SUNY Innovation
Harnessing Systemness Delivering Performance:
Charting a New Path for Higher Education
Second Annual Critical Issues in Higher Education Conference
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HISTORY OF INNOVATION & GLOBAL IMPACT

1950s
Heart-Lung Machine

1960s
Implantable Cardiac Pacemaker

1970s
Magnetic Resonance Imaging (MRI)

1980s
ReoPro: SUNY’s 1st FDA Approved Medicine

1990s
Bar-Code Scanning Technology
INFRASTRUCTURE

- 64 Campuses
- 8 Centers of Excellence
- 6 Centers for Advanced Technology
- 17 Incubators
Research Foundation for SUNY (RF)
CORE SERVICES

The RF provides two core services that support research at SUNY.

• Sponsored Programs Administration
• Commercialization Support Services
The Next Generation Differs!

- Research questions are becoming even more interdisciplinary
  - Interactions between physical & biological systems
  - Integration of natural and social sciences
- Increasing reliance on technology
  - Real-time data
  - Communication & education skills more important
Top Ten –paying degrees

- Petroleum engineering
- Chemical engineering
- Electrical engineering
- Materials science and engineering
- Aerospace engineering
- Computer engineering
- Physics
- Applied Mathematics
- Computer science
- Nuclear engineering

Online Degrees.com
But ... What Employers Most Want

- Critical Thinking, “master learners”
- Ability to work independently and in teams

Engagement, entrepreneurialism, problem solving, loyalty, nimbleness, societally-relevant skills, knowledge-generating, technology-embracing
NSF: Integration of Research and Education, version 2.0
Backed By Research:

Participation of undergraduate students in original research encourages them to pursue careers that address current complex scientific and societal problems.
SUNY’s New Path

• Possible Objectives:
  – **Provide** all students an opportunity to engage with research and scholarship as part of their education
  – **Triple** the Number of Startups
  – **Train** 10,000 Entrepreneurs
  – **Triple** the use of NY’s Innovation Space
  – **Triple** University / Industry Partnerships
  – **Ignite** Business Climate to Support Innovation
  – **Stimulate** $1B Private Investment in NY Technology
The Approach:

- **Engage** all Regions
- **Liberate** Brilliant Minds
- **Create** a Culture of Collaboration
- **Maximize** Human Capital Development
- **Leverage** Assets to Build an Innovation Ecosystem
- **Drive** Outcomes and Measure Results
Outcomes:

- Jobs
- Investment
- Economic Growth
- Quality of Life
- New Academia / Industry Compact

*Higher Education is an Economic Engine for New York*
Innovating the 21st Century University: It’s Time!

“Universities need an entirely new modus operandi for how the content of higher education is created. The university needs to open up, embrace collaborative knowledge production, and break down the walls that exist among institutions of higher education and between those institutions and the rest of the world”

Tapscott and Williams, EDUCAUSE Review
IMPACT = EXCELLENCE x SCALE

I = (E x S)