



Technology Transfer and Development Work Group

August 16, 2011

Strengths

1. Internationally known research universities
2. Technology corporations in the region
3. Good concentration of technology business in the region
4. Fairly well-educated workforce
5. Reasonable cost of living
6. Scenic area
7. Have kernel of good technology transfer process
8. Dynamic trends in technology transfer at universities in the region
9. Development of regional tech transfer hubs
10. Close collaboration with other areas of the State
11. Comprehensive system of Higher Education
12. Good soil, water, source of agriculture – strong tech transfer tradition though Cornell and Cooperative Extension, leverage years of research for NYS agribusinesses, food technology
13. Close to NYC
14. Large interest in STEM education
15. Experience and success at moving technology to manufacturing
16. Strong community colleges that can help train the regional workforce
17. Higher education initiatives in entrepreneurship
18. Strong work ethic and history of innovation
19. Examples of successful tech transfer
20. Have some venture capital to support tech transfer
21. Cornell University alumni base and strategic alliances with new companies
22. Centers of Excellence in the region
23. Trainable and motivated workforce
24. STEP-UP led by Broome Community College

Weaknesses

1. No programs/initiatives to connect different universities and community colleges within the region
2. Workforce may not be educated to meet job needs

3. Approximately 2/3 of displaced workers are testing at or below 9<sup>th</sup> grade levels
4. Don't have ready technology recipients and workforce skills for implementation in the region
5. Lack of available capital, pre-seed, seed, angels, etc.
6. Lack experienced mentors in starting new businesses
7. Few successful entrepreneurs as mentors in the region
8. Perception that NYS is not friendly towards business
9. Prime movers are not working together to accelerate the transfer of technology
10. Lack of incentives
11. Disconnect still exists between education and business
12. Lack of college readiness
13. Lack of career readiness
14. Geographic isolation
15. Inter-regional transportation is difficult
16. Lack of incentives to engage business with education
17. Few companies within the region have early stage focus on research, rather than development
18. Poor tax situation, cost of doing business in the State
19. Problems getting people to move here because of high property taxes
20. High energy costs
21. Housing prices are lower but taxes are high but relatively poor housing stock as compared to other States
22. Cannot bring middle managers to the State or to relocate within the region because of different levels of quality housing
23. Lack of infrastructure, once companies grow then need to move out of the area, e.g., too expensive to connect to the internet
24. Few support services for businesses
25. Culture and policies at universities create some disincentives for research professors to work with start – up companies, e.g., tenure policies, conflict of interest policies, etc.
26. Fixation on “green technology”
27. Lack of facilities for start-up companies to move into after leaving labs
28. Need to galvanize collaboration among higher education and business
29. Community leaders looking for quick fixes
30. Mentality of “throw a little bit of funding at something and expecting immediate results and everything is ok”
31. Expectations and the State risk adverse, fear of tax payers
32. Cost of patents has forced many higher education institutions and businesses to slow down patent submissions, and cannot protect many ideas
33. Lack the management teams necessary with entrepreneurial experience
34. Lack of overarching regional economic and business development agencies

#### Opportunities

1. Potential for collaboration with other regions within NYS and other States

2. Business work more closely with Higher Education schools
3. Leverage years of research for NYS agribusinesses, food technology
4. Build on STEM education
5. Experience and success at moving technology to manufacturing
6. Region – wide fund to fill gaps in pre-seed and seed funding needs
7. Need to create innovation network, creating an environment of collaboration and coordination, an entrepreneur ecosystem
8. Leverage the connection/relationship between Wall Street and NYS for venture capital
9. Build on Cornell's success with Wall Street, get Wall Streeters used to thinking about working with the Southern Tier
10. Microelectronics and electronics packaging
11. Large scale systems integration
12. Connect the transportation manufacturing cluster in the region; we make planes, helicopters, buses, trains, etc.
13. Biotechnology, food science
14. Ceramics and glass technology
15. Understand the process of technology transfer – linking all resources in the region, Innovation Engineering
16. Complex machining, precision machining
17. We need to prioritize on a few areas where we can compete and succeed
18. Simulation and training cluster