

New Jersey Innovation: Past, Present & Future

Dr. Donald H. Sebastian

President & CEO

NJ Institute Innovation Institute

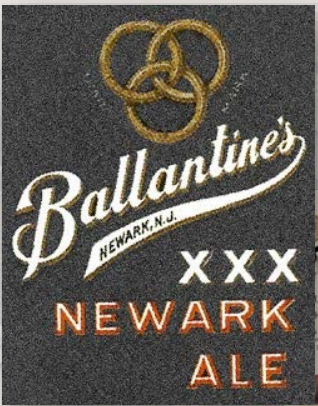
an NJIT Corporation

Newark, NJ 07102

donald.sebastian@njii.com

New Jersey Industrial Growth: 1800-80

Dye Wood
Hudson River
Mills



STETSON.



HYATT

Celluloid Manufacturing Company



LOCOMOTIVE
RODGERS
COMPANY



The Cooke Locomotive and Machine Company,
PATERTON, N. J.

New Jersey Industrial Growth: Regional Clusters

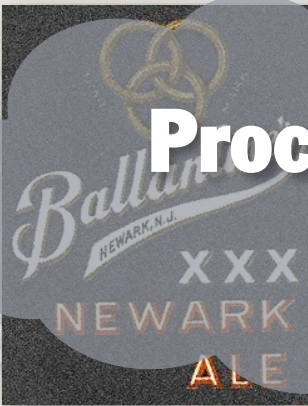
Process

Dye Wood
Hudson River
Mills

Apparel

Materials

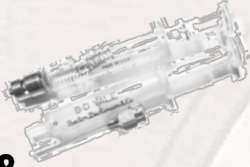
Heavy Machinery



New Jersey Industrial Growth: STEM Entrepreneurs



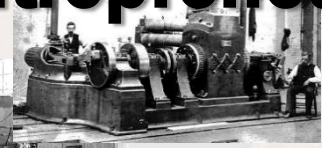
**M. Becton &
F. Dickinson**



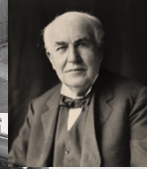
D. Sarnoff



E. Johnson

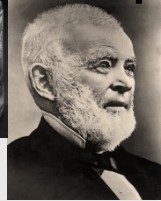


T. Edison



W. Colgate

E.R. Squibb



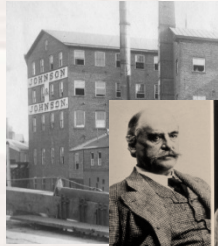
G.W. Merck



A. Bell



G. Raupenstrauch



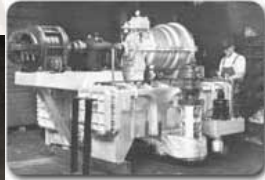
Johnson Brothers



J. Campbell



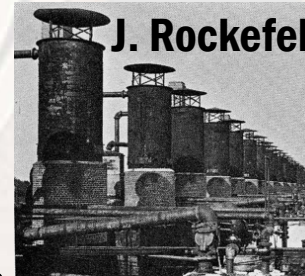
W. Carrier



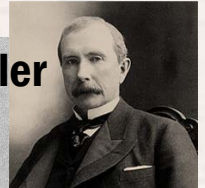
L. Baekeland



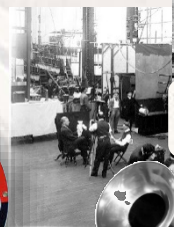
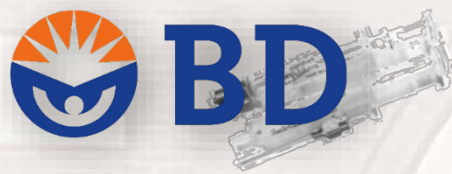
R. Chesebrough



J. Rockefeller



New Jersey Industrial Growth: Enduring Corporations



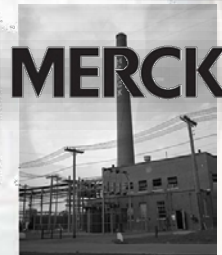
Edison Electric Light.



Johnson & Johnson



AT&T



MERCK



COLGATE



Carrier



UNION CARBIDE



New Jersey Industrial Growth: Peer Corporations



New Jersey Industrial Growth: Clusters Redefined

**Heavy
Machinery**

**Recording &
Broadcast**

**Electricity &
Electronics**

**Medical
Technology**

Telecom

**Pharmaceutical
& Personal Care**

**Food &
Beverage**

Appliances

Materials

Petrochemicals



Changing Model of Innovation

1870-1920

Inventor/Entrepreneur



1920 - 1990

Corporate R&D



Bell Laboratories

1990 - Today

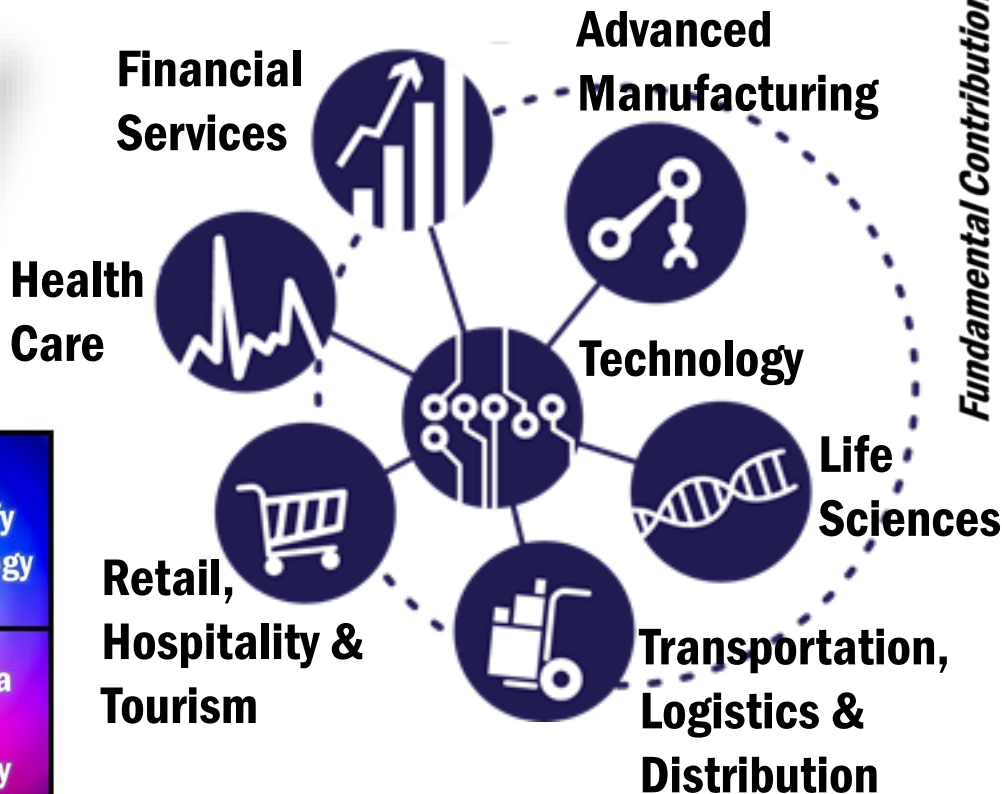
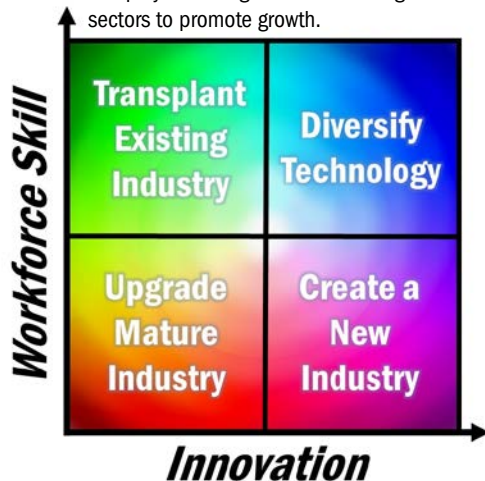
Corporate VC, M&A



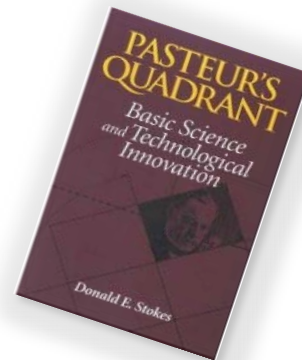
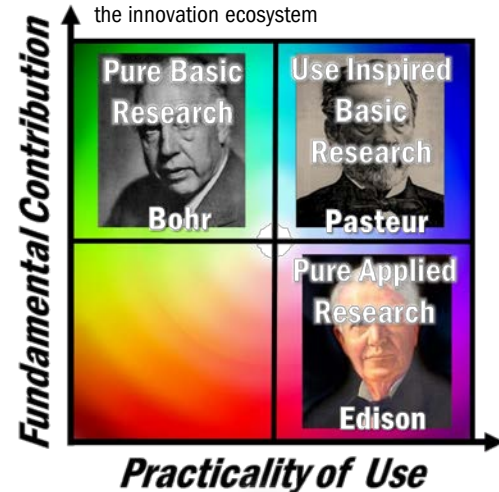
NJ Target Cluster Strategy



Clusters can grow in other ways than disruptive technology - universities can play a leading role in convening sectors to promote growth.



Loss of Pasteur Quadrant embodied in large-scale corporate R&D creates a critical hole in the innovation ecosystem



NJ Ecosystem Public Sector Initiatives

Science-*Understand*



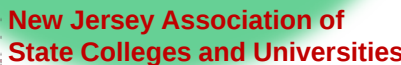
Innovation-*Create*



Manufacturing-*Make*



Education-*Learn*



NJII Bridges Market Needs to Solutions

