

The Road to Semiconductor Resurgence Runs Through New York

Kevin Younis

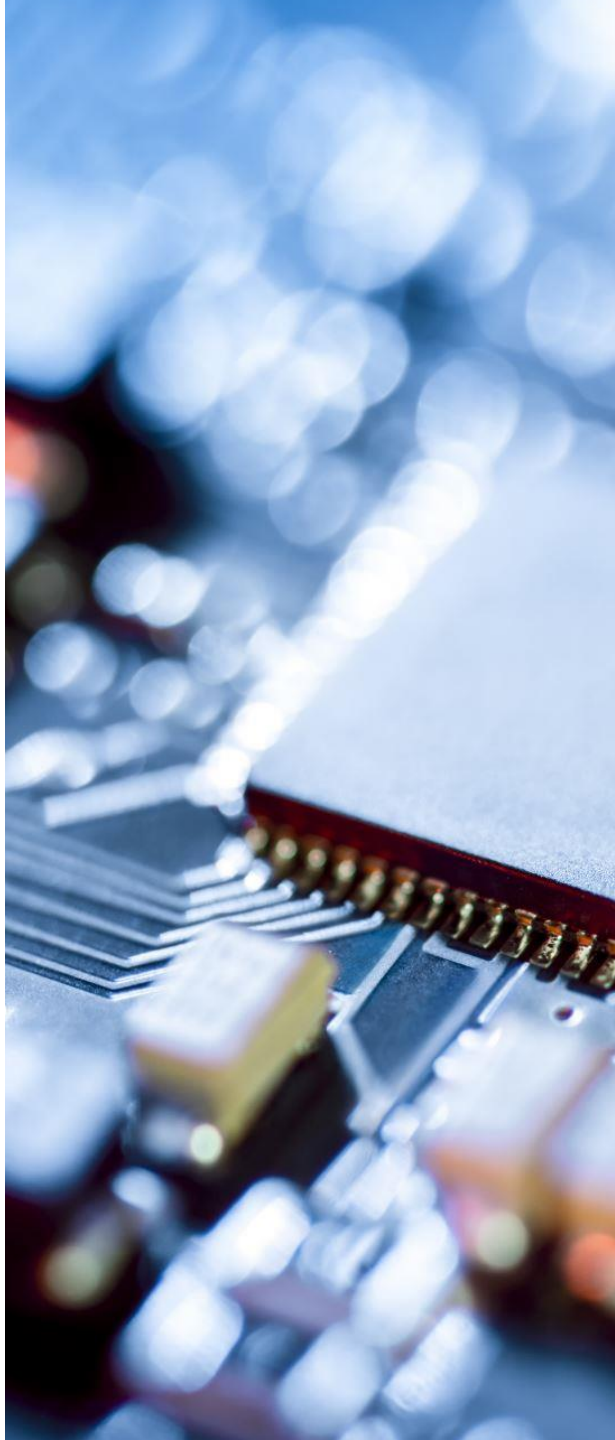
COO and Executive Deputy Commissioner, ESD

August 2023

NEW YORK STATE OF OPPORTUNITY | Empire State Development

The Semiconductor Industry in New York State

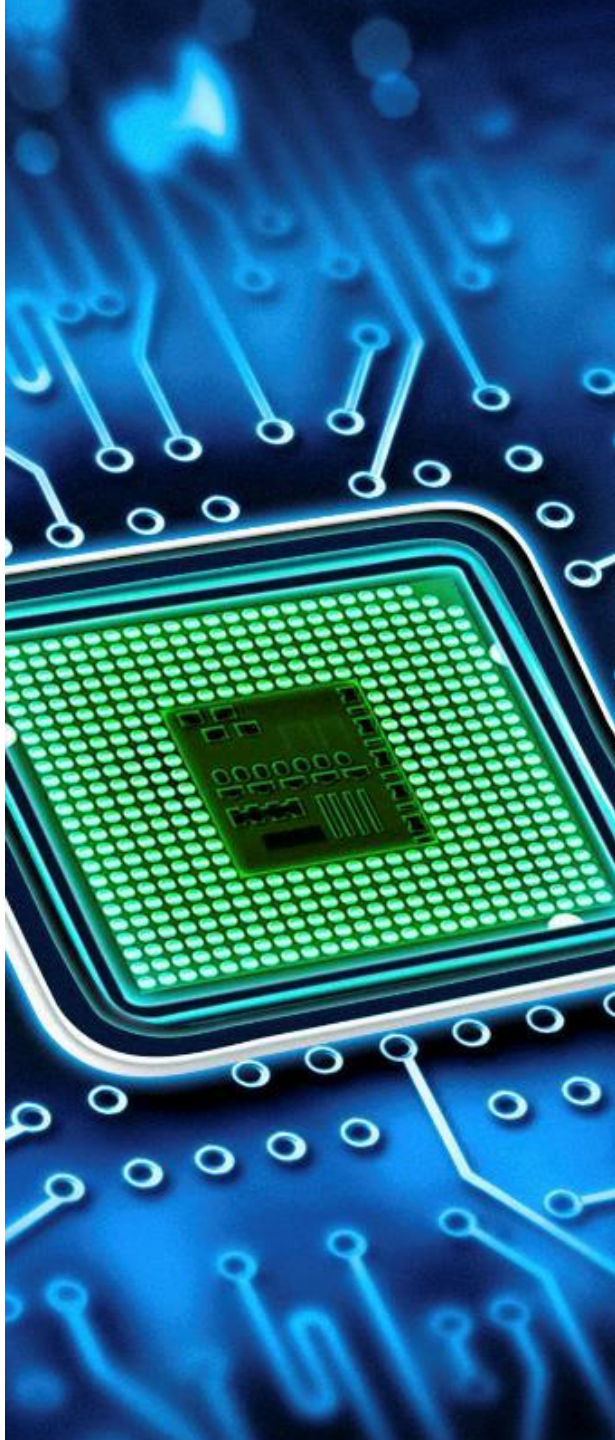
- A leader in computing design, development and manufacturing **since 1945.**
- Home to a **robust semiconductor ecosystem.**
- Semiconductors have been **a key focus of Governor Hochul's administration** since day one.



GO-SEMI

GOVERNOR'S OFFICE OF SEMICONDUCTOR EXPANSION, MANAGEMENT, AND INTEGRATION

- Office to lead and centralize the implementation of Micron's **$100 Billion Investment** in Central New York.
- Develops and advances policies to attract semiconductor industry, supply chain, and skilled workers to New York.
- Coordinates workforce development and community investments to support local community.



Why New York State?

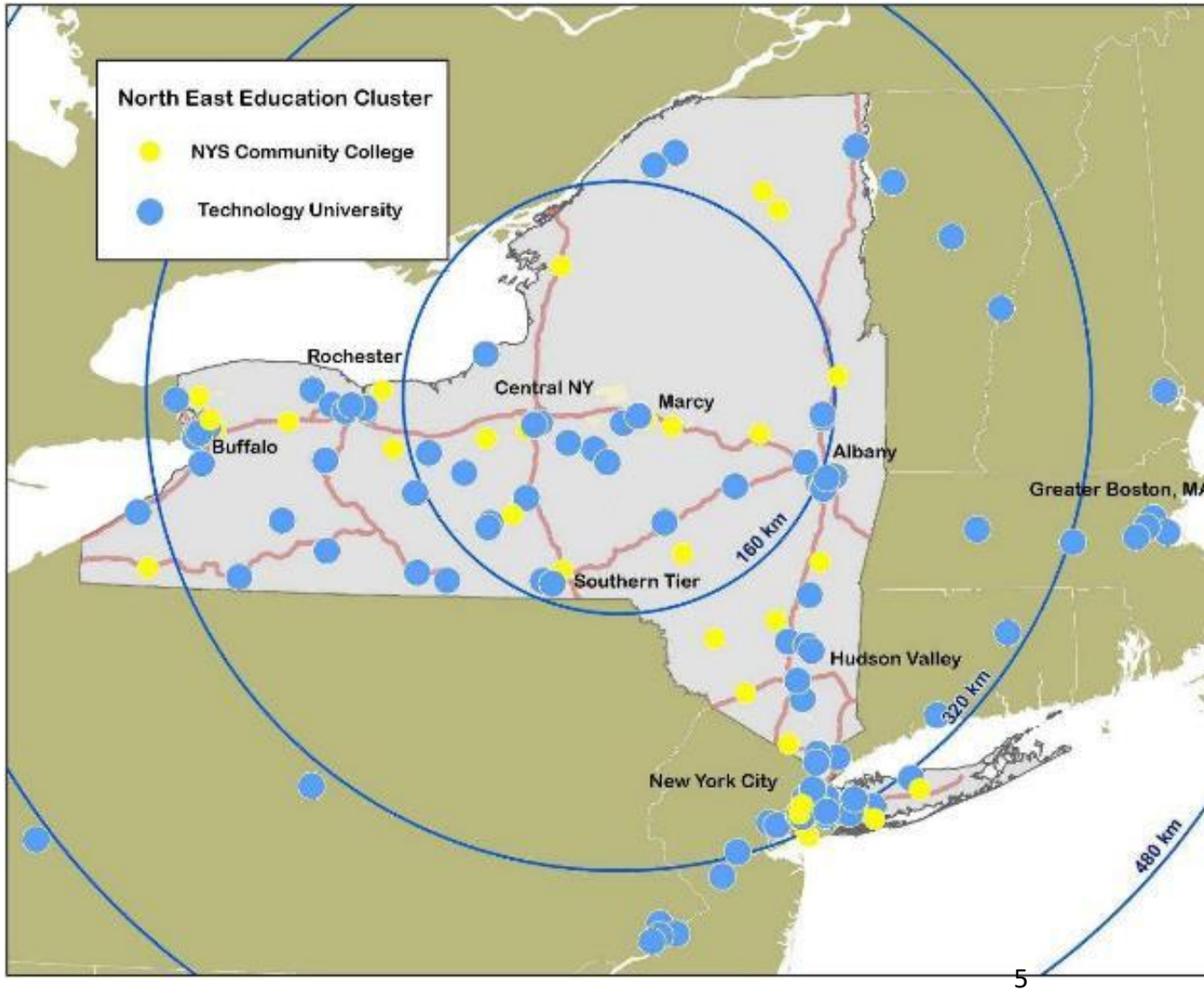


WHY NYS? – Workforce and Education

	Regional Technology Universities	Community Colleges
Institutions	88	29
Total College Enrollment	1,294,941	506,929
Total STEM Degrees and Certificates	46,874	5,368

New York Has….

- Highly educated and robust workforce:
  - **1st in the Northeast** in STEM graduates.
  - **3rd nationally** in high-tech workforce.
- *Only* state in the nation with **two Ivy League universities** (Cornell and Columbia).
- **The nation's largest public university system**, the State University of New York (SUNY).



WHY NYS? – Workforce and Education

Office of Strategic Workforce Development

- Focuses on growing New York's manufacturing and technology workforce – **including semiconductors.**
- The Office awarded **more than $24 million to 39 projects to train over 9,000 people for over 300 businesses**.

R&D

- New York is **a national leader in semiconductor patents and R&D expenditures.**
- The Albany NanoTech Complex is the most **advanced, publicly-owned 300mm semiconductor R&D facility** in the United States.
- Albany NanoTech has:
  - Attracted **$20B Investment**
  - 2,750 Staff, Scientists & Engineers
  - 150k ft^2 Clean Room Space
- Key research partners include **IBM, Applied Materials, Samsung Electronics, Tokyo Electron, SCREEN, JSR, the State University of New York (SUNY)**, and others.



Green CHIPS

- Aligned with the federal CHIPS Act.
- **Up to $10 billion** in performance based economic incentives for semiconductor manufacturing and supply chain projects.
- Supports **workers and communities**.
- Encourages and helps companies make **sustainable investments**.



Energy and Resources

- New York State has some of the **most stable and abundant energy and natural resources in the country.**
- New York is **set to achieve 100% carbon-free electricity by 2040.**
- **Companies can invest in New York for the long term** without needing to worry about resource competition now, or in the future.



Site Development



- New York has made **strategic investments to create shovel-ready sites built to semiconductor standards.**
- New York is investing $200M via the FAST NY program to create shovel-ready sites, **not only for manufacturers, but also for supply chain partners and related companies.**

Micron By The Numbers



50,000

New Permanent Jobs by 2055



$100B

Investment



20:1 ROI

Total benefit-cost ratio under the performance-based Green CHIPS program



$500M

in direct community investment



100%

renewable energy commitment



$17.2B

in additional tax revenue over the next 20 years

Micron in NY

- Micron cites several factors for their choice of New York State
  - **Diverse talent**, encompassing communities underrepresented in technology jobs.
  - Urban and outdoor lifestyles, an **affordable cost of living** and **leading higher education institutions.**
  - Partnership opportunities with local K-12 education programs, community colleges and institutions for **top engineering and technical talent.**



- **New York is ready** to continue to drive the growth and development of this critical industry.
- We recognize the **historic importance of this moment.**
- It’s on us to make sure the benefits of all this investment are felt by those who need it most; **equitable economic growth is our final goal.**





Thank you!

Kevin Younis
COO Empire State Development