



Did someone put something in the water?

Stagnation



Innovation

The glass is half empty and half full

But it's at the tipping point



# Building the Innovation Economy

Key sectors for growth



## Building on Regional Strengths

Every region in NYS is home to a leading research or academic institution that has some role in developing next generation technologies that will impact every aspect of our life ...

## Centers of Excellence

### Buffalo

- Bioinformatics and Life Science Sciences

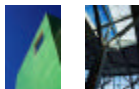


- Advancing drug research design, computational models, product commercialization

## Centers of Excellence

### Syracuse

- Energy and Environmental Systems



- Indoor air quality, healthy buildings, green materials, LEED building design, "smart" buildings, energy and environmental controls, renewable and sustainable technologies

## Centers of Excellence

### **Albany**

- Nanoelectronics



The only university-based 300 millimeter computer wafer pilot prototyping facility in the world, and home to International SEMATECH North

## Centers of Excellence

### **Binghamton**

- Small Scale Systems  
Integration and Packaging



- Advancing the frontiers of microelectronics in small scale systems designs in the "Flexicon Valley" of the Southern Tier

## Centers of Excellence

### **Rochester**

- Photonics and Microsystems

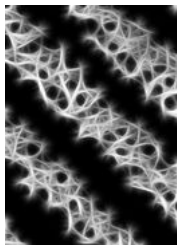


- High resolution imaging and ultra-fast communications devices

## Centers of Excellence

### **Stony Brook**

- Wireless and Information Technologies



- Large scale computing and data mining critical to data intensive operations such as genomics, wireless telecommunications, particularly for health care applications

## 15 NYS Centers for Advanced Technology

- Center for Advanced Ceramic Technology
- CAT in Photonics Applications
- Center for Advanced Information Management
- Center for Life Science Enterprise
- Center for Future Energy Systems
- CAT in Telecommunications
- Center for Automation Technologies
- CAT in Medical Biotechnology
- Integrated Electronics Engineering Center

- Sensor CAT
- CASE Center
- Center for Advanced Technology in Nanomaterials and Nanoelectronics
- Biomedical and Bioengineering
- Electronic Imaging Systems

*University-industry collaborative R&D centers to commercialize technologies from New York State's top research universities into viable new products to be produced by the private sector.*

*Companies are joint partners with academic researchers in developing projects.*

## Specialized Research Centers

- Structural Biology Center at City University
- Integrated Imaging Center at Columbia
- Genomic Technologies and Information Sciences at Cornell
- Info Tech Collaboratory at RIT
- Disease Modeling and Therapy Discovery at SUNY Buffalo
- Biomolecular Diagnostics / Therapeutics at Stony Brook
- Optoelectronics Research at RPI

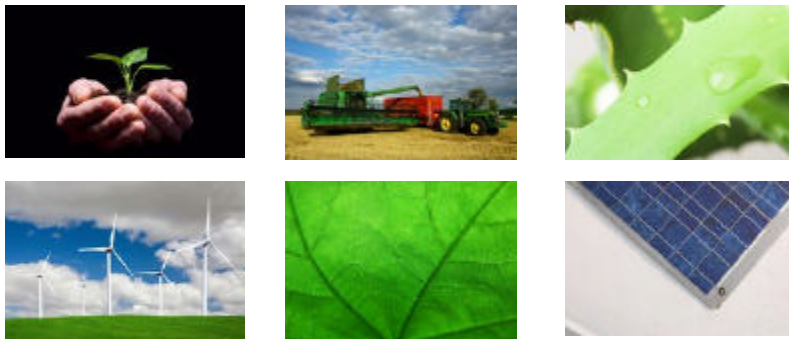
## Other NYS Centers

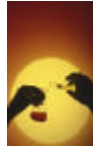
- Cornell Fuel Cell Institute
- Cornell Center for Materials Research
- NYS Center for Liquid Biofuels at Morrisville State College
- SUNY Center for Sustainable and Renewable Energy at ESF
- Center for Autonomous Solar Power at Binghamton University
- National Center for Energy Optimization in US Data Centers at Binghamton University
- Shipley Center for Innovation at Clarkson
- Five new DoE Energy Frontier Centers

## Creating an innovation agenda



## Outpacing stagnation with innovation takes vision





*From an entrepreneur*

"I'd put my money on the sun and solar energy.  
I hope we don't wait until oil and coal run out  
before we tackle that."

By Thomas Edison, the most prolific inventor in  
history, with 1,093 patents

Founder, Edison Light Company, 1879  
New York City (with angel investors,  
JP Morgan and the Vanderbilt family)

He said it 100 years ago