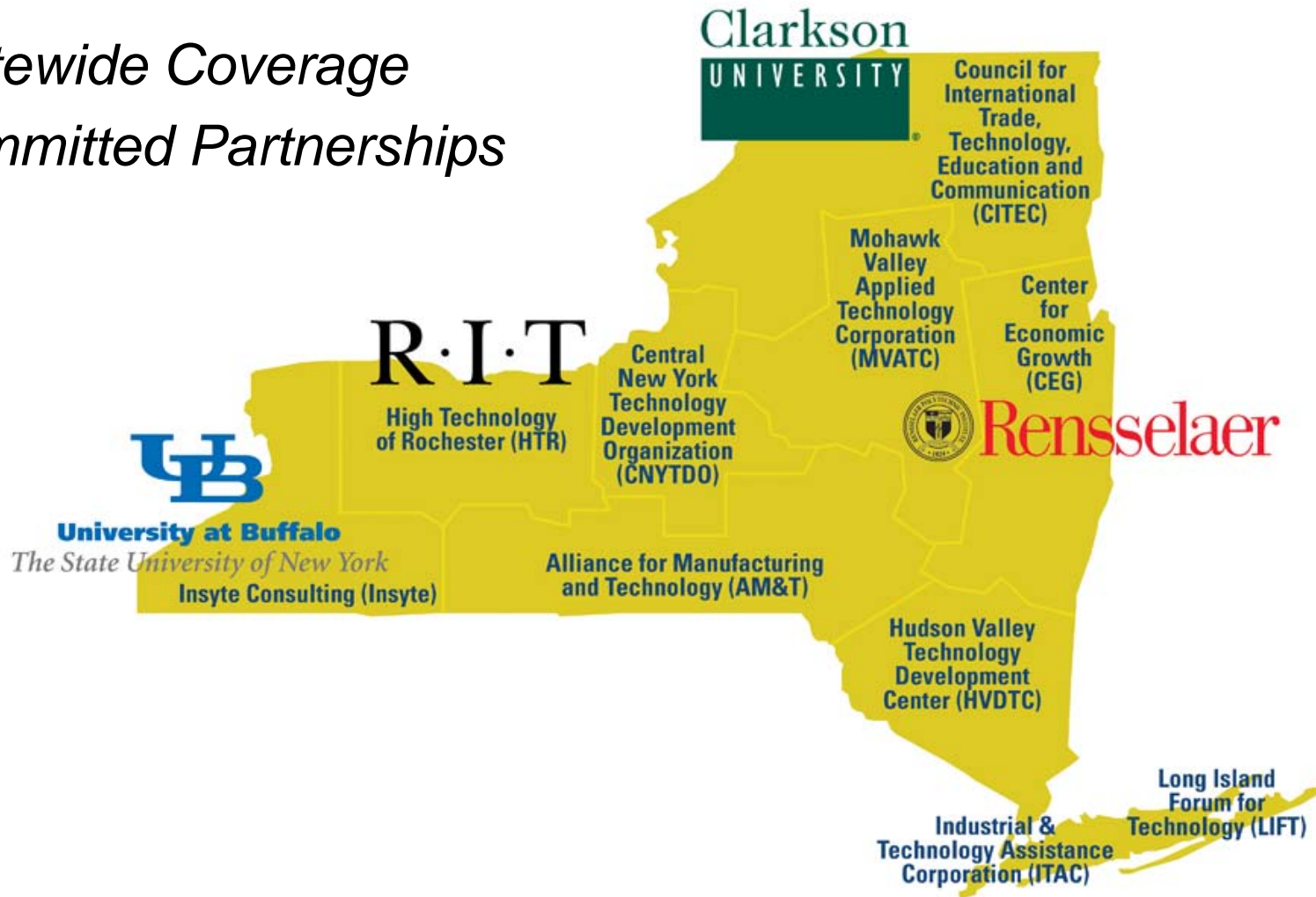


NYS Pollution Prevention Institute

- *Statewide Coverage*
- *Committed Partnerships*



New York State Pollution Prevention Institute

NYSP2I

Research & Development

- Led by Technical Advisory Committee (TAC)
- Four Partner Universities:
 - Clarkson
 - RIT
 - RPI
 - University at Buffalo
- Short & Long-term research

Direct Assistance

- Facilitate the use of P2 for solving environmental problems
- Assessment & Implementation
- LE2: Lean/Energy/Environment

Community Grants

- Provide financial & technical support to community organizations
- Raise awareness & understanding of P2

Professional Training/ Outreach

- Workshops & Training conducted for clients
- Areas of interest for stakeholders
- Specific Training
 - Design for the Environment & Life-Cycle Assessment

Sector Projects

- Projects that have the potential to impact NYS on a high level
- Dry Cleaning
- Hospitality
- E-waste
- Auto body shops

Tangible results towards...  ...a sustainable New York!

Actual Savings:

Hazardous waste/materials:

~900,000 lbs

Energy Usage (Electricity):

>78,000 kWh

Company Cost Savings: ~\$400K

Community Grants:

Funded 9 non-profits in 8 counties in NYS

Film Biz Recycling: Mission – Reduce, reuse & redirect waste from film & television industry

- Developed 500 guides; Held workshops with >100 attendees

Workshops:

Over 100 participating organizations

Topics Include:

Green Chemistry, LE2, Green Buildings, Toxics in Toys

Top 8 Target Sectors

NAICS	Description	Environmental Ranking	Economic Ranking	Economic Forecast	% of Establishments Under 20 Employees	Total
325	Chemical manufacturing	3.06	2.60	0.2	0.66	6.52
334	Computer and electronic product manufacturing	2.32	2.67	0.44	0.62	6.05
331	Primary metal manufacturing	4.09	0.44	0.56	0.56	5.65
332	Fabricated metal product manufacturing	0.83	2.39	0.64	0.77	4.63
339	Miscellaneous manufacturing	0.21	2.03	0.48	0.98	3.70
311	Food manufacturing	0.28	2.03	0.56	0.82	3.70
323	Printing and related support activities	0.13	1.77	0.76	0.85	3.50
327	Nonmetallic mineral product manufacturing	1.50	0.75	0.44	0.75	3.44



Direct Assistance



New York State Pollution Prevention Institute

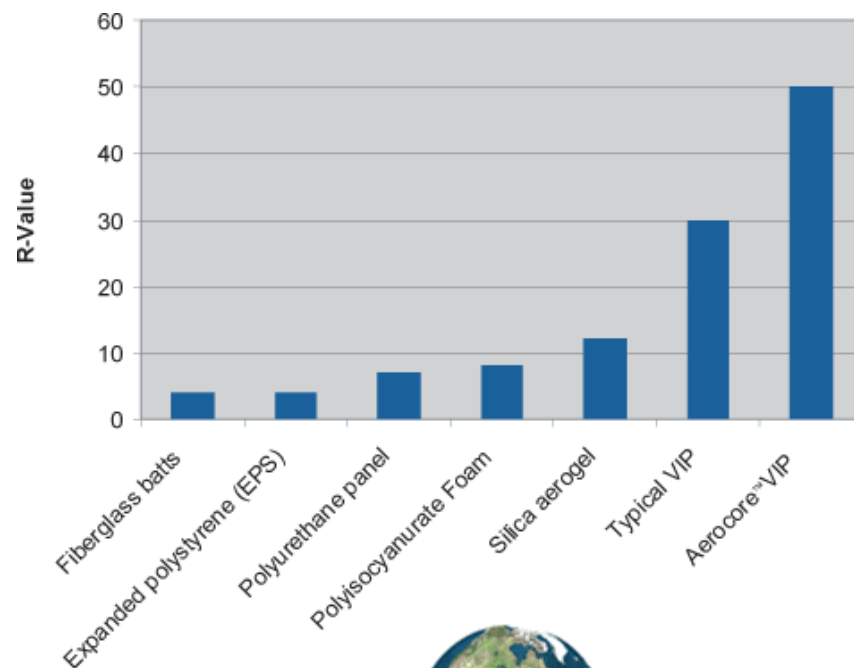
Direct Assistance Project American Aerogel Corporation (AAC)

About the Company:

- Developed breakthrough technology with thermal insulation

NYSP2I role:

- Identified method for converting waste effluent back to incoming raw materials for this start-up NY company
- Results:
 - Modified operation with no degradation in product quality
 - Reduced operating costs by 50-67%
 - Reduced generation of hazardous waste by over 90%



Victor Insulators, Inc.- Project Overview

About the Company:

- Victor Insulators, Inc. are manufacturers of High Voltage Ceramic Insulators.

Baseline:

- Spent~ \$383,000 for electricity and \$488,000 for natural gas annually.

NYSP2Is Role & Potential Results:

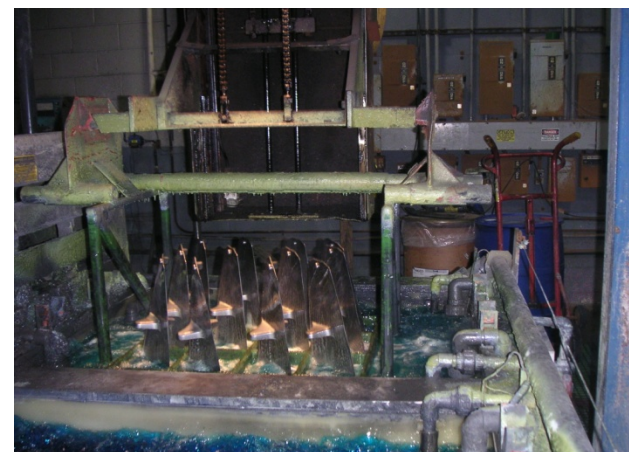
- NYSP2I assisted in reduction of energy used by energy-intensive equipment such as electric mixing motors and dust collectors by improving equipment scheduling and adding programmable timers.
 - Potential annual savings of \$200,000 for electricity



TECT Corporation – Project Overview

About the Company:

- Manufactures titanium turbine blades
- Uses hazardous mixtures of hydrofluoric and nitric acid to etch the titanium alloy used to manufacture turbine blades



Baseline:

- Generated 502 tons of hazardous waste in 2007 from chemical etching operations used to manufacture blades
- Spent ~\$400K on purchase and disposal of etching acids in 2007

Results:

- Provided assistance to extend the bath life of etching acids, **thereby reducing generation of hazardous waste by 47% in 2009**
- Full implementation of process improvements are expected to result in an **86% reduction** in hazardous waste and a **64% reduction in operating costs**



Children's Furniture Manufacturing Assessment

- Manufacturer of maple furniture and spaces designed for children
 - Produce ~4,000 cribs/year
- Goal:
 - Eliminate PVC from children's cribs to meet third party certification
 - Potential to eliminate 5,440lbs PVC per year from the bite guards and 1,520lbs from the mattress covers
- P2I's role:
 - Identify alternatives for the bite guard and mattress and rank them according to EHS attributes to assist CP in decision making



Rochester City School District

- **Two *Kaizens* initiated:**

- Food service process

- Addressed work flow inefficiencies, wasted motions, searching, incorrect/late menu items selections & deliveries to schools by applying value stream analysis, 5S workplace organization, and standardized work methods

- \$20K in annual cost savings
- 70% reduction in overtime hours
- 11% improvement in first-pass-yield (meal delivery accuracy)

- Staffing and Position Control process

- Created standardized work procedures to reduce process lead time, improve staffing allocation accuracy (i.e. placing the right qualified staff in the right position in a timely manner), and eliminate over-staffing errors

- **Estimated:**

- Over \$1.2M annual cost savings
- 60 % lead time reduction
- 50% reduction in over-allocations

