Canal Innovation Corridor

NYS Meta-Regional History and Current Need for an Upstate Transformational Network
NYS Meta-Regional History
800: Iroquois Enter NYS
1500s: Five Nations
1609: Dutch East India Co.
1664: England Claims for Duke of York
1700: Rochester’s First Settlement
1783: Revolutionary War Ends

Westward Migration Increases
1789: Buffalo - first settlement
1794: The Great Genesee Road
1825: Erie Canal Completed
1954: NYS Thruway
1500s: Five Nations

1700: Pioneers migrate west, widen Iroquois footpaths to accommodate wagons and sleds

1784: NYS earned regional brand-name “The Empire State” for industrial innovation

1790: Era of the Turnpikes, begin construction of Route 20

1825: Erie Canal

1831: Railroads

1924: Route 5 assigned as a true cross-state highway

1954: NYS Thruway

1985: Fiber Optics
Prescribed need for meta-regional networking today...

- EDA Report
- Cluster Theory
- Silicon Valley
- CONNECT ™
- Legacy Assets
- “Task Force on Diversifying the New York State Economy through Industry-Higher Education Partnerships” - Final Report, 2010
- Rural Transformational Network
- The Power of SUNY
Proposed $100 million appropriated in fiscal year 2010 for the Economic Development Administration of the Department of Commerce to support regional innovation clusters and associated business incubators.

“The United States requires innovation policies for which responsibility is shared between regional leaders and the federal government...”
Positive externalities: benefits shared by a whole community, not just one firm

European Union

South Korea

This concept is not new…
Cluster Theory

- **Champion:** Michael Porter

- **University Connection:** Harvard Business School, The Institute for Strategy and Competitiveness

- **Activities:** U.S. Cluster Mapping Project, International Workshops, Initiative for a Competitive Inner City
Key Concepts: “Clusters are geographic concentrations of interconnected companies, specialized suppliers, service providers, and associated institutions in a particular field that are present in a nation or region. Clusters arise because they increase the productivity with which companies can compete. It should be clear that clusters represent a combination of competition and cooperation.” (Source: Porter)
Snapshot of US Innovation Clusters
-A selection of high-tech clusters in different parts of our country-

Source: Cluster Mapping Project, Institute for Strategy and Competition, Harvard Business School
Silicon Valley

- **Champion**: “Father of Silicon Valley”: Frederick Terman

- **University Connection**: Stanford University

- **Activities**: ongoing business-university interaction, Stanford Industrial Park, formal and informal networking, open job markets
**Key Concepts:** “The region and its relationships rather than the firm, define opportunities for individual and collective advances in the Silicon Valley.”
(Source: Saxenian)
CONNECT™

- **Champion**: Richard Atkinson, David Hale, Irwin Jacobs, Dan Pegg, Lea Rudee, Mary Walshok, Bob Weaver and Buzz Woolley
- **University Connection**: UCSD
- **Activities**: Research institution support, business creation and development, entrepreneurial learning, access to capital, public policy advocacy, awards, recognition and networking
Key Concepts: Recognize the importance of certain factors in a business environment; modeled after Silicon Valley; membership networks link organizations with the resources they need for success
Champion: Susan Christopherson

University Connection: Cornell University, City & Regional Planning

Activities: catalog regional legacy assets and identify phoenix industries, “Manufacturing: Up from the Ashes” and Canal Corridor Study
Key Concepts:

-Legacy Assets: structures put in place during a previous period of growth and development which have the potential advantage to help create another growth and development period.

-Phoenix Industries: industries that have the “initial advantage”; benefit from pre-existing personal networks, technical skills, and market knowledge that have developed over a long time; the products of investments in R&D and the workforce made during the heyday of American manufacturing, from the 1950s to the 1970s.
Diversifying the New York State Economy through Industry-Higher Education Partnerships

- **Champion**: Governor David A. Paterson and David J. Skorton

- **University Connection**: SUNY System and Cornell University

- **Activities**: The report seeks to address the question, *how can New York more effectively harness its substantial university-based innovation assets to drive sustainable economic growth?*
Diversifying the New York State Economy through Industry-Higher Education Partnerships

- **Key Concepts**: “innovation ecosystem”
  - Universities
  - Industry
  - Access to capital
  - Business services
  - Critical mass
  - Government policies
  - Communication Networks
## Findings:

<table>
<thead>
<tr>
<th></th>
<th>New York</th>
<th>California</th>
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<tbody>
<tr>
<td>Total Research Spending</td>
<td>#2 Nationally ($4 billion)</td>
<td>#1 Nationally ($6.5 billion)</td>
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<tr>
<td>% of National Venture Capital Attracted</td>
<td>4 %</td>
<td>47%</td>
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<tr>
<td>New Companies Incubated by State Colleges</td>
<td>35</td>
<td>58</td>
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<tr>
<td>Companies on Deloitte Technology Fast 500 List</td>
<td>11</td>
<td>169</td>
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</table>
State University of New York

- **Champion:** Chancellor Nancy L. Zimpher

- **University Connection:** SUNY system

- **Activities:**
  - Phase I: Campus visits
  - Phase II: Strategic Planning Steering Committee
  - Phase III: Launch
  - Phase IV: Implementation & Assessment
Key Concepts: statewide collaborative process to develop and implement a SUNY-wide strategic plan that will guide the State University of New York for the next five years.
A Broad-based Model to Capture all regional potentialities through...
Transformational Networking: requires deeper relationships to be built so that new and innovative ideas will emerge for the good of the organization and community

Generative Dialogue: helps develop dynamic plans through the bringing together of interdependent teams and networks

Parallel Processes:
How does economic development for NYS look today?
Economic Development Entities

- Buffalo Niagara Enterprise
- Greater Rochester Enterprise
- P4P
- Center State CEO
- Economic Development Growth Enterprise
- Center for Economic Growth
Mission: “Attract capital investment and quality jobs…”

Plan: Market Buffalo Niagara regional assets in targeted industry clusters

Emphasis: Life Sciences, Machinery and Transportation Equipment, Green Energy, Call Centers/Back Office, Agribusiness and Information Technology
## Buffalo Niagara Enterprise - Industry Clusters -

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Study</th>
<th>Researcher</th>
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<tbody>
<tr>
<td><strong>Call Centers/Back Office</strong></td>
<td>“Locating Customer Contact Centers and Back Office Operations in Western New York State”</td>
<td>Moran, Stahl &amp; Boyer, LLC</td>
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<td><strong>Agribusiness</strong></td>
<td>“Agriculture-Dependent Economic Development for Western New York State”</td>
<td>Informa Economics, Moran, Stahl &amp; Boyer, LLC</td>
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<tr>
<td><strong>Information Technology</strong></td>
<td>“Buffalo Niagara Region Industry Cluster Profile-Information Technology”</td>
<td>Published by the Erie County Industrial Development Agency</td>
</tr>
</tbody>
</table>
Greater Rochester Enterprise

- **Mission**: “Retain and expand…business attraction and collaboration”
- **Plan**: Upstate Technology Corridor
- **Emphasis**: Aerospace, Defense & Security, Imaging, Optics and Photonics, Life Sciences, Renewable Energy and Clean Technology, Nanotechnology
Mission: “Partnership, Planning, and Problem-solving”

Plan: “Essential NY Initiative”--Technology Development

Emphasis: Environmental Technology, Biosciences, Digital and Electronic devices, Precision Metal Working, Packaging and Knowledge/Learning Industry
Economic Development Growth Enterprise
Mission: “Attract, Assist, Act”

Plan:

Emphasis:
Center for Economic Growth

- **Mission**: “Grow, Attract, Prepare”
- **Plan**: “Advancing Tech Valley Initiative”
Pipeline for Progress
Mission: “Creating, Attracting, Retaining”

Plan: Sustainable economic growth stems from centers of intellectual capital

Emphasis: Computer & Electronics Products, Transportation Equipment, Fabricated Metal Products, Furniture & Related Products, Chemical Manufacturing
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<tr>
<th>BNE</th>
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<tr>
<td>Bio/Life Sciences</td>
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<td>Optics and Photonics</td>
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Canal Innovation Corridor
Recommendations

- **Political Champion(s):** NYS Governor, Upstate Congressional Coalition
- **University Champion:** Cornell University and/or SUNY system
- **Cross Regional Intermediary:** Cornell Cooperative Extension
- **Government Coordination:** policy support and incentive development
References

Websites:
- History of Routes 5 & 20- http://www.routes5and20.com/
- New York State Department of Transportation- https://www.nysdot.gov/divisions/operating/opdm/passenger-rail/passenger-rail-service/history-railroads
- Digging Clinton’s Ditch- http://xroads.virginia.edu/~MA02/volpe/canal/impact.html
- Dutch Colonies- http://www.nps.gov/history/nr/travel/kingston/colonization.htm
- Global Rural Network Project- http://www.grnp.org/
- Buffalo Niagara Enterprise- http://www.buffaloniagara.org/
- Center for Economic Growth- http://www.ceg.org/

Articles/Reports:
- “The Geography of Innovation; Federal Government and the Growth of Regional Innovation Clusters” by: Jonathan Sallet, Ed Paisley and Justin Masterman
- Location, Competition and Economic Development and Economic Development: Local Clusters in a Global Economy by: Michael Porter
- Task Force on Diversifying the New York State Economy through Industry-Higher Education Partnerships- FINAL REPORT, Submitted December 14, 2009 by: David A. Paterson & David J. Skorton
- Regional Advantage: Culture and Competition in Silicon Valley and Route 128 by: AnnaLee Saxenian
- Fairchild Semiconductor and its Influence,” in Chong-Moon Lee, William Miller, Marguerite Hancock, and Henry Rowen, eds., The Silicon Valley Edge: A Habitat for Innovation and Entrepreneurship by: Christophe Lécuyer
- Understanding Silicon Valley: The Anatomy of an Entrepreneurial Region by: Martin Kenney
- Manufacturing: Up from the Ashes by: Susan Christopherson
- The History & Culture of Iroquois Diplomacy by: Francis Jennings, William Fenton, Mary Druke & David Miller