1 Action Plan : Celebrating Progress	67
Energy Efficiency	70
Local Foods	75
Renewable Resources	77
Waste	81
Water	84
Green Space	87
Transportation	90
Vital Neighborhoods	94

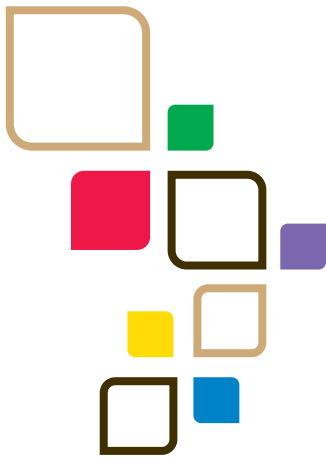


TABLE OF CONTENTS

SECTION 2: BACKGROUND AND RESOURCE GUIDE	96
4.0 BIG PICTURE : ECONOMY	97
4.1 Clustering	98
4.2 Local Economy	123
5.3 Climate Prosperity	133
5.0 IMPLEMENTATION	143
5.1 Implementation Overview	144
5.2 Stewardship Structures	145
5.3 Initiative Design & Evaluation	150
5.4 Measuring Progress	161
5.5 Communication: Branding	168
APPENDICES	
Appendix A: Bibliography	183
Appendix B: Metrics Starter-Kit	189
Appendix C: Sustainability Assets	203
Appendix D: Outreach	207
Appendix E: Brand Background	211
Appendix F: Example "Postcard" Initiatives	215
Appendix G: City of Cleveland Initiatives	225

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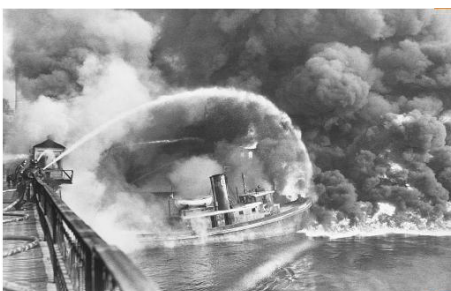
On June 22, 1969 the eyes of the world turned to Cleveland. That moment of attention triggered a mindshift across the US and around the world. The infamous Cuyahoga River fire did two things – it tragically tarnished Cleveland’s reputation, but more important, it generated the Clean Water Act and mobilized the modern environmental movement.

“In the middle of difficulty lies opportunity” – Einstein

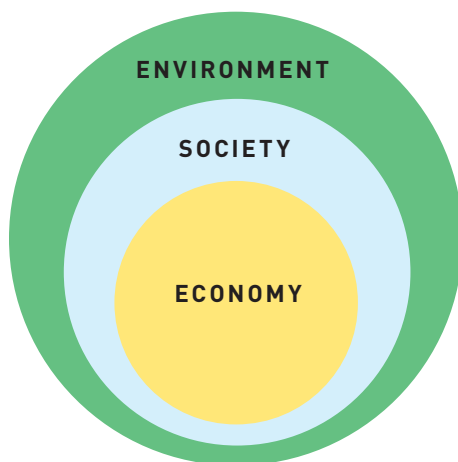
50 years later in 2019 – when the world looks to Cleveland for a sensational retrospective of the fire – like a phoenix reborn from the fire, Cleveland has the opportunity to surprise, amaze, and inspire the world with its transformation to a bright green city on a blue lake.

The ambition of this strategy and action guide is to catalyze action throughout the city. It is a path to transform Cleveland’s economic foundations into healthy fertile soil that will create the conditions for health, wealth, and prosperity for all.

It is dynamic and should change and evolve over time. It is meant to support the many people who are already working with diligence, intelligence, and passion, and it is meant to attract and to invite new voices and new partnerships to the journey. It aims to focus and clarify, and to align and activate.



Sustainability is a process and a way of thinking that helps us make better decisions about how to meet our needs. It helps us consider the long-term implications of our actions. It helps us appreciate the interdependence of a strong economy, a healthy environment, and vibrant society. It helps us develop a more resilient society that can adapt to a dynamic, changing world.



The economy is a subsidiary of the environment and society. Financial transactions and trade take place within the carrying capacity of nature and within the values and institutions created by society.

WHAT IS A SUSTAINABILITY ECONOMY?

A sustainable economy integrates the goals of economic prosperity, environmental health and social vitality. Industrial Era trade-offs between environmental degradation, economic growth and equity are no longer necessary. The social fabric of the community is strong enough that all people can take advantage of changing economic landscapes over time. Businesses are more innovative, efficient, and competitive, nationally and globally.

Sustainable economic development is a lens through which to see new economic opportunity in the challenges we face as a community, as a nation, and as a planet. A sustainable economy serves the greater goal of a high quality of life. It supports good jobs and career pathways, it supports healthy communities, and it supports increasing prosperity over time.

PURPOSE OF THE SC2019 RESOURCE AND ACTION GUIDE

The core purpose of this guide is to support and empower leaders from all walks of life to make tangible progress on matters that are of interest and importance to them. It provides a framework in which conversations and actions can take place in a way that aligns with a greater vision of a sustainable economy.

In essence, it is a road map. A map gives an abstract picture and overview of the landscape, but doesn't capture the actual experience of the journey or the adventures and challenges along the way.

A WAVE OF CHANGES

SC2019 will help define and launch actions that will enable Cleveland to achieve a high performing sustainable economy for all. As the actions proposed are carried out, elected officials, business leaders, and community members will benefit from a wave of incremental change. This wave of small changes in policies and practices will achieve three outcomes fundamental to sustainability:

ECONOMIC PROSPERITY

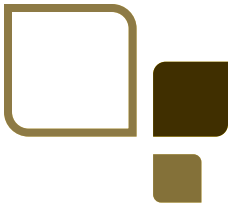
A resilient local economy that builds prosperity over time. *Measured by increased opportunities, above-average employment and household wealth, and reduced income disparities.*

ENVIRONMENTAL HEALTH

A clean and attractive environment that sustains healthy people and a strong economy. *Measured by reductions in per capita energy use, reductions in use of non-renewable resources, improvement in air and water quality, waste reduction, and improved habitat quality for wildlife.*

SOCIAL VITALITY

A diverse and inclusive community where every person has access to the resources and opportunities needed for success. *Measured by reductions in educational and health disparities, increasing levels of safety and community involvement, and the regeneration of the urban core and neighborhood centers.*



PATH TO SC2019

In order to create a bold economic transformation that will be a global inspiration, everyone must work together to restore and regenerate the foundations of the economy.

SC2019 IS A COLLABORATIVE EFFORT THAT AIMS TO:

- SUPPORT AND ENHANCE EXISTING PROJECTS AND INITIATIVES
-
- ENGAGE NEW VOICES
-
- IMPLEMENT NEW TRANSFORMATIONAL PROJECTS AND ACTIVITIES
-

SUSTAINABLE CLEVELAND 2019

SC2019 is a 10 year initiative to catalyze action and to create a vibrant sustainable economy. It aims to support conditions that will grow jobs, improve health, and increase wealth in a way that fosters equity and community, and improves the natural environment. Although Cleveland faces many complex economic, social and environmental challenges, determined people from all walks of life have been working diligently to turn the tide – there is broad momentum toward a creating a sustainable economy.

SC2019 germinated from the Sustainable Cleveland 2019 Summit hosted by Mayor Jackson in August 2009. At this summit, nearly 700 participants launched the SC2019 initiative and they have continued to advance the work and champion the process throughout the past year.

THE PATH TO 2019

1) IMPLEMENT THE SC2019 CELEBRATING PROGRESS ACTION PLAN

Celebrating progress toward Sustainable Cleveland 2019 – a yearly community wide celebration to increase momentum, create new collaborations, and tell the story of Cleveland’s transformation

2) ALIGN WITH THE SET OF PRIORITIES AND GOALS IN THE SC2019 STRATEGIC FRAMEWORK

Business, community, and government come together to focus on target outcomes and actions to strengthen our economic foundations

3) UNDERSTAND FORCES THAT ARE SHAPING SUSTAINABLE ECONOMIES AROUND THE WORLD & HERE IN CLEVELAND

Economic, social and environmental context that informs the conversation and inspires proactive & innovative responses

4) USE THE 2019 SUPPORTING STRUCTURES & TOOL KIT

Stewardship Structure, Measuring Progress Framework, Initiative Design Framework

5) TAKE ACTION IN A WAY THAT IS UNIQUELY YOUR OWN

SC2019 actively encourages the creative chaos and experimentation that is the hallmark of American freedom and our entrepreneurial spirit.

“In order for us to create a sustainable, green economy, it has to be an integral part of what we do every day. It has to be what we do as a community. How we plan, how we invest, how we make money, how we spend money.”

– Mayor Frank Jackson

A sustainable economy helps people to save money, make money, and invest money in ways that create long term value and a high quality of life.

AT EVERY POINT ALONG THE JOURNEY, CLEVELANDERS MUST STOP AND ASK:

How does sc2019 relate to the things I care about?

How does this make my life better? What can I do to be involved?

WHAT HAS LED CLEVELAND TO THIS GUIDE?

In August 2009, Mayor Frank Jackson convened the Sustainable Cleveland 2019 Summit to bring together hundreds of people interested in applying the principles of sustainability to the design of the local economy. The Summit generated tremendous enthusiasm. It inspired hundreds of ideas in areas such as advanced energy, green building, local food, water, transportation, sustainable business, vacant land re-utilization, and more.

Groups of active community leaders and business leaders have been working toward creating a sustainable economy within sustainability networks, communities of practice, summit Working Groups, and within individual businesses and homes.

This Action Guide was commissioned to provide an alignment point, a support, and a stronger conceptual framework for the ideas generated by the Summit, many of which are already being put into action by existing businesses, organizations, government bodies, and volunteers.

Additionally, there are already many great economic development plans in the Cleveland Area that have embedded the principles of sustainable economic development. The Sc2019 Action Guide is aligned with these plans, and is not meant to replace or to change them, but rather to provide another arrow in the quiver and a point of connection. The SC2019 Initiative will be a hub of information about all activities that are accelerating Cleveland’s economic transformation.

Cleveland has reached a tipping point and is ready to implement a type of economic development that has the principles of sustainability woven into the fabric of our actions.

HOW TO READ THIS GUIDE:

This action guide is intended to be a framework for guiding future action in a changing world. ***It offers an approach for applying the principles of sustainability to find economic opportunities.***

While this general approach will remain consistent in the future, the lists of specific goals and initiatives in the following pages are just a snapshot of the kinds of actions that make sense today and they are illustrations of the current possibilities. Recommendations and promising practices will change as conditions change — in fact, they *must* change if we are to have an adaptive, resilient economy.

This plan is a dynamic work in progress. It should be updated continually between now and 2019.

PURPOSE AND MANDATE OF THE PROJECT

The priority for this guide is to create an overall structure to align and guide SC2019 activities. It defines a clear path for moving forward as SC2019 deepens its organizational capacity and moves toward formal implementation.

The Action Guide creates a language that helps support, accelerate, and align strategies that are already being implemented with intelligence and diligence and to inspire new activities. It provides a framework for more focused stakeholder engagement and the development of detailed strategies as a key next step

The Sc2019 Action Guide engages the fundamental questions: How is sustainable economic development different than traditional economic development? How can we re-frame the foundations of the economy in a way that truly integrates sustainability? What role does the local economy play? How do quality of place and vibrant neighborhoods play a role? What are the key forces at play and how do they create both opportunities and risks for Cleveland? How can both a structured approach and a “creative chaos” approach to transformation be harmonized and harnessed?

PURPOSE To offer a transformational path toward a new economic future – a guide for action and tools to accelerate momentum

QUALITIES Dynamic and evolving over time. Accessible to all stakeholders.

MANDATE To create a resource and action guide that will support Cleveland as it moves toward a more sustainable economy. Community Leaders, Government Leaders, and Business Leaders, and Households can use this guide to independently align with SC2019 goals and priorities.

METHODOLOGY

SYNTHESIZE

The Action Guide synthesizes information from 17 different economic development reports from Cleveland. It includes initiatives and policy recommendations from past reports, Summit Working Groups, City government, and business leaders.

LISTEN

In the process of defining the priorities and context for SC2019, over 100 stakeholder interviews were conducted. Survey data was collected from city departments, from the business community, and from the broader Cleveland community.

BUILD

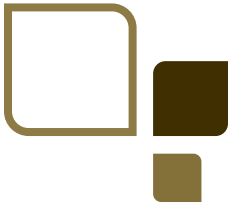
The Action Guide builds on existing activities and momentum in Cleveland.

BRING PERSPECTIVE

The Action Guide is informed by professionals with extensive global experience in hands-on regional economic development. Local and national experts in sustainability, creative cities, local economies, and economic development were engaged to create an innovative model and framework tailored specifically to Cleveland.

RESEARCH

The Action Guide is further informed by sustainability and sustainable economic development plans from cities across the United States and promising practices from around the world.



VISION – MISSION – VALUES

“A good wind blows in favor of a ship with a clear direction”

VISION

the star that guides you

MISSION

the boat that takes you on your journey

VALUES

how you will behave along the way

VISION

Cleveland will surprise, amaze, and inspire the world with its transformation to a bright green city on a blue lake.

Determined people from every walk of life will work together to shape vibrant livable communities, innovative businesses, and a flourishing natural environment that will result in health, wealth, creativity, and economic opportunities for all.

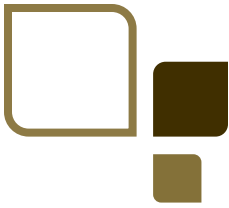
MISSION

Sustainable Cleveland 2019 is a 10-year initiative that engages everyone to work together to design and develop a thriving and resilient Cleveland region that leverages its wealth of assets to build economic, social, and environmental well-being for all.

It supports and aligns efforts that are already being championed with intelligence and passion throughout the region and it activates new efforts and new leadership along the way.

VALUES

- Dynamic and cumulative
- Combines a sense of urgency for action with positivity and kindness
- Inclusive, accessible, and welcoming
- Encourages persistence, determination, courage, and boldness
- Promotes creativity, innovation, and execution



CONTEXT FOR ACTION: THE SUSTAINABILITY IMPERATIVE

THE CONVERGENCE IS DUE TO THE IMPACT OF THREE FORCES:

Markets—rising energy and associated resource costs and consumer demand for safe and healthy products

Policy—increasing probability of climate change intervention (carbon taxes) and environmental regulation (energy standards, emissions control and chemical content disclosure requirements)

Community—pressure to minimize environmental impacts of water, air and soil on health and family

CONVERGENCE

There is a “convergence” taking place globally that Cleveland must recognize and take advantage of locally.

Economic, Environmental, and Social challenges are no longer understood separately; around the world there is a rapidly accelerating focus on achieving a high-performance economy through careful attention to all three arenas. In order to be competitive in the future global economy, economic development must take place at the point of overlap – **this convergence point is the heart of sustainability.**

This sustainability convergence is causing regions to look for their own “triple bottom-line” outcomes: prosperity, environmental sustainability, and equity. These outcomes are how public officials, community, and business leaders are increasingly measuring “success.”

Achieving the outcomes which will shape a sustainable Cleveland involves rethinking and strengthening how the region wrestles with challenges in four key areas: The Personal and Social Environment, the Natural Environment, the Built Environment, and the Business Environment.

Sustainable Cleveland is about achieving an ongoing flow of incremental improvements that will become waves of positive change.



These four areas can be understood at the foundations of a sustainable economy and they are basis for the SC2019 Strategic Framework.

SOCIAL & PERSONAL ENVIRONMENT

How our community creates, adapts to and benefits from the challenges of a sustainable economy

NATURAL ENVIRONMENT

How we restore and harness our natural capital, from brownfields to waste and renewable energy, through leveraging their economic and social value in new ways

BUILT ENVIRONMENT

How our neighborhoods, institutions, industries, and city infrastructures successfully integrate sustainability into their built environments

BUSINESS ENVIRONMENT

How our region’s economic engines adapt to market changes while “greening” their supply-chain and accelerating innovation in clean technologies.

DYNAMICS:

1) SUSTAINABILITY IS A TRANSFORMATION, NOT A TREND

2) THE GLOBAL MARKET IS IN A VOLATILE AND INNOVATIVE PERIOD

3) NEW INNOVATION & ECONOMIC GROWTH WILL COME FROM SUSTAINABILITY SOLUTIONS

DYNAMICS INFORMING THE ECONOMIC SUSTAINABILITY IMPERATIVE

Sc2019's proactive response to the sustainability imperative considers the following dynamics...

1) SUSTAINABILITY IS A TRANSFORMATION, NOT A TREND:

Focus on Reinforcing the Foundations: Cleveland must shore-up and transform the foundations of the economy in a way that creates economic value in the short term and sets the stage for long term resilience and growth.

Whole Systems Accounting: A sustainable economy will take into account full costs and impacts of economic activities, as well as multiple positive benefits.

Mindshift: "Culture eats strategy for breakfast." Culture is a key challenge in accelerating change. Without a culture change that embraces sustainability, inertia will trump the best laid strategies and business will continue as usual – which is not good for Cleveland's economy.

Trends, Risks, Leakages, and Opportunities: In order to be competitive in the new economy, leaders must be aware of and constantly evaluate market and regulatory trends and risks, assess where are there are the greatest wealth and resource leakages in the community, and look for opportunities to save money, make money, and invest money.

2. THE GLOBAL MARKET IS IN A VOLATILE AND INNOVATIVE PERIOD:

Resilience: A sustainable economy is not built around a few large industries, but is made up of more industries in multiple sectors.

No Silver Bullet: Demand is growing for products and services that respond to sustainability challenges and opportunities. In addition to investing in specific industries, Cleveland must also prepare the foundations of its economy in order to be competitive within a global market that is still taking shape.

Local Demand is a Driver: A strategic focus on certain facets of the local economy that can improve Cleveland's ability to compete in the global economy.

3. NEW INNOVATION & ECONOMIC GROWTH FROM SUSTAINABILITY SOLUTIONS:

Support entrepreneurs: Growth will come from entrepreneurs who provide solutions to environmental & social challenges.

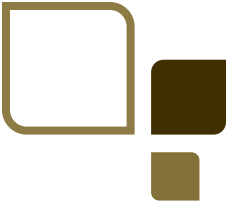
Transition: Businesses must transition to sustainable production methods, practices, and products.

Attract new businesses: A focus on fostering a high quality of life and an environment that supports innovation will attract new businesses to locate in Cleveland.

Increase diversity and inclusion: Diversity and inclusion are essential to increasing innovation and accelerating economic growth.

“There is a simple rule about the environment. If there is waste or pollution, someone along the line pays for it”

– Lee Scott, Chief Executive, Wal-Mart
(October 2005)



ACTION PLAN: CELEBRATING PROGRESS

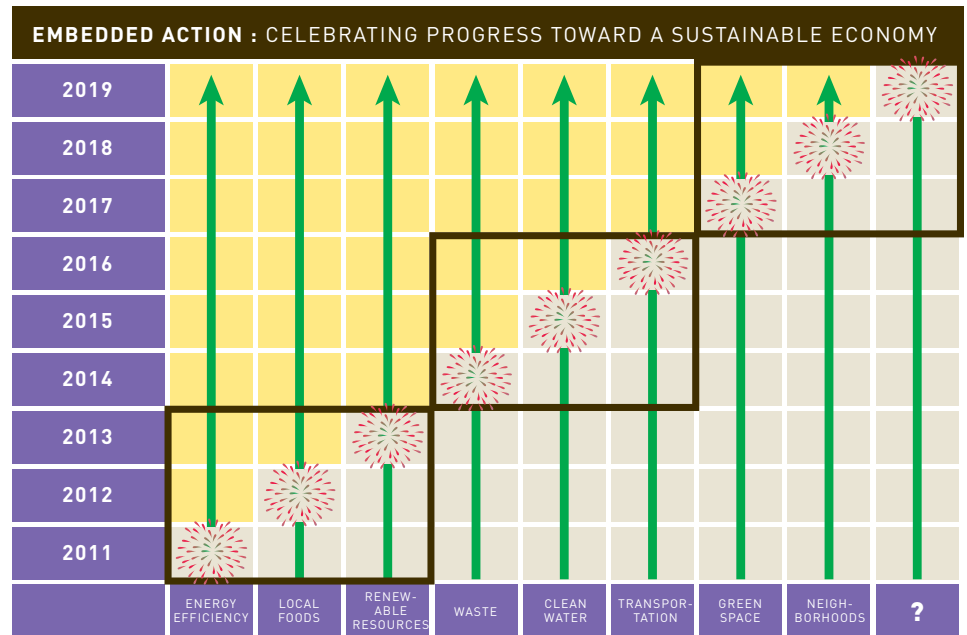
START WITH ACTION & CELEBRATION

Theory and strategy come alive in the SC2019 Action Plan: Celebrating Progress.

Every year leading up to 2019, Cleveland will focus on one of the key areas fundamental to a sustainable economy. The SC2019 *Celebration Points* are designed to be accessible to all members of the community – households, neighborhoods, businesses, and institutions can all participate, either in collaboration or independently.

CELEBRATION POINTS:

- 2011 – ENERGY EFFICIENCY
-
- 2012 – LOCAL FOODS
-
- 2013 – RENEWABLE RESOURCES & ADVANCED ENERGY
-
- 2014 – ZERO WASTE
-
- 2015 – CLEAN WATER
-
- 2016 – SUSTAINABLE MOBILITY
-
- 2017 – CLEAN GREEN SPACES
-
- 2018 – VITAL NEIGHBORHOODS
-
- 2019 – TBA
-



Note: This plan is flexible! Every three years, the order will be re-set by the SC2019 Stewardship Council. The final year has been deliberately left open in order to leave room for unexpected events and emerging opportunities.

CELEBRATING PROGRESS...

HOW DOES CELEBRATING PROGRESS RELATE TO JOBS?

Celebration points focus on opportunities for economic growth - each area has the potential to:

Create direct employment opportunities

Foster a high quality of life that will attract new businesses and retain talent

Stop wealth and resource outflows

Facilitate innovation and a mindset shift that will be necessary to succeed in the new economy.

CELEBRATION YEARS ARE NOT A BEGINNING OR AN END...

Each Celebration Point is not an end or a beginning to the work - in order for real transformation to take place, all of the areas outlined will need a consistent focus over a long period of time.

Activities and initiatives will not start or stop during a particular year, but during each “year of” there will an emphasis on making as much progress as possible on the chosen issue. A concentrated focus will create an inspiring a sense of excitement and urgency.

CELEBRATION POINTS ARE ORDERED BASED ON...

Skills progression

Alignment with city initiatives and existing community celebrations

Alignment with community momentum

WHY CELEBRATING PROGRESS?

Motivate action and accountability

Align for collective impact & collaboration

Create new connections for accelerating momentum

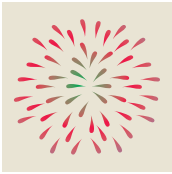
Raise awareness and provide a platform for telling the stories of Cleveland’s transformation

Provide a way for everyone to participate – with first steps or with bold actions.

Have fun! Celebrations are key to community cohesion, to expressing and sharing unique qualities of place, and to accelerating culture shift.

SUMMARY OF FIRST THREE YEARS:

The following pages give an overview of the first three years of Celebrating Progress - Energy Efficiency, Local Foods, Renewable Resources and Advanced Energy. Each overview gives a brief summary of the topic organized around economic opportunities for the City, for businesses, and for the community. Also included are examples of current available funding at the national, state, and local levels, examples of current initiatives, and examples of current momentum in the Cleveland area.



CELEBRATION POINT

ENERGY EFFICIENCY (YEAR 1 - 2011)

Energy efficiency can be defined as simply “using less energy to provide the same level of energy service.” While Americans use on average more energy than any other country in the world besides China¹, the need to improve energy efficiency is not simply an environmental issue, but also an enabling factor and basic premise of a competitive and sustainable economy.

Energy efficiency offers a two-fold opportunity for Cleveland’s economy. First, new business opportunities for Cleveland are born out of the need for an environmentally sustainable economy, allowing Cleveland both to retain jobs and create new employment opportunities in traditional sectors such as construction, building and manufacturing. Second, energy efficiency can decrease input and operating costs for the City and Cleveland businesses, while allowing individuals to reduce their expenditures on a household level. This provides an opportunity to increase businesses’ profit margin, free up money for reducing deficit while retaining the government’s public spending allowance, and increase wealth in Cleveland communities.

¹ International Energy Agency, July 2010, <http://www.iea.org/>

While employment in construction in Ohio has declined by nearly 15% between 2000 and 2008, both regional and national statistics demonstrate a clear trend toward a growing job market in the energy-efficient construction sector, one that includes Green Building, Weatherization and Retro-fitting. Relative to conventional construction, green building has

the potential to create 3-4 more jobs indirectly or directly for every million spent. Similarly, the National Association of Home Builders suggests that energy efficient retrofit jobs of a certain capacity could generate three times more jobs than traditional residential remodeling². There are

currently more than a quarter of a million homes in Cuyahoga county that could benefit from weatherization and energy improvements, which would both, respond to the local demand as well as provide local jobs that cannot be outsourced reducing energy use by 25-50%.

² www.sahfnet.org/index_23_1_1.pdf

BUSINESSES AND CITIES

Not only does energy efficiency create new business opportunities and employment, it can help to reduce input and operating costs for local businesses thereby improving productivity and profit margin. Rising prices in oil and other fossil fuel markets in the last decade coupled with a growing global energy demand has led to increases of energy costs for businesses by an average of 60-70% since 2000.¹ For the most energy intensive companies, energy costs more than tripled and the U.S. Department of Energy's 2009 Annual Energy Outlook projects a 2014 price of about \$104/barrel, almost 5 times higher forecast than in the 2006 Annual Energy Outlook.² Energy efficient solutions hence allow for significant long-term energy costs reductions for businesses but also for cities, providing more opportunity for local public spending on other enabling conditions for a competitive economy, for example, infrastructure, education or green space.

COMMUNITIES

The same principal applies on a household level. As individual homes reduce their energy consumption either through a change in behavior and/or a more energy efficient living space, the impact on wealth and on poverty alleviation is substantial. While an average household in U.S. spends 5% of its income on energy bills, the average low-income household spends between 15% and 35%.³ Home weatherization can lead

to a drop in energy spending in case of average low-income households by 5-14%. Energy efficiency on a household level is extremely relevant within the Cleveland context, as the city has relatively old housing stock and a cold climate for achieving energy savings for low-income people by applying building retrofits, such as replacing windows or upgrading insulation. Homeowners and renters could save up to 4% of their income by investing in retrofits,⁴ increasing wealth and money that can be spent locally and contributing to a more resilient and prosperous economy for Cleveland.

EXAMPLES OF AVAILABLE FUNDING AT FEDERAL/STATE LEVEL

AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009

The U.S. Department of Housing and Urban Development (HUD) and the Department of Energy (DOE) announced a partnership intended to streamline the assistance program for families to weatherize their homes. HUD and DOE will allocate \$16 billion in economic recovery funds to retrofit existing homes. HUD's programs include \$4.5 billion to renovate and upgrade public and Native American housing, as well as \$250 million for energy retrofits of privately owned federally assisted housing. DOE will invest \$5 billion in weatherization funds; \$3.2 billion for a new Energy and Environment Block Grant that cities and states can use to retrofit homes; \$3.1 for the State Energy Program; and other programs.⁵

The State Energy Program will enable Ohio to stimulate the creation and retention of jobs, save energy, increase energy generation from renewable energy, and reduce greenhouse gas emissions. The program is a collaboration between the Ohio Department of Development and the Ohio Air Quality Development Authority with input from additional state agencies. The total level of State Energy Program funding allocated to Ohio is \$96,083,000.⁶

The Energy Efficiency and Conservation Block Grant

program is one of several energy-related programs receiving funding through American Recovery and Reinvestment Act. A total of \$84,183,300 is available to Ohio, which includes \$59,203,700 that was made available through direct allocation from the federal government to the 10 largest counties and to the 33 largest cities.⁷

ENERGY INNOVATION HUBS: ENERGY EFFICIENT BUILDING SYSTEMS REGIONAL INNOVATION CLUSTER INITIATIVE

a multi-agency funding opportunity to support an Energy Regional Innovation Cluster.⁸

1 Pew Center on Global Climate Change, From Shop Floor to Top Floor: Best Business Practices in Energy Efficiency, April 2010, http://www.pewclimate.org/docUploads/PEW_EnergyEfficiency_FullReport.pdf

2 Id.

3 "Unlocking Energy Efficiency in the US Economy", McKinsey Global Energy and Materials, p. 32, July 2009, http://www.mckinsey.com/clientservice/electricpowernaturalgas/downloads/US_energy_efficiency_full_report.pdf

4 Cleveland, Ohio, Green Prosperity and Poverty Reduction", Political Economy Research Institute, University of Massachusetts, Amherst, June 2009, http://www.peri.umass.edu/fileadmin/pdf/other_publication_types/green_economics/green_prosperity/Cleveland_Green_Prosperty.pdf

5 http://portal.hud.gov/portal/page/portal/RECOVERY/transparency_resources/HUD-DOE%20Weatherization%20

Fact%20Sheet.pdf

6 http://www.development.ohio.gov/recovery/energy/fundingopportunities.htm#Energy_Efficiency_

7 Id.

8 <http://www.energy.gov/hubs/eric.htm>

CITY INITIATIVES

SHAKER HEIGHTS – GREEN ENERGY PROGRAM

grants toward energy efficiency work in homes.

THE CITY OF CLEVELAND – LED (LIGHT EMITTING DIODE) LIGHTING INITIATIVE⁹

This initiative is an effort to change out our lighting including streetlights, traffic lights, and indoor incandescent and fluorescent lighting replacements. The effort uses the City’s purchasing power to create jobs, attract business investment, save the city money, reduce the City’s energy consumption, reduce the City’s carbon footprint and spur the creation of a sustainable economy in Cleveland.

GREATER CLEVELAND ENERGY ALLIANCE

This proposal is currently being developed and studied as part of a study being conducted by Clean Energy Solutions. It is to develop an energy conservation program for the private sector that allows for energy efficiency improvements at no up-front capital costs for people participating in the program.

ENERGY EFFICIENCY AND ADVANCED ENERGY SPECIAL IMPROVEMENT DISTRICTS

The City and the First Suburbs Consortium recently won the Efficient Gov.org challenge to create Special Improvement Districts for Advanced Energy and Efficiency programs. The City is seeking to develop a special improvement district that allows for the voluntary property assessment for energy and energy efficiency improvements. This is an important

program to pursue to help bring energy efficiency retrofits to scale along with solar and other advanced energy applications for private property owners.

ILLUSTRATIONS OF CURRENT ENERGY AND MOMENTUM

STATE POLICY

Prompted by the supportive state policy of SB 221 enacted by the Ohio General Assembly in 2008, investor-owned utilities in Ohio are investing in energy efficiency to obtain a portion of their power. This could lead to innovative projects between utilities and community groups to help people save energy in their homes.

Green building — The Northeast Ohio Chapter of the U.S. Green Building Council is educating the region’s building and design industries about the benefits of high-performance buildings. The City of Cleveland is phasing in tougher energy requirements for projects receiving city funding.

RETROFITS AND CODES

The Sustainable Cleveland 2019 Green Building Work Group is promoting an aggressive program of building retrofits to save energy and create jobs, as well as new building codes with tougher energy requirements.

DEEPER RETROFITS

Environmental Health Watch’s Green and Affordable Housing Program is piloting “deep energy retrofits,” which can turn ordinary homes into near zero-energy homes.

ENGINE TECHNOLOGY

Ford is manufacturing some of its most efficient engines in Northeast Ohio.

LIGHTING TECHNOLOGY

Northeast Ohio is a center of advanced lighting research with companies such as GE and TCP.

DONATIONS FOR CARBON REDUCTION

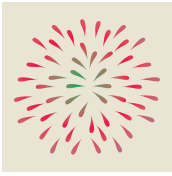
The Cleveland Carbon Fund accepts donations and invests in projects, such as light bulb replacement efforts, that reduce carbon emissions while creating jobs in Cleveland neighborhoods.

ENERGY EFFICIENCY TECHNOLOGIES

Companies such as Ford, Eaton Parker Hannifin and others are developing technologies that are creating some of the most efficiency engine technologies available



⁹ http://www.city.cleveland.oh.us/clnd_images/PDF/Mayor/LED_Initiative.pdf



CELEBRATION POINT

LOCAL FOOD (YEAR 2 - 2012)

Local food is defined as the “production, process, distribution and consumption of food within a specific region, often defined as 100 miles from farm to fork.” A focus on local food is not only essential for a sustainable economy in Cleveland due to its environmental benefits, but is also an important economic driver. While a focus on local foods can lead to a significant improvement in air and soil quality and a reduction of the city’s carbon footprint, it also represents an economic sector whose resilience can significantly increase local wealth, create new jobs that cannot be outsourced and provide diverse business opportunities for value-added product and services that are imperative for the city’s competitive economic future.

CITY

The local food sector rests at the very foundation of a competitive self-help economy and is grounded in a large local market and strong local supply capacity. At present, the local demand for food is satisfied through imports from other states and only 5% of food is supplied from locally grown and produced products.¹ The remaining 95% spent on food outside of the community represents a significant leakage of resources and revenue, as it leaves the economy and is not circulated back into the local economy. Local spending also has a very high multiplier effect. According to a study by the New Economics Foundation in

London, a dollar retained and spent in the local economy has the potential to generate twice as much revenue within the local economy, increasing income for local businesses and city revenue that has steadily declined due to a decreasing population.² On the whole, Ohioans devote 11% of total consumer spending to food. Following the findings of Ohio Department of Agriculture, localizing only 10% of consumer spending could result in an additional \$10 billion per year in the state economy, based on conservative economic multipliers.³

² “10 Reasons to Eat Local” http://fogcity.blogs.com/jen/2005/08/10_reasons_to_e.html

³ Economic Analysis of an Ohio County Local Food System Offers Blueprint for Nation, November 2009, http://www.extension.org/pages/Economic_Analysis_of_an_Ohio_County_Local_Food_System_Offers_Blueprint_for_Nation

The local food sector provides a concrete opportunity to increase local jobs that cannot be outsourced. The Northeast Ohio Local Food Assessment plan cites high potential for Cleveland’s surrounding areas, demonstrating that 25% food localization would provide 10,000 new jobs, produce \$346 million in earnings, and create \$1.4 billion in output. Employment opportunities include, but are not limited to, food production, farming services, food distribution, food manufacturing, meat processing, and food tourism, as well as entrepreneurial opportunities for organic, value added products that can enter into – and command a high price – on a national market.

¹ Id.

BUSINESSES AND COMMUNITY

In addition to presenting new business and employment opportunities, a focus on local foods leads to positive economic externalities, which underpin and sustain a competitive and prosperous economy. Improving community health and wellness will reduce costs for employers in the private and public sector, as they provide health insurance for employees and cover health related costs for Cleveland residents. According to the U.S. Chamber of Commerce, at 12%, healthcare is the most expensive benefit paid by U.S. employers.¹ Healthy employees lead to both higher productivity, less sick days and lower labor costs for the public and private sector in Cleveland.

Another important positive externality resulting from a focus on local food is the consequent increase in urban gardens and agriculture, which not only improve air quality and reduce green house gas emissions, but also provide more green space and immediate access to nature, two essential principles to a higher quality of place, an essential factor in establishing a competitive and prosperous economy and a “driver of prosperity” in the emerging economy

EXAMPLES OF AVAILABLE FUNDING AT A FEDERAL LEVEL

THE COMMUNITY FOOD PROJECTS COMPETITIVE GRANTS PROGRAM by the Department of Agriculture, National Institute of Food and Agriculture is designed to increase food security in communities by

¹ Council on Foreign relations, http://www.cfr.org/publication/13325/healthcare_costs_and_us_competitiveness.html

bringing the whole food system together to assess strengths, establish linkages, and create systems that improve the self-reliance of community members over their food needs. \$4.8 million were set aside for 2010.

USDA GRANTS FOR LOCAL AND REGIONAL FOOD SYSTEMS¹⁶²

designed to develop food systems that are economically, environmentally, and socially sustainable

CITY INITIATIVES

CITY'S LOCAL AND SUSTAINABLE PURCHASING ORDINANCE

The City's Ordinance promotes the purchasing of local and sustainably produced products, goods and services. For example, the city offers a 5% discount to local food businesses bidding for city contracts aimed at local businesses certified Local Sustainable Business.³

CLEVELAND-CUYAHOGA COUNTY FOOD POLICY COALITION

The coalition is developing working groups on Community Food Assessment, School Nutrition, Land Use and Planning, Institutional Purchasing, Food Waste Recovery, and Rural/Urban Interface with the goal to develop a more equitable, healthy, and sustainable food system.⁴

INSTITUTIONAL SUPPORT OF THE LOCAL FOOD MOVEMENT through developing policies supporting local food production, expanding access to local produce through community

² <http://sustainableagriculture.net/wp-content/uploads/2010/06/6.18-FINAL-Food-System-Funding-Guide2.pdf>

³ <http://www.gabl.org/blog/marc-lefkowitz/cleveland-adopts-local-food-incentives>

⁴ <http://www.gabl.org/food/regional-agenda/cleveland-cuyahoga-county-food-policy-coalition>

gardens, greenhouses and local farmer's markets throughout the City of Cleveland and the region.

ILLUSTRATIONS OF CURRENT ENERGY AND MOMENTUM

IN 2008 SUSTAINLANE RANKED CLEVELAND AS THE SECOND BEST CITY IN THE NATION FOR ITS LOCAL FOODS/AGRICULTURE MOVEMENT.

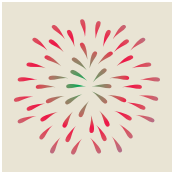
LOCAL FOOD CLEVELAND NETWORK⁵

EXAMPLES OF THE LOCAL FOOD MOVEMENT ARE SEEN THROUGHOUT THIS ACTION GUIDE

(see local food case study in chapter 4, Strategic Framework: Restore & Regenerate Priority Area, Chapter 2)



⁵ <http://www.localfoodcleveland.org>



CELEBRATION POINT

RENEWABLE RESOURCES AND ADVANCED ENERGY (YEAR 3 - 2013)

RENEWABLE AND ADVANCED ENERGY

Energy use and production is one of the largest sources of carbon emissions in the U.S., as well as one of the most costly inputs for businesses and highest expenses for American households. Ohio's extremely high carbon footprint due to its history of heavy manufacturing – the fourth highest in the country – is paired with a high level of dependence on regional coal and foreign fossil fuel production. The state currently sends \$1.7 billion each year to other states to purchase coal as an energy input for power plants, largely from Michigan, Iowa and Indiana, while the rising price of oil puts Ohio in a vulnerable position and undermines productivity and competitiveness amongst local industry.

A continued focus on traditional, non-renewable energy sources not only ensures high economic and environmental costs for Cleveland, it also represents a missed opportunity for innovation, economic growth, and renewed competitiveness. Advanced sources of energy – wind, solar, biomass and fuel cells – leverage Cleveland's competitive advantage in manufacturing and respond to the strong local demand, a perfect context in which to develop new business and employment opportunities, as well as cut costs, enhance sector productivity and increase community wealth.

Advanced energy represents a quickly emerging industry and grew more

than three times as fast as the overall economy between 2006 and 2007. Substantial job growth for Cleveland can result from a focus on renewable energy, as renewable energy creates four times as many jobs per megawatt of installed capacity as natural gas and creates 40% more jobs per dollar invested than coal-fired plants.¹ Ohio's Department of Development estimates that there are already over 60,000 specialized workers supporting the state's advanced energy industries, in wind, solar, biomass and fuel cell development. Recognizing these

¹ "New Energy America", 2004 Apollo Alliance Report, p. 10. http://www.apolloalliance.org/downloads/resources_ApolloReport_022404_122748.pdf

opportunities, Ohio has made first strides toward expanding advanced energy use in the state and passed a law that requires electric utilities to obtain at least 25% of their power requirements by 2025 from advanced energy and energy efficiency sources. Half of this requirement must be renewable energies. The Renewable Energy Policy Project has estimated that a federal renewable energy portfolio standard mandating a 25% reduction in CO₂ by 2025, would create 51,269 wind, solar, geothermal, and biomass manufacturing jobs in Ohio. Securing 30% of that opportunity would result in more than 15,000 new jobs in Northeast Ohio (Pre – Summit Briefing, pp.32).

WIND

Wind power has captured the imagination of many Clevelanders and a large wind turbine gracefully generates electricity near the Cleveland Browns Stadium and Lake Erie.

This economic sector has already produced more than 220 businesses and research institutions which are involved in Ohio's wind energy supply chain, and more than 1,000 companies have been identified as eligible to transition into manufacturing components for the wind energy supply chain. Cleveland's unique position as a potential pioneer in offshore wind technology could thrust it into the national or global market, as the city and industry garner expertise and develop technology that can be used to produce offshore wind turbines to withstand harsh Midwestern winters and Lake Erie's frozen surface.

SOLAR

Despite Cleveland's overcast and long winters, solar represents another possible economic driver and there are currently more than 115 businesses and research institutions involved in the solar energy supply chain in Ohio, many of which are located in Cleveland (e.g. Ohio Cooperative Solar, Repower Solutions, Cleveland Solar and Wind etc). Solar innovation harnesses institutional knowledge that stems from a historic manufacturing sector and represents a growth opportunity that responds directly to rapidly growing national demand. The solar photovoltaic's is projected to grow from a \$29.6 billion industry in 2008 to \$80.6 billion by 2018, a prediction premised on that fact that for the past 15 years, the industry has experienced annual growth rates of 30 to 40%. Among the renewable energy technologies, solar photovoltaic

systems (PV) create the most jobs per unit of electricity output and are believed to generate almost eight times as many job-years/GWh as natural gas or coal.¹

As far as benefits of solar energy for households regards, real life cases demonstrate that there is a high potential of money savings. Although different solar technologies as well as their size, location or amount of sunlight entail different benefits, household solar technologies have proven their ability to cut hot water bills by 50% or generate 70% of annual electricity costs.²

BIOMASS AND FUEL CELLS

Energy derived from biomass and the production of fuel cells represents another opportunity for innovation amongst existent Cleveland businesses and new entrepreneurial activity. There are currently more than 60 businesses and research institutions in Ohio that are involved in the biomass industry and over 1,300 wood manufacturing companies in Ohio produce residues that are capable of being converted into biomass energy. Fuel cell technology represents a similarly exciting opportunity for Cleveland and Ohio is cited as among the top 10 states in battery technology, fuel cell technology patents. There are currently more than 115 businesses and research institutions in the state are involved in the fuel cell industry. Ohio's Third Frontier Fuel Cell Program has resulted in the creation or retention of 295 jobs with an average

salary of \$61,651. They also report a leverage ratio of 4.5, meaning that for every dollar spent the state attains \$4.50 in benefits.³ On a national level there is large growth potential for the production of fuel cells, particularly in the areas of heating, ventilation, and air-conditioning (Automotive Electric power generation).

Cleveland is positioned to enter as a highly competitive and productive supplier or part of the supply chain within the Advanced Energy sector, which can also lead to lower energy input costs for Cleveland businesses and households. According to a Deloitte survey, 80% of survey respondents reported that energy costs are a problem for their business' competitiveness while households spend between 5-15% of their income on energy. Lower cost advanced energy produced in Cleveland could lower operating costs for businesses and prevent wealth leakage within communities, helping to alleviate poverty and strengthen the fabric of resilience at the very foundation of a competitive and sustainable economy.

1 Wei, M; Patadia, S.; Kammen, D. (2010), "Putting Renewables and Energy Efficiency to Work: How Many Jobs Can the Clean Energy Industry Generate in the U.S.?" Energy Policy, volume 38, p. 919-931. <http://rael.berkeley.edu/greenjobs>.

2 Costs and Savings of Domestic Solar Energy Systems: Some Facts, May 2010, <http://energy-conservation.suite101.com/article.cfm/costs-and-savings-of-domestic-solar-energy-systems-some-facts>

3 <http://www.fuelcells.org/stateintro.pdf>

EXAMPLES OF AVAILABLE FUNDING AT FEDERAL LEVEL

U.S. DEPARTMENT OF ENERGY

Energy Innovation Hubs⁴

U.S. DEPARTMENT OF TREASURY RENEWABLE ENERGY GRANTS

Granted under the American Recovery and Reinvestment Act and cover up to 30% of the costs for of solar, fuel cells, small wind turbines, geothermal heat pumps, microturbines, combined heat and power projects undertaken by tax-paying entities.⁵

FEDERAL ACCELERATED DEPRECIATION, RESIDENTIAL FEDERAL TAX CREDIT

and other tax incentives.⁶

EXAMPLES OF AVAILABLE FUNDING ON A STATE LEVEL

STATE ENERGY PROGRAM⁷

ADVANCED ENERGY FUND

The Ohio Department of Development's Energy Resources Division administers the Advanced Energy Fund, which has so far made more than \$41.9 million in investment in nearly 400 advanced energy projects.⁸ Another funding opportunity administered by the state is the Ohio Bipartisan Job Stimulus Package – Advanced Energy Component approved in June 2008

(\$150 million) for increasing the development, production, and use of advanced energy technologies in the state.⁹

CITY INITIATIVES

GREEN TECHNOLOGIES BUSINESS GRANT PROGRAM¹⁰

This program is designed to attract and cultivate 'GreenTech' businesses. The grants are targeted toward companies with proprietary technologies who have strong growth indicators and can meet the unique needs of the energy, transportation and electronic industries. Eligible applicants include alternative energy companies, green building product manufacturers, recycled product manufacturers, renewable fuels producers, and others. Approved companies will receive up to \$50,000 per year for three years. The program is available to new and existing green technology businesses that create five or more new jobs in the City.

THE CITY & COUNTY OFFSHORE WIND ENERGY PROJECT BEING LED BY LEED-CO.

This is an important initiative to promote the development of offshore wind projects and to build additional manufacturing capacity within the region around offshore wind capacity and other wind related economic development opportunities. Connects to advanced energy, economic development, manufacturing, R&D, and Operation and maintenance, to get our power through power resources and harnessing our natural resources

sustainably. Estimated costs are \$105,000,000

THE CITY LED MUNICIPAL SOLID WASTE TO ENERGY (MSWE) INITIATIVE

This project is an important economic development, reducing the waste that goes to the landfill, reduces the costs of disposing our waste, and increasing our recycling rate in the City of Cleveland and participating communities from the region. This is a large development project that allows for the development of a large municipal waste recycling and waste to energy facility at the Ridge Road Transfer Station in the City of Cleveland.

ENERGY EFFICIENCY AND ADVANCED ENERGY SPECIAL IMPROVEMENT DISTRICTS

The City and the First Suburbs Consortium recently won the Efficient Gov.org challenge to create Special Improvement Districts for Advanced Energy and Efficiency programs. It is seeking to develop a special improvement district that allows for the voluntary property assessment for energy and energy efficiency improvements. This is an important program to pursue to help bring energy efficiency retrofits to scale along with solar and other advanced energy applications for private property owners.

4 <http://www.energy.gov/hubs/>

5 http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=US53F&re=1&ee=1

6 Global Solar Center, http://www.globalsolarcenter.com/government_incentives/

7 <http://development.ohio.gov/Energy/Incentives/GrantsLoans.htm>

8 <http://development.ohio.gov/Energy/Incentives/AdvancedEnergyFundGrants.htm>

9 <http://development.ohio.gov/Energy/Incentives/GrantsLoans.htm>

10 <http://www.city.cleveland.oh.us/portal/page/portal/CityofCleveland/Home/Government/CityAgencies/EconomicDevelopment/EconomicDevelopmentTechnology/GreenTechnologies>

ADDITIONAL POLICIES supporting the advancement of renewable and advanced energy including additional policies around offshore wind development such as a requirement that a portion of the energy supplied in the statewide Advanced Energy Portfolio Standard (AEPS) be achieved through offshore wind. Cleveland's AEPS is 15% by 2015, 20% by 2020 and 25% by 2025

ILLUSTRATIONS OF CURRENT ENERGY AND MOMENTUM

(FROM CLIMATE OVERVIEW)

SOLAR PANEL INSTALLATION JOBS

Ohio Cooperative Solar, one of the Evergreen Cooperatives supported by The Cleveland Foundation, is installing solar power on institutional buildings while building a business with Cleveland residents.

ENERGY STORAGE

The Great Lakes Energy Institute at Case Western Reserve University is researching a variety of renewable energy and energy storage technologies to promote sustainable energy.

The Ohio Fuel Cell Coalition is promoting Ohio as a center of fuel cell development.

INNOVATIVE START-UP COMPANIES

Local companies are exploring new approaches to clean energy, such as Tremont Electric's approach to kinetic energy generation.

SC2019 STRATEGIC FRAMEWORK: COORDINATING AND ALIGNING INITIATIVES

The Celebrating Progress Action Plan catalyzes action and the Strategic Framework provides a structure to communicate, coordinate, prioritize, and measure progress as action takes place.

PERSONAL &
SOCIAL
ENVIRONMENT

NATURAL
ENVIRONMENT

BUILT
ENVIRONMENT

BUSINESS
ENVIRONMENT

Within each of the four foundations of a sustainable economy, SC2019 has identified two priority areas and three key goals. Taking action toward each targeted goals and priorities will strengthen the foundations and create a fertile soil for economic growth. The strategic framework will define the structure for measuring progress (SC2019 Metrics Framework - Chapter 5.4) and for coordinating activities (as shown in the SC2019 Initiative Design Framework - Chapter 5.3)

THE STRATEGIC FRAMEWORK CAN CONNECT AND ALIGN ACTIONS AND INITIATIVES THAT ARE ALREADY UNDERWAY

The strategic framework provides a structure through which to emphasize strategic priorities, to measure progress, and to highlight both the “how” and the “what” of a sustainable economy. The framework is purposefully broad because strengthening Cleveland’s economic foundations will require work by many people coming from many different perspectives. A challenge this big requires a “by land, by sea, by air” approach.

As SC2019 maps out projects and initiatives that are happening within each of these areas, there can be clear public accountability for what is actually happening, what gets accomplished, and what areas still need work. Stories can be told about what is happening to progress toward each goal, and indicators can be identified that will measure progress.

Chapter 2 goes into more detail about the SC2019 Strategic Framework, including economic context, examples of specific strategies, local projects, and promising practices

KEY NEXT STEP FOR SC2019 STRATEGIC FRAMEWORK

FLESH OUT AND DEFINE STRATEGIES FOR REACHING GOALS IN COLLABORATION WITH KEY STAKEHOLDER GROUPS AND THE SC2019 STEWARDS

STRATEGIC FRAMEWORK

PRIORITY AREAS AND GOALS

Priorities and goals were identified through interviews, through synthesis of existing development plans, through documentation from SC2019 working groups, and through their relevance to Cleveland's key economic challenges.

PERSONAL & SOCIAL ENVIRONMENT

PRIORITY AREA

CULTURE OF COLLABORATION

GOALS

Alignment & Cross-Pollination
 Communicate Progress & Stories
 Collaborative Governments

PRIORITY AREA

CULTURE OF LEARNING

GOALS

Agile, resilient workforce
 Sustainability learning for all
 Entrepreneurial Thinking

NATURAL ENVIRONMENT

PRIORITY AREA

RESTORE AND REGENERATE

GOALS

Value & Leverage Natural Assets
 Healthy, Clean, and Beautiful Environment
 Urban Agriculture

PRIORITY AREA

RADICAL RESOURCE EFFICIENCY

GOALS

Optimize Renewable Energy
 Systemic Energy Efficiency
 Zero Waste

BUILT ENVIRONMENT

PRIORITY AREA

VIBRANT DOWNTOWN & NEIGHBORHOODS

GOALS

Vibrant Walkable Commercial Centers
 Transform blighted land and buildings into assets
 Responsive Local Decision Making

PRIORITY AREA

SMART GROWTH INFRASTRUCTURE

GOALS

Integrate natural systems
 Healthy Buildings
 Sustainable Mobility

BUSINESS ENVIRONMENT

PRIORITY AREA

DISCOVER NEW BUSINESS OPPORTUNITIES

GOALS

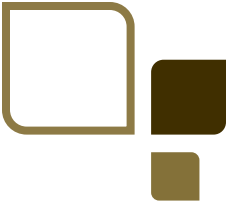
Grow New Businesses
 Implement Sustainable Business Strategies
 Strengthen Local Economy

PRIORITY AREA

RE-TOOL INCENTIVES & REGULATORY SYSTEMS

GOALS

Align Taxes, Regulations, Laws, Codes
 Align & Create Incentives
 Innovative Financing/Funding



INDUSTRY CLUSTERS

INDUSTRY SECTOR STRATEGIES

As the Cleveland area stretches to power up its economic engine in the age of sustainable economy, not only must its existing clusters of firms adopt and apply sustainability practices within their existing production — such as adopt energy and water conserving technologies, make more efficient use of natural resource inputs, green their supply chains, and foster economic inclusion in hiring and procurement — but existing clusters also can engage in innovating the sustainability solutions needed for the future.

KEY STRATEGIES FOR GROWING SUSTAINABLE INDUSTRIES:

- Grow, capture, and harness assets and opportunities
- Use local demand as a driver
- Respond pro-actively and creatively to risks, leakages, opportunities
- Aggregate demand for sustainable products and services
- Bring supply and demand-side together to work toward innovative solutions
- Lobby at the local, state, and national level for proactive legislation that supports sustainability transitions
- Leverage collaboration and new voices
- Leverage and support local economy
- Develop and report on strategic plans for sustainability
- Engage employees in sustainability transition processes

A number of emerging “seed” clusters in the region also can play a key role in innovating new sustainability solutions for the world economy. Seed clusters represent the new sprouts of the economy that have the potential to grow from existing competitive advantages. These seeds can also strengthen the foundations of the economy and create new competitive advantages in the process.

The strongest economic drivers in the coming decades will come from seed clusters where there is strong research capability, there are some firms in the region poised to take commercial advantage of the research, and the cluster in some way benefits from capabilities that derive from existing, mature clusters. The full report also recommends ways that a sustainability framework can strengthen existing expanding clusters and mature clusters of firms.e.

A VISION FOR TOMORROW: “SUSTAINABLE SYSTEMS” CLUSTERS

In the future, using sustainability as a lens, industry sectors may be understood as a part of greater systems that serve to increase our quality of life. Cleveland’s clusters have the potential to evolve into “sustainable systems”. Instead of imagining each industry as a separate entity, industries can work together to create relationships and processes that are more conducive to full product life-cycle stewardship. These new cluster systems could bring together the actors from all stages of a product or service life-cycle in order to foster innovative solutions. For example, a traditional Health Cluster becomes Healthy Lifestyles, which includes prevention as well as treatment. Advanced materials and Advanced Manufacturing come together, recognizing their increasing interdependence as they search for sustainability solutions.

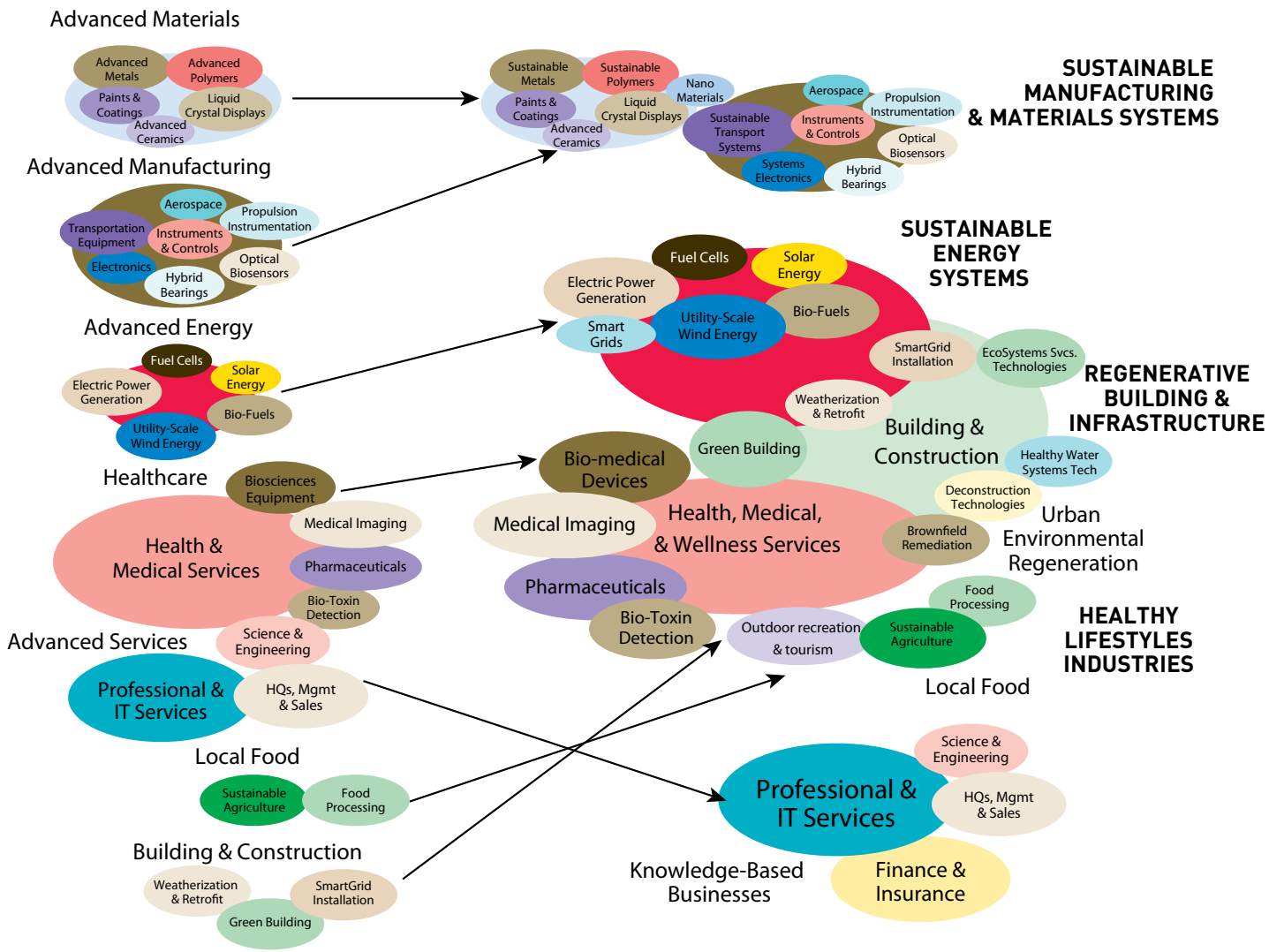
Sections 1.4 and 4.1 include a more detailed description of the evolution of Cleveland’s Clusters and outline some key recommendations.

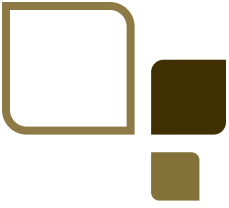
Each cluster “system” listed below would be made up of a diversified portfolio smaller clusters (illustrated on the following page).

- Sustainable Manufacturing & Materials
- Sustainable Energy Systems
- Regenerative Building & Infrastructure
- Healthy Lifestyles Industries

Evolution of Cleveland's Clusters

MODERN CLUSTERS → TOMORROW'S SUSTAINABLE SYSTEMS CLUSTERS





LOCAL ECONOMY

WHAT IS THE ROLE OF THE LOCAL ECONOMY?

LOCAL ECONOMY

1) Unique, locally owned businesses create a distinct sense of place and the context of where people eat, work, and play. They contribute to the basic building blocks of a high quality of life.

2) Strategies that stimulate a steady demand for clean, green, sustainable products and solutions innovated for the local market will create an environment in which these solutions can be incubated, perfected, and then supplied to global markets.

3) Appropriate local import substitution keeps money circulating within the region, which supports greater prosperity and growth of local businesses. In particular, supporting place-based products and products that supply basic needs such as food, energy, and shelter can strengthen regional resilience.

WHAT IS LOCAL?

A local economy can be defined as the sum of transactions conducted by people in a given area with sources as close as possible to where they reside, that satisfy their needs and wants.

WHAT IS A LOCAL BUSINESS?

A business that is owned by Clevelanders and serves primarily local demand

A business that is owned by Clevelanders, but serves primarily national or international markets

A nationally or internationally owned business that manufactures products or produces services here in Cleveland

Regardless of the ups and downs of the global economy, a lot can be done to build a local economy that is more resilient and sustainable by virtue of being rooted in the local community. A local focus should include activities that save people money or activities that encourage people to buy local goods and services. Examples include retrofitting buildings for energy efficiency, implementing new waste management solutions that reuse or recycle materials, implementing ecological restoration projects, and pursuing profit enhancing sustainability strategies within local businesses.

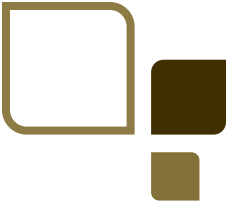
Local economic development activities don't always bring new dollars into the economy (in contrast to developing new businesses that export goods outside the region), but they do keep existing dollars circulating locally. Households in Northeast Ohio spend around 63% of their budgets on housing, energy, transportation, and food - it is not hard to imagine how shifts in spending patterns on those big items can influence the flows of billions of dollars within the region.

A focus on local "self-help" strategies should balance more traditional economic development strategies that are focused on serving global markets. From local food to renewable energy, initiatives are already underway to meet local needs. In addition to the economic standpoint, local strategies also have a high potential to produce social and environmental benefits.

LOCAL FOOD ECONOMY

Through its robust local foods movement, Cleveland is on the way to recognizing co-benefits of local economy by way of better health and wellness and blighted land turned into assets. Urban food deserts will disappear in the wake of flourishing gardens that restore and regenerate air and soil while producing much needed access to fresh fruits and vegetables. Cleveland's nationally-known local chefs and restaurateurs are finding competitive advantage over their national chain counterparts because their menus include local food. Opportunity to transform other need-based value chains such as energy and shelter remain on the horizon for Cleveland and its economy.

A more detailed analysis of the local economy and case study describing the economic potential of the local foods movement can be found in Chapter 4.2



CLIMATE CHANGE AS A DRIVER

How do GHG reduction Strategies fit into SC2019 Celebrating Progress (CP) and the Strategic Framework Priority Areas (PA)?

PROMOTE ENERGY EFFICIENCY

Energy Efficiency (CP)

Resource Efficiency (PA)

Smart Growth Infrastructure (PA)

TRANSITION TO RENEWABLE RESOURCES

Renewable Resources (CP)

Resource Efficiency (PA)

IMPLEMENT SUSTAINABLE MOBILITY OPTIONS

Sustainable Transportation (CP)

Smart Growth Infrastructure (PA)

Downtown & Neighborhood Centers (PA)

CONSIDER SEQUESTRATION OPPORTUNITIES

Green Space (CP)

Restore & Regenerate (PA)

REDUCE WASTE

Zero Waste (CP)

Resource Efficiency (PA)

REDUCE SPRAWL

Vital Neighborhoods (CP)

Smart Growth Infrastructure (PA)

Incentives & Regulatory Structure (PA)

Collaborative Governments (PA)

“The battle against climate change will be won or lost in cities”

– Nicky Gavron, Deputy Mayor of London (2004-2008)

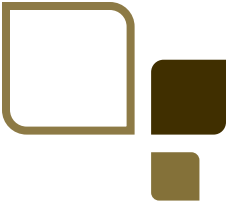
Climate Change is a defining issue of the 21st century. There is an overwhelming scientific consensus that climate change is real and poses a serious threat to the future. Global institutions such as The World Bank, The World Trade Organization, and The United Nations all agree that addressing climate change must be an urgent priority. Global businesses are rapidly becoming advocates for action on reducing Green House Gas (GHG) emissions – they are acting unilaterally to lessen their own carbon footprints and are actively calling on regulators for urgent policy shifts to accelerate market demand for lower carbon products. In the coming years there will be legislation and increasing market pressures around GHG reduction; businesses and local economies that are prepared to meet this challenge pro-actively will have a significant competitive advantage.

Climate change mitigation activities should be at the center of the region’s sustainability planning. If we all do our part and work steadily in the coming years and decades, our cumulative actions will add up to transformational change.

The SC2019 Resource and Action Guide is not specifically a climate action plan, however, embedded in all the celebration points, the priority areas, and the goals are strategies to reduce green house gases. As SC2019 moves forward and strategies, initiatives, and targets are solidified, a Climate Prosperity Action Plan that aligns with SC2019 should be developed.

“Policy makers worry that climate action may cost too much, hurt the economy, eliminate jobs, and become politically unpopular. Yet many of those who are currently working to reduce emissions inside companies and in governments find they are saving money and fostering economic opportunity and competitiveness. Real-world experiences and lessons suggest that we now have win-win options for climate policy that can minimize economic harm and produce significant benefits by generating increased prosperity and improved quality of life.”¹

¹ “The Economic Benefits of Climate Action” November 2007. Convened by the Rockefeller Brothers fund and Global Urban Development in Pocantico Hills, New York



IMPLEMENTATION TOOLBOX: INITIATIVE DESIGN FRAMEWORK

SHAPING INITIATIVES AND SETTING PRIORITIES

In order to align SC2019 initiatives with a common language and a common definition of what is important, the Initiative Design Framework is a useful starting place. It provides a structure that can be used by individuals and organizations to develop their projects in-line with SC2019 values and priorities. It can help existing projects expand their perspective of what is possible.

SC2019 emphasizes not only the “what” of projects, but also the “how.” This focus is key to facilitating the mindset shift that will underpin Cleveland’s transition to a high performance economy that works hand in hand with creating a high quality of life for all.

At the Sustainable Cleveland 2019 Summit in 2009 – and in many other community forums in recent years – the Greater Cleveland community has proposed hundreds of ideas for developing a more sustainable economy.

In a time of limited resources, how does one decide which ideas to pursue? How does one evaluate which ones will have greatest impact. And how does one assure that an idea will be sustainable – advancing economic, social, and environmental goals together?

To fully answer these questions, an evaluation process must be finalized by the SC2019 Stewardship Team. A formalized process will provide a starting point for conversation and a transparent methodology for prioritization. However, community will and subjective interpretation will continue to play a key role in the final prioritization process.

To accelerate the transformation to a more sustainable economy, the implementation tool box includes:

Initiative Design Framework

Metrics Framework

Communication & Branding Guide

INITIATIVE DESIGN & EVALUATION OUTLINE:

The primary questions that need to be asked and answered when designing and evaluating a project or initiative are the following:

1) HOW WELL DOES IT ALIGN WITH SC2019?

- a. Does it align with the Celebrating Progress Year?
- b. Does it fit into our strategic framework?
 - i. Does it support an economic foundation?
 - ii. Is it in alignment with one of the priority areas?
 - iii. Does it help us to achieve a stated goal?

2) WHAT IS THE OVERALL IMPACT ON A SUSTAINABLE ECONOMY?

- a. What is the environmental impact?
- b. What is the social impact?
- c. What is the economic impact?
- d. How is the project/initiative transformational?

3) WHAT IS THE RETURN ON INVESTMENT?

- a. Investment: time, money, energy, effort, reputation
- b. Return: Impact

4) DOES IT HAVE COMMITTED LEADERS AND GOOD PARTNERSHIPS

- a) Does it have a technical leader and an influence leader?
- b) Does it leverage interesting partnerships?

For more information on the Initiative Design Framework, see Chapter 5.3

INITIATIVE DESIGN FRAMEWORK SUMMARY

INITIATIVE “POST CARD” FORMAT

FOUNDATION	Which Foundation or Foundations does it fall under?
CELEBRATION POINT	Does it relate specifically to a Celebration Point?
PRIORITY AREA	What priority Area or Areas does it address?
INITIATIVE SUMMARY	Short Description (up to 300 characters)
PRIMARY GOAL AREA	What goal or goals does it address?
UPFRONT COST	Initial Start-up cost
ANNUAL COST	Yearly Maintenance
TYPE	What initiative types is it? (see Descriptions)
TIME FRAME	When will benefits be realized? Quick-win, Medium term, Long term, On-going?(see Descriptions)
EFFORT REQUIRED	Soft Effort (not money) (See Descriptions)
CHAMPIONS	Technical Leader, Leader of Influence
PARTNERS/ COLLABORATORS	Partnerships
POTENTIAL FUNDING	Creative Sources of Funding
CO-BENEFITS	Priority Areas or Goals
TRANSVERSAL	Equity, Carbon, Health
POTENTIAL IMPACTS	(See Descriptions)
BUSINESS OPS	Potential for Entrepreneurial Activities
ADDITIONAL QUESTIONS	Longer Descriptions of how it effects the following areas:
SOCIETY	How does it improve the strength of the community?
ECONOMY	How does it improve the economy?
ENVIRONMENT	How does it improve the environment?
PROCESS	How is the process transformational?

EXAMPLE POST CARD

COLLABORATIVE CAMPUS NEIGHBORHOOD PROJECT

FOUNDATION	Personal & Social Environment
PRIORITY AREA	Culture of Learning
INITIATIVE	Facilitate sustainability awareness, applied learning opportunities, school-to-career and policy enrichment in the Preschool, K-12 and 12-16 education sector in order to create sustainable neighborhoods.
GOAL	Sustainability learning for all
TYPE	Learning
TIME FRAME	Up to 5 years with milestones to be met every 12-months
EFFORT REQUIRED	As an idea, this initiative requires significant commitment among leaders to fully develop a business model for this idea – and then to implement the plan.
CHAMPIONS	Michael Schoop, Tri-C Metro Compus and Terrell Pim, CWRU
PARTNERS/ COLLABORATORS	Roger Saillant, Fowler Center for Sustainable Value, Peter Whitehouse CWRU, Nancy Meyer-Emerick CSU
POTENTIAL FUNDING	County/state/federal government and foundation grants
CO-BENEFITS	Vibrant Downtown & Neighborhoods; Agile Workforce
TRANSVERSAL	Equity, Carbon, Health
BUSINESS OPS	Curriculum that can be resold



IMPLEMENTATION TOOLBOX: METRICS AND COMMUNICATION

METRICS FOR MEASURING PROGRESS

Even after selecting the most promising ideas in the coming years, how will SC2019 participants know that initiatives are indeed achieving intended outcomes and strengthening the foundations for a vibrant city and economy? A system for monitoring and reporting will be needed to track progress and provide feedback for future decisions.

The SC2019 Action Guide recommends three levels of measurement to track progress toward a sustainable economy.

1) Over-all Cleveland Sustainable Economy Indicators: Is the economy improving, are peoples lives improving, is the environment improving, is Cleveland’s carbon footprint decreasing? Are Cleveland businesses reporting on their progress toward sustainability? How does Cleveland communicate its progress?

2) SC2019 Indicators: Is Cleveland making progress toward achieving goals within each priority area of the strategic framework? What types of indicators make sense? How is progress toward each goal linked to the big picture? How does SC2019 communicate its progress?

3) Project Indicators: Are SC2019 projects successful by their own criteria? How many projects have been completed, how many have been successful? What are the lessons learned? How are the successful projects impacting SC2019 goals and priorities?

Choosing the right indicators and the right targets must be a participatory process and must be convened and finalized by the SC2019 Stewardship structure.

CLEVELAND SUSTAINABLE ECONOMY INDICATORS

There are a number of existing and emerging sets of sustainability indicators. For example, one of the most promising new systems for local governments is the STAR Community Index, which is being developed by ICLEI (ICLEI.org)—Local Governments for Sustainability in conjunction with the U.S. Green Building Council. In addition, SC2019 must develop a rigorous capacity for tracking carbon emissions, both for city operations and the larger community. Finally, SC2019 process should encourage more businesses to participate in voluntary sustainability reporting using tools such as the Global Reporting Initiative (GRI).

SC2019 INDICATORS

The indicators should be selected by an open, participatory process. They should be easy to understand, have data readily available, and should be reliable bellwethers of key sustainability trends. Ideally, it will be possible to collapse the indicators into a single index or number, so the public can easily track progress being made toward each goal.

Measuring Progress is discussed in more detail in Chapter 5.4 and examples are included in the appendix

NEXT STEPS:

1) SELECT RELEVANT INDICATORS FOR SC2019

Assign accountability, find data partners, design & facilitate democratic process, collect data, use starter-kit templates (see Metrics Appendix)

2) DESIGN A DISPLAY AND REPORTING MECHANISM (DASHBOARD)

Design innovative displays, create benchmarks against other cities

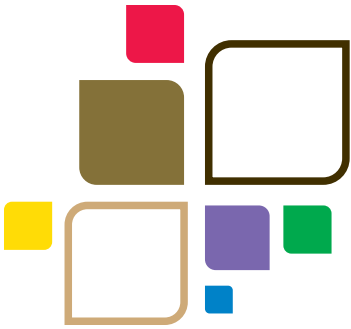
3) SUPPORT AND INCENTIVIZE GOVERNMENT, BUSINESSES, INDUSTRIES TO CREATE PUBLIC SUSTAINABILITY REPORTING PROCESSES

Support Government Collaboration Toward Comprehensive Sustainability Reporting

Support Organizations developing their own Environmental Management Systems

Track Carbon Emissions through the Supply Chain

Promote Corporate Social Responsibility Reporting



The Brand Elements are the cornerstone of the Sustainable Cleveland brand. The iconic shape is symbolic of both the seeds we plant and the life that emerges from them. Working together, they can create endless combinations, depicting root systems, plantlife, ecological systems, urban plans. They can work together to describe life, growth, creativity and expressions of freedom. The Brand Element system may take on one primary form to become the SC2019 Initiative logomark, or it may choose to work freely, allowing the power of the color and shapes to represent the brand while remaining in a state of constant evolution.

COMMUNICATIONS AND BRANDING

Sustainable Cleveland 2019 is an opportunity to involve more people in shaping the future of the city, as well as an opportunity to redefine Cleveland's image and dispel the negative images of the past.

To succeed in reaching out to a broad audience, it will require a compelling brand identity that resonates with people's vision for a new city, and a web-based clearinghouse of information about all the activities related to the SC2019 process, and a creative outreach plan that communicates with a wide range of stakeholder groups. The complete strategic plan report provides guidance on the development of each of these items.

KEY ACTION STEPS FOR COMMUNICATION:

1. ESTABLISH CLEAR AND EFFECTIVE PORTALS FOR COMMUNICATION AND RESOURCES

.....
Create community dashboards to communicate progress

.....
Improve a website for communication
.....

2. DEVELOP AND LAUNCH A BOLD PR CAMPAIGN (INCLUDING A MULTICULTURAL FOCUS)

3. ALIGN & MOBILIZE CHAMPIONS AND AMBASSADORS

.....
Design & Host Action Alignment workshops to align stakeholder groups with the SC2019 Action guide

.....
Continue to update and compile 2019 Aligned Initiatives

.....
Recruit and train Ambassadors
.....

4. DEEPEN & INTEGRATE BRANDING

5. DEVELOP AND IMPLEMENT COMPREHENSIVE PLAN FOR CELEBRATING PROGRESS

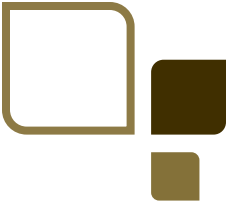
RECOMMENDED NEXT STEPS FOR IMPLEMENTATION

In the two and a half months allotted for the development of this strategic action guide, it was possible to develop only the general outline of the implementation strategy. Thus, a lot of work remains to flesh out the details. In the coming months, it is recommended that 2019 participants:

1. FINALIZE THE SC2019 STEWARDSHIP STRUCTURE

2. FINALIZE CRITERIA FOR SHAPING AND PRIORITIZING INITIATIVES

3. FINALIZE METRICS SYSTEM FOR TRACKING PROGRESS



SC2019 SUPPORTING STRUCTURES

POINTS OF ENTRY & ACTION

- 1) Participate in SC2019 Celebrating Progress Events

- 2) Learn about SC2019 principles, priorities, and goals; align your efforts, make a commitment, communicate your activities

- 3) Join one of the SC2019 Stewardship Networks (there is a place for everyone)

- 4) Share your story, tell your friends, be an advocate

NEXT STEPS FOR VARIOUS STAKEHOLDER GROUPS ARE ORGANIZED AROUND THE FOLLOWING THEMES:

- Participate in Celebration Points

- Lead by Example

- Collaborate

- Use Purchasing Power

- Learn

- Make it fun

OFFICE OF SUSTAINABILITY

City Department with a mandate to support sustainability within the city government and in Cleveland in general.

THE STEWARDSHIP COUNCIL & THE EXECUTIVE STEWARDSHIP TEAM

This group of business leaders, institutional leaders, and community leaders will advise, support, and maintain focus on the journey to 2019.

SC2019 COLLABORATIVE

The Collaborative consists of all components of SC2019: both the formal and informal structures, and all of the projects that are sponsored by SC2019 and those that are endorsed as projects aligned with SC2019.

SC2019 INTEGRATION TEAM

A nimble staff that will be masters of SC2019 information and collaboration. A point of connection and integration.

STEWARDSHIP NETWORKS

Networks that focus on one of the four foundations of the strategic framework: Personal & Social Environment, Natural Environment, Built Environment, and Business Environment. They will work together to support, track, and report on progress within each of these areas.

CELEBRATING PROGRESS COMMITTEES

Every Celebration Point will have a go-to committee that will be coordinating events, media, participation, etc.

SC2019 WORKING GROUPS

The Sc2019 working groups are communities of practice which originated from the 2009 SC2019 Summit. They are focused on specific topics and vary in structure depending on the need. They are dynamic and can change based on momentum and specific objectives. They can be both a resource for collaboration and a support system for specific projects championed by individual Working Group members.

STEWARD ORGANIZATIONS & INSTITUTIONS (NGOS)

There are many organizations and institutions in the Cleveland area that are already working effectively on sustainability issues; they can provide resources and points of participation and collaboration.

BUSINESS CHAMPIONS

Many businesses in Cleveland have been leaders sustainability for years, and many more excited to take part in the transformation. As businesses endorse SC2019, they will become SC2019 Champions both as leaders and as learners.

SC2019 POINTS OF ENTRY & ACTION

SC2019 is for every individual and organization interested in joining the effort to create a new sustainable economic engine that works for everyone – and there are many ways to get involved depending upon what your interest may be.

CELEBRATING PROGRESS AND ACCOMPLISHMENT

If you are interested in events that spotlight and celebrate the on-going progress and accomplishments of SC2019, join or create a Celebration Committee and be part of what creates a culture of pride in Cleveland. Open to all, these adhoc committees will help organize and conduct a variety of celebration points over the course of SC2019.

Yearly Celebration Points focus on “year of” points and are forums for communicating and celebrating accomplishment and for promoting the conversations and stories about Cleveland that will transform the City.

Structure of Celebrating Progress events — anyone is welcome to create their own spin-off events and give voice to potentially game-changing ideas and perspectives that are on the fringe of mainstream.

Bi-annual summits are forums to align vision, focus actions, and engage new individuals and organizations.

LEARN & CONTRIBUTE EXPERTISE

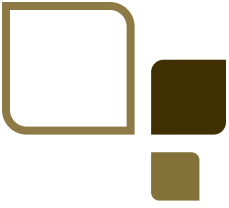
If you are interested in being an active member of an action learning community and deepening and contributing your expertise to SC2019, join a community of practice. Connected with the four sustainability foundations (human & social environment, built environment, natural environment, and business environment), communities of practice provide a forum to share your expertise and to learn and grow in ways that benefit you.

SPREAD THE WORD

If you are interested in helping spread the word about SC2019 within your community, contact the Integration team to see if you can become part of an Ambassador Team. These two-person teams will have a deep understanding of the Initiative and how it is relevant to different stakeholders and act as ambassadors of the Initiative to their communities and organizations.

SHARE YOUR STORIES

If you are interested in sharing your story, contact the Integration Team or visit the SC2019 website.



A ROLE FOR EVERYONE...

CONCLUSION...AND A ROLE FOR EVERYONE

This strategic plan is intended to be a framework for guiding future action in a changing world. It offers an approach for applying the principles of sustainability to find economic opportunities.

While this approach should remain consistent in the future, it's important to realize that the lists of specific goals and initiatives in the plan are just a snapshot of the kinds of actions that make sense today — illustrations of the current possibilities. Such lists of recommendations will change as conditions change — and should change if we are to have an adaptive, resilient economy. So this plan should be seen as a dynamic work in progress. It should be updated continually between now and 2019.

Finally, it is hoped that everyone in Cleveland and throughout the region will find elements in this plan that are relevant and inspiring at home, at work, or as an engaged citizen in any capacity. The ideal is for everyone to align their determined efforts with vision of a prosperous economy based on a high quality of life, an improving environment, and human health and well-being.

WHAT EVERYONE CAN DO...

- PARTICIPATE IN CELEBRATION POINTS**
- LEAD BY EXAMPLE**
- COLLABORATE**
- USE PURCHASING POWER**
- LEARN**
- MAKE IT FUN**

GOVERNMENT

- PRIORITIZE GREEN PROJECTS
- LEAD BY EXAMPLE
- USE POWER OF PROCUREMENT TO FOSTER STEADY DEMAND FOR SUSTAINABLE SOLUTIONS AND BUSINESSES
- USE SOCIAL CAPITAL TO ENDORSE AND PROMOTE SUSTAINABILITY EFFORTS AT ALL LEVELS

BUSINESS

- FIND NEW BUSINESS OPPORTUNITIES IN SUSTAINABILITY SOLUTIONS
- TRANSITION TO SUSTAINABLE PRACTICES AND PRODUCTION METHODS

ALIGN WITH SC2019 FOR EFFECTIVE CORPORATE CITIZENSHIP

ENGAGE IN CREATIVE PARTNERSHIPS AND COLLABORATION

REWARDS INNOVATION & EXPERIMENTATION

COMMUNITY ORGANIZATIONS

LOOK FOR WAYS TO PARTNER AND COLLABORATE WITH OTHER ACTORS ON SPECIFIC SUSTAINABILITY INITIATIVES

ALIGN ACTIVITIES WITH SC2019 VISION, ACTION PLAN, AND STRATEGIC FRAMEWORK

HELP SHAPE INITIATIVES THAT HAVE MULTIPLE BENEFITS AND CATALYTIC POTENTIAL

FIND WAYS TO SUPPORT BUSINESS
GROWTH OPPORTUNITIES IN
SUSTAINABLE SOLUTIONS
.....
HELP SUPPORT BUSINESS TRANSITION
TO SUSTAINABLE PRACTICES
.....

FUNDERS

ALIGN WITH CELEBRATING PROGRESS
AND THE STRATEGIC FRAMEWORK
.....
USE THE INITIATIVE DESIGN
FRAMEWORK TO HELP GRANTEEES
ALIGN WITH SC2019 WHEN SHAPING
THEIR INITIATIVES
.....
EMPHASIZE INNOVATIVE FINANCING
MODELS – SELF-FUNDING, MICRO
FUNDING, BUNDLING UNUSUAL
FUNDING STREAMS, AGGREGATING
FOR VALUE
.....

HOUSEHOLDS

UNDERSTAND HOW YOU CAN MAKE
MONEY, SAVE MONEY, AND INVEST

MONEY THROUGH SUSTAINABILITY
.....
ENGAGE IN SMALL EFFORTS THAT ARE
ALIGNED WITH GREATER COMMUNITY
ASPIRATIONS
.....
WORK TO INCREASE THE SENSE OF
NEIGHBORLINESS AND CONNECTION
TO COMMUNITY
.....
HOLD GOVERNMENT AND BUSINESS
ACCOUNTABLE FOR PROMISES
.....
INCREASE DEMAND AND ACTION FOR
ENVIRONMENTAL JUSTICE
.....