

# National Center for Nanotechnology Applications and Career Knowledge (NACK) Network

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## NACK Network Mission

To enable and foster broad and economically viable nanotechnology workforce education across the U.S.

## History

- Industry-led inception since 1998
- 18 credit capstone semester
- Leverages NSF NNIN site
- NSF ATE Regional Center 2001-2008
- Degree programs at 29 PA institutions
- Teaching Cleanroom
- 2+2+2 educational pathways
- Educator and industry workshops
- Summer nanotech academies
- NSF ATE National Center since 2008

## National Industry Advisory Board

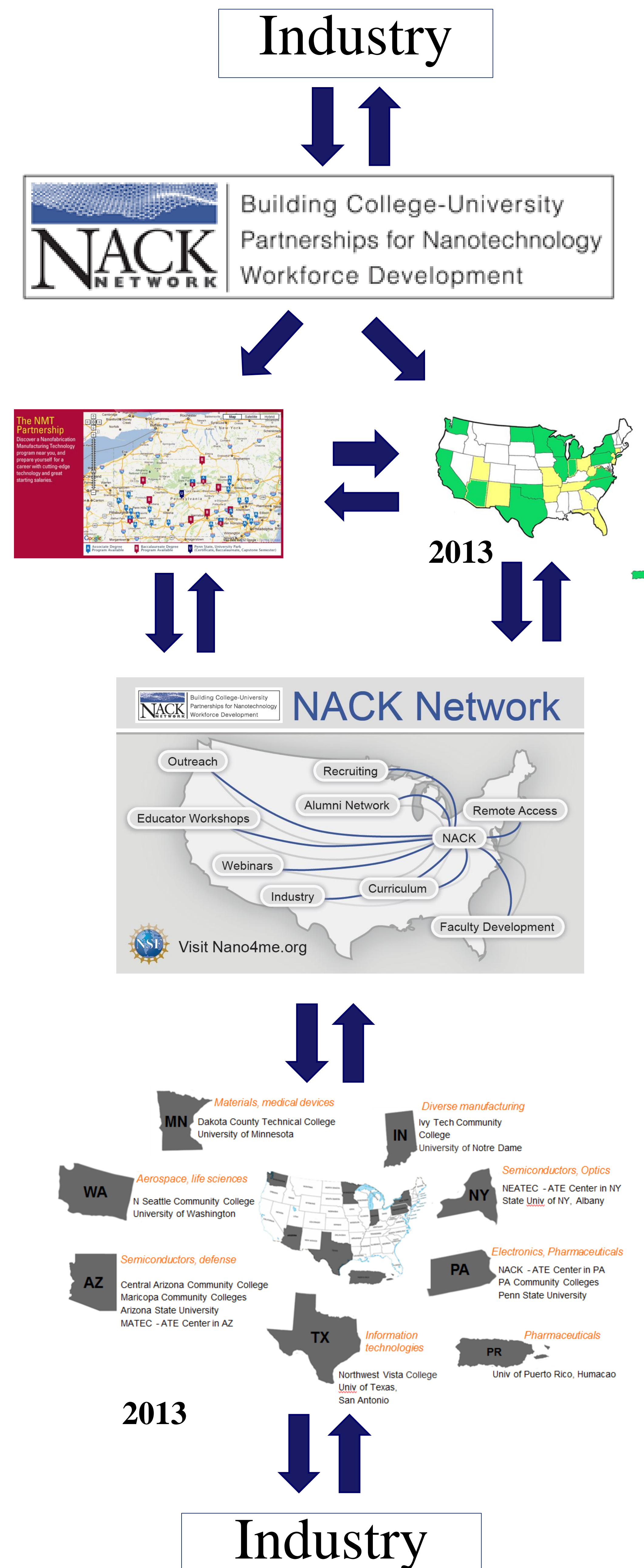
- |   |                      |
|---|----------------------|
| -Alcatel-Lucent                                     | - Boeing             |
| -Corning  | - Cyoptics           |
| -Dupont   | - General Electric   |
| -Imerys   | - Johnson & Johnson  |
| -Lockheed Martin                                    | - 3M                 |
| -Plextronics  | - Strategic Polymers |
| -National Council for Advanced Manufacturing        |                      |
| -National Coalition for Advanced Technology Centers |                      |

## Hiring Institutions

- |                  |                    |
|------------------|--------------------|
| -Alcoa           | - Amgen            |
| -BP Solar        | - Cabot            |
| -Cyoptics        | - Dupont           |
| -First Energy    | - General Dynamics |
| -Globalfoundries | - Intel            |
| -Kurt J Lesker   | - Lockheed Martin  |
| -Lucent          | - Merck            |
| -NanoHorizons    | - 3M               |
| -Seagate         | -- and many more   |

## Some Metrics

- Over 1050 students have completed nanotechnology degrees
- Over 200 institutions have hired our graduates for micro and nanotechnology careers



## Actions

### Develop

- 6 course, 18 credit, nanotechnology curriculum

### Educate

- Prepare students for broad spectrum of industries

### Share

- Courses, workshops, laboratory facilities, staff
- Enable this broad nanotechnology education in synthesis, fabrication, characterization, and applications at community and technical colleges / university partners throughout the US

## Resources Available

### Curriculum

- 6 nanotechnology synthesis, fabrication, and characterization courses (lectures, labs, videos)

### Remote Access

- Web access to nanotechnology characterization equipment for K-12 and post-secondary use

### Learning Modules

- Introductory modules covering various aspects of nanotechnology (for K-12 and undergraduate)

### Professional Development

- Introductory as well as Nanotechnology Course Resource Workshops and Webinars for training and educating teachers and practitioners

### National Alumni Network

- Student testimonials, career outlook, etc.

### Website

- Links to all our resources, and more

