

Rutgers Climate Symposium 2020
Public Universities and Transformative Climate
Action for A Just Recovery
*Building Capacity for Transformative Climate
Action*

Kevin Lyons, Ph.D.

Associate Professor/PP

Rutgers Business School

Supply Chain Management Department

Director, Public Private Community Partnerships

Emission Reduction Impacts of Public University

100% carbon-free energy by 2050

- Establishing a baseline inventory of university greenhouse gas emissions, climate vulnerabilities, and ongoing climate-related activities
- Identifying potential climate solutions for investigation
- Assessing potential climate solutions

Examples:

- Campus afforestation projects CO2 equivalent storage of 14,680 MT.
- Annual recycling rate of 62% (saving 4033 MT CO2, 9M gallons water)
- LEED Certifications: Business School (Silver), Chemistry (Gold), Engineering (Gold), Rutgers Honors College (Silver), Rutgers Academic Building (Silver), Rutgers Sojourner (Silver)=3469 MT CO2 savings
- Each building is designed to consume at least 20% less water than a comparable building.

Why consider the environment?

Supply Chain Management with a 'DfE' mindset can:

- Reduce energy and water consumption (which can reduce costs)
- Improve resource use efficiency
- Reduce waste (which can reduce waste disposal costs)
- Reduce environmental health impacts of goods and services (Social Determinants of Health).
- Potential post-consumer feedstock

Potential Benefits:

- Improves Agility
- Increases Adaptability
- Promotes Alignment
- Bring Value

A Sustainable Livingston Campus



- seven-acre solar energy facility that provides about 10 percent of the power needs of the Livingston Campus;
- 32-acre solar canopy energy system to be completed in summer 2012 that generates 45% of Livingston Campuses electrical needs;
- geothermal system for heating and cooling of the Business School building;
- the creation of artificial wetlands and planted areas and installation of a biofiltration system to capture storm-water runoff that would otherwise wash into sewers and the river;
- creation of naturalized meadows around campus that save energy, reduce pollution, and cut down on the use of fertilizers;
- an improved pedestrian- and bicycle-friendly circulation network;
- reduced reliance on automobiles and increased emphasis on mass transportation use of electric scooters, etc.; and
- accessible recreational amenities and green spaces, including integration of the Rutgers Ecological Preserve into the campus design.

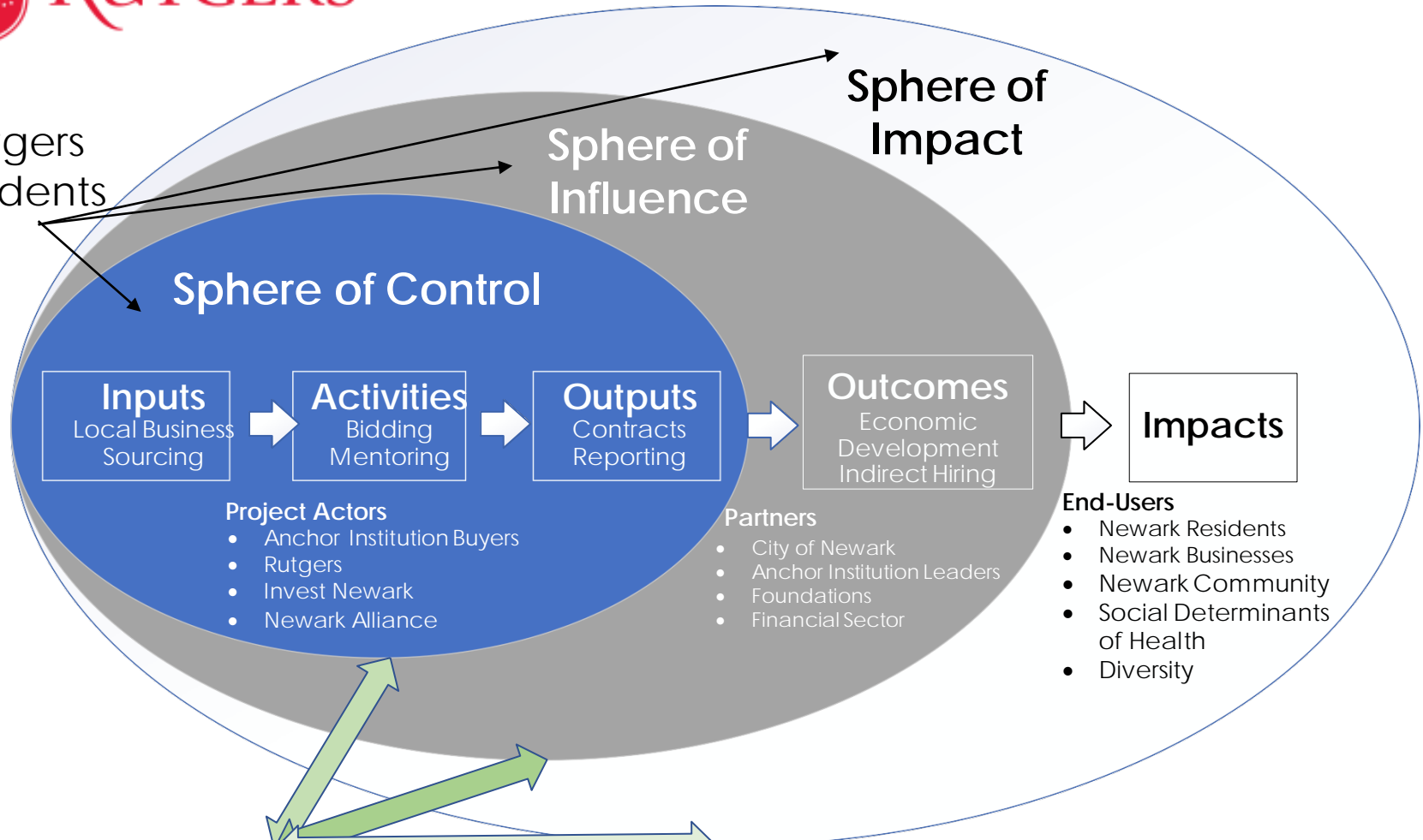
Transformation to a Just Recovery



- University and Anchor Institution Scope of Influence
- Buy Local Strategy (Newark 2020; Buy, Hire Live Locally)
 - Source Locally (created a diverse and sustainable Newark Supply Chain)
- Green Local Economy - Business Gaps and Collaborations
- Diverse Supplier Mentorship Dashboard
- Accelerate innovation to improve productivity, processes and green product development
- Promote sustainable supply chains & resource efficiency
- Convert and create green manufacturers and businesses to new market opportunities
- Develop multi-sector resident to workforce pipelines
- Anchor Local Sourcing and GPS Mapping of Opportunities
- Identify supply gaps and develop local businesses
- Serve on Newark's Equitable Growth Commission



Rutgers Students



Anchor Institution Research Center

- Supply Chain Research
- Training and Coaching
- Technical Assistance
- Performance Tracking and Reporting
- Public Interfacing
- NAC Procurement Guide (Sourcing Strategies)
- Business Assessment and Mentorship Framework



Anchor Institution Reporting

- Develop and Sustain Institutional Buy Local Strategy
- Report on the Strategy and Goals
 - Contract Opportunities and Outreach
 - Contract Awards
 - Annual Spend
 - Annual Spend in Newark

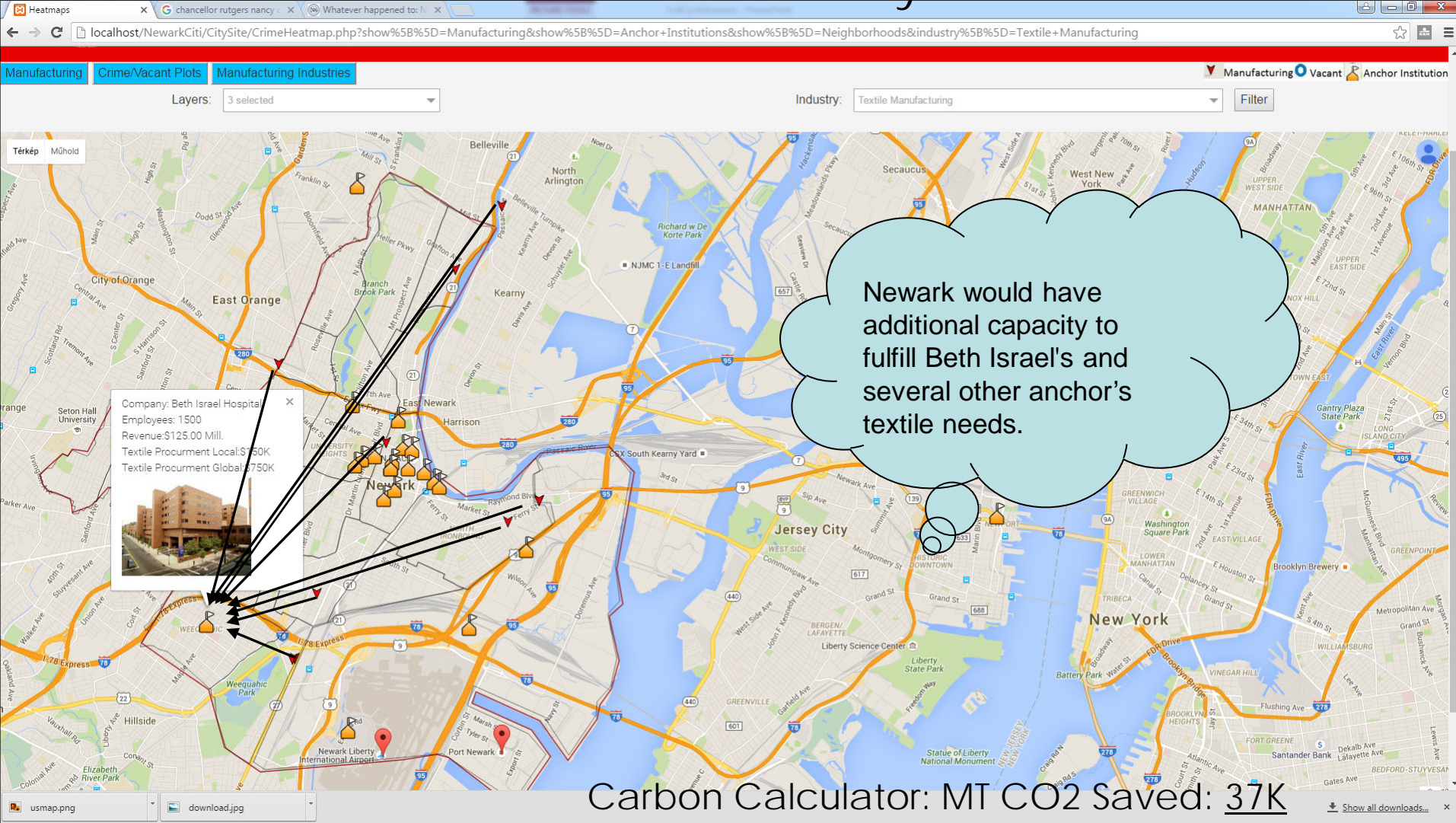
Newark Anchor Procurement Buy Local Carbon Impact Dashboard

The screenshot displays a web application interface for a Newark heatmap. At the top, there are navigation tabs for 'Manufacturing', 'Crime/Vacant Plots', and 'Manufacturing Industries'. The 'Industry' dropdown is set to 'Textile Manufacturing'. A 'Layers' menu shows '3 selected'. A search bar contains 'Térkép Műhold'. The main map area shows Newark, NJ, with several orange markers indicating textile manufacturing locations. A callout box for 'Company: Beth Israel Hospital' shows 'Employees: 1500' and 'Revenue: \$125.00 Mill.'. A yellow callout box states: 'Textile Procurement Local: \$150K' and 'Anchor Total Procurement: \$5Mill.'. A large sunburst chart on the right shows 'Primary Industry: Textile Manufacturing' with '9 Companies', 'Total Employees: 170', and 'Output Capacity: \$15 Million'. The chart lists various sub-industries like 'Wood Product Manufacturing', 'Architectural & Structural Metals Manufacturing', etc. A light blue text box on the right says: 'Our system can show a simulation of a Beth Israel's textile procurement. There are 9 companies in textile manufacturing in Newark employing 170 people with potential capacity of \$15 Million'. A light blue text box at the bottom left says: 'If Beth Israel procured \$150K worth of textile products from 2 local manufacturers'. The browser address bar shows the URL: localhost/NewarkCiti/CitySite/CrimeHeatmap.php?show%5B%5D=Manufacturing&show%5B%5D=Anchor+Institutions&show%5B%5D=Neighborhoods&industry%5B%5D=Textile+Manufacturing.

Data & Analytics Infrastructure Newark Industrial Solution Center

<http://cimicapp.rutgers.edu/newark/CrimeHeatmap.php>

Newark Anchor Procurement Buy Local Dashboard

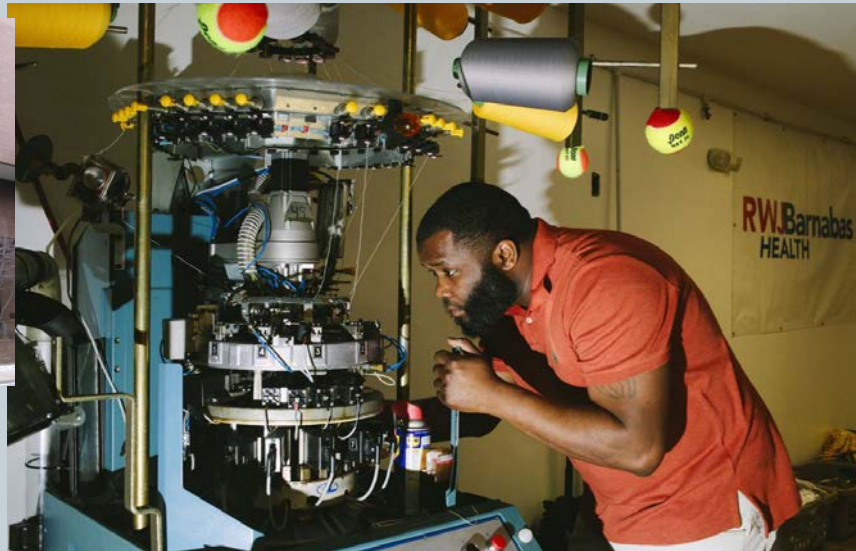


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A New Role For Hospitals: Boosting the Local Economy

More health-care facilities are helping to improve the well-being of residents by hiring and buying in communities



- Now manufactured in Newark (instead of overseas)
- Addition of 6 (15) Newark residents/staff
- Finalizing negotiations to expansion to more RWJ/ Barnabas NJ locations – resulting in 200% increase in volume

Khalif Thomas—was operating Rock Ya Sock, a small side business making novelty and sports-themed socks—in addition to working as an HVAC mechanic at Newark Beth Israel Medical Center in Newark. PHOTO: JOHN TAGGART FOR THE WALL STREET JOURNAL

Building Capacity for Transformative Climate Action

- **Main Challenge:** To increase efficiencies throughout our operations and supply chain while building healthy on/off campus relationships (the campus is "of" the Community).
- **Competencies Needed:** Expertise in techniques such as carbon management and life cycle assessment. The ability to redesign operations to use less energy and water, produce fewer-to-zero emissions, and generate less waste. The capacity to ensure that students, faculty, staff, and our business relations make eco-friendly decisions.
- **Innovation Opportunities:** Developing local and sustainable sources of raw materials and components. Increasing the use of local clean energy sources such as wind and solar power. Institute the full campus circular economy.