

Partnerships (PPPs): Leveraging Collaborative Relationships to Improve Performance

## Agenda

- Why partner with other organizations?
- What leads to successful partnerships?
- What are some examples of highly successful partnerships?
- What other options are available to work efficiently and effectively?

#### Why partner with another organization?

- Make more money
- Solve problems
- Do more with less
- Access new skills & new suppliers
- Globalize quickly
- Access new customers
- Provide new services
- Leverage funds



### What types of partnerships are there?

- Joint financing- of an asset beyond the means of one partner (satellite)
- Joint venture- product of one company marketing that of another (McDonald's and movie promotion)
- Value-chain networkcomplementary skills brought together to serve the same customer (Dell and Microsoft)

- **Contract** fee for service (nonprofit provides job training to public assistance recipients)
- Memorandum of understanding- task force or working group (multi-sector emergency response plan)
- **Professional Association** establish code of ethics and standards of practice (American Medical Association)

### Case 1: PPPs in Colombia

- Major step toward PPP with the creation of the partnership to repair and operate the water/wastewater system in Cartagena
- Aguacar, combining the resources of the city's public works department and a major Spanish water firm
  - Leaks reduced, pressure improved, and expanded coverage to most of the city's poor neighborhoods
  - Economics of the system improved through more efficient operation and better tariff collection
  - City retained 50% ownership and granted a 26 year concession;
     Aguacar received dividends & profit share

- Between 1996 and 2007, more than 40 water and sewer contracts were initiated across Colombia serving more than 7.3 million
- TransMilenio opened in 2000
  - serves more than 1 million passengers a day through a network of dedicated express bus lines connected to multiple feeder traditional bus services; public company owner, multiple private contractors for service provision
- State-owned Ecopetrol develops oil and gas reserves with BP and other private companies

## TransMilenio, Colombia





- PPPs and privatization occurred in power generation and telecom
- Solid waste collection has been contracted out for many years
- Rural Productive Partnership Project
  - Sponsored by the World Bank
  - Has helped small farmers upgrade and meet larger market standards
- Major innovations in education delivery through Confama and other private partners
- Major new PPP to build modern road system throughout country

#### Case 2: The History of PPPs in Brazil

- History of innovation—Bolivia-Brazil Gas Pipeline
- Sao Paulo Line 4 (Via Quatro) of the Subway
- MG-050 state highway project improvement
- Bahia state sewage pipeline project
- Tax incentives and low interest loans for investment in innovation

## Bolivia-Brazil Gas Pipeline





# Construction of Sao Paulo No. 4 Subway Line





- Innovation in deep water oil exploration technology and production and use of renewable fuels
- Progress has been slowed by certain weaknesses in state power, and inefficient and complex public bureaucracies
- Laws and policies biased against export industries, government dominated labor policies, poor infrastructure, high cost of capital, inadequate education, and health care

- Innovation policy is fragmented among government levels with extensive decentralization to the states (good & bad)
- Drive toward university-business partnerships
- More focus needed on innovation as an organizing principle for PPPs
- Need for a coherent national innovation policy
- Need for monitoring and evaluation of investments in innovation partnerships



### Case 3: PPPs in India

- PPP viewed as a way to help close infrastructure funding gap
- Significant concerns regarding competition, public interest, and fair pricing
- Fears that agriculture and rural areas will be left behind
- Health sector viewed as opportunity but concern privatization is more likely than PPP
- Education seen as great opportunity

## India's PPP experience is mixed

- Water and sanitation projects viewed by many as too favorable to private multinationals; private monopolies created with public assets
- Concerns that India PPP rely too much on debt financing from banks; bonds might be better
- Many view PPP in transportation, particularly roads, as a success.
- Some progress in power sector but still lagging
- Pilots for homeless shelters (Delhi) and affordable private health facilities (Gwalior)

## Case 4: Partnerships in NYC

#### NYC partners with:

- Federal and State Government
- Civil Society Organizations
- Financial Institutions
- Neighborhood groups
- Other local governments
- Influential individuals
- Private companies



## NYC Housing Partners





- Private real estate developers
- Tenant associations
- Community based organizations
- Banks & government finance organizations
- NYPD
- HUD and DHCR
- Homeless and special needs agencies
- Current NYC 80-20 program

#### **NYC Health Partners**

- Doctors
- Private hospitals
- Insurance companies
- Drug companies
- State and federal government
- FDNY and private ambulances
- Vendors and suppliers
- Advocacy and community organizations





## NYS Governor Cuomo focused on Partnerships

- CNSE is public-private education, research/development
- Start-Up New York- tax holiday if business locates at SUNY sites
- \$3.1 billion Tappan Zee Bridge
- Regional Council process requires public-private partnerships
- Yogurt, Beer/wine, tourism summits

## CNSE ALBANY CAMPUS





#### **New York's Nanotech Corridor**

Medical Innovation and Commercialization Hub

Buffalo, NY

**High-Tech Manufacturing Complex** 

Buffalo, NY

Information **Technology** Innovation & Commercialization

Center

Buffalo, NY

**NY-Power Electronics** Manufacturing Consortium -

Rochester X

**Smart System** Technology & Commercializa tion Center

<del>Canandaigua,</del> NY

**SUNYPI** Nano Utica

Utida

**Central New York Hub for Emerging** Nano Industries Syracuse MV

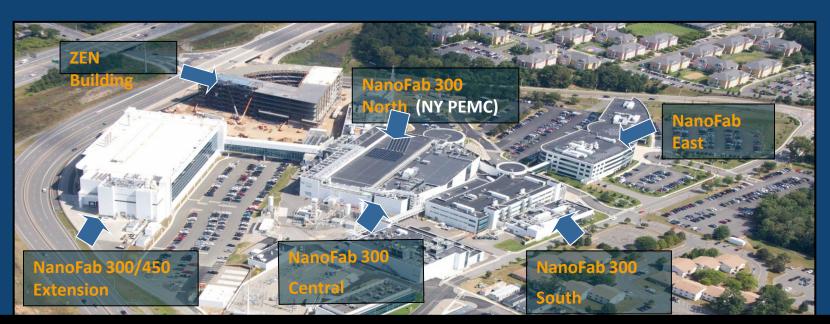
**PVMC & SEDC** Halfmoon,

**NY-Power Electronics Manufacturing** Consortium - SiC

> Albany NY **CNSE**

G450C Albany, NY

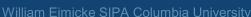
#### Albany NanoTech Complex



- > 1,000,000 sq.ft. of cutting-edge facilities, with 135,000 sq. ft. of 300mm and 450 mm cleanrooms with a current expansion to 1,300,000 sq. ft.
- More than 300 industry partners including electronics, energy, defense & biohealth
- Over \$20Bil investments and over 3,100 R&D jobs currently on site

## **Semiconductor Economics**





#### Semiconductor Economics

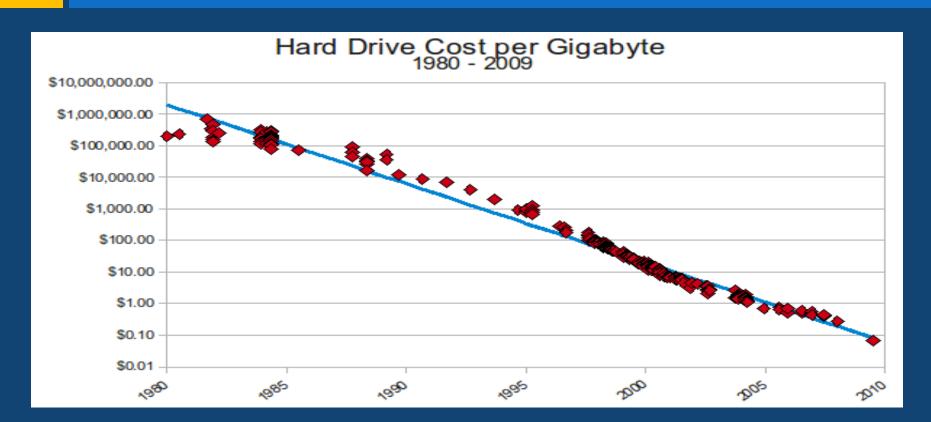
#### Moore's Law

- The number of transistors on a circuit doubles every 18 (or 24) months.
  - \$700,000 to 1 cent?

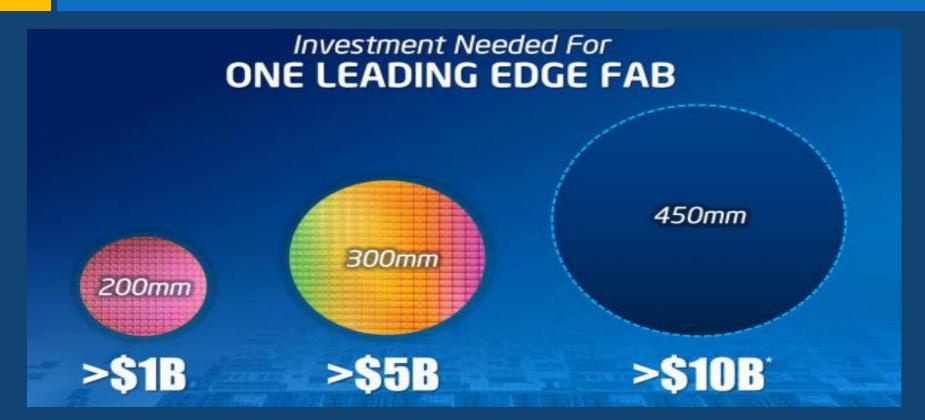
#### **Industry Drivers**

- Capital cost of a semiconductor fab increases exponentially over time. (Which explains the need for increased industry collaboration and consortia)
- Consumers also drive Moore's Law. The rapid development of electronics has created a sense of expectation among consumers. Every year smaller, faster, cheaper, and lower power electronics hit the market.

#### Moore's Law at work

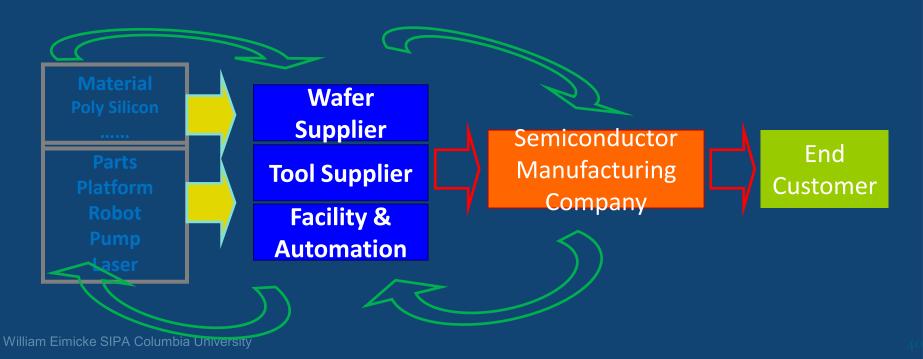


## Industry Drivers



### Supply Chain Collaboration

Supply chain collaboration enables efficient and effective 450mm transition



## **The New York State Strategy for Growth**





"Create an Upstate Technology Corridor"



NY Governor Andrew M. Cuomo announced that NY State will partner with over 100 private companies, led by GE, to launch the New York Power Electronics Manufacturing Consortium (NY PEMC).

Develop the next generation of materials and processes used on wide

band gap semiconductors



Higher max. temperature:  $T_{SiC} \ge 200^{\circ}C$  vs.  $T_{Si} \le 175^{\circ}$ 

Reduced power losses... by more than 50%

2X higher power density...
more compact / powerful

More reliable in high temperature environments

#### Driving the next power revolution





Silicon carbide vs. current devices—will save enough electricity to power the entire state of New York.



#### **Consortium Membership includes:**

- Access to PEMC's ISO 9001 Quality Certified SiC production facility capable of yielding between ~30,000-50,000 wafers/year
- Access State-of-the-Art equipment set for device and process development using Company flow or Consortiums 1.2kV baseline MOSFET flow
- SUNY Poly's Proven Environment for Partnership Development and IP Protection
- Full complement of metrology and analytical equipment suite





## Buffalo, NY

largest solar facility in Western Hemisphere

Building currently under construction

First tools move in 2H 2015~ 3,000 employees on-site



- Governor Cuomo's initiative to transform SUNY campuses and other university communities into tax-free communities for new and expanding businesses. Business will locate in these zones and for 10 years enjoy
  - No state income tax
  - No business or corporate state or local taxes
  - No sales tax
  - No property tax
  - No franchise fees



 Prospective businesses must satisfy various criteria, including being new to NYS or determined by the Commissioner to be creating net new jobs within the first year and beyond





## Governor Cuomo's solution

- Fast-tracked
- Design-build PPP bid
- Project labor agreement
- Total project cost \$3.9 billion (\$7 billion if state run)
- Construction complete in less than 6 years
- Built to handle bus and rail lines in future
- Federal and state grants and loans

# What are the keys to successful partnerships?

- Information- partners freely share information critical to a successful venture.
- Integration- partners establish SOP's to enable them to work smoothly in tandem.
- *Institutionalization* partnership has formal status, its own SOP's and decision-making structure.
- Integrity- partners treat each other with respect.

- Interdependence- Partners need each other to reach a key goal.
- *Individual excellence* Partnership is not intended to cover a weakness of one partner.
- Importance- Collaboration moves both partners toward a key goal.
- Investment- Partners make tangible investments in each other.

## Conclusion

- Choose the right structure (privatization, contracts, partnerships, or networks) to meet your specific needs: none is a panacea for all public goods and services
- Partnerships, collaborations, and networks may yield greater benefits than privatization
- Different contexts, with similar parties, may still yield different results
- Effective public-private relationships require effort, monitoring, and collaboration from day one

## Suggested Readings

- D. Osborne and T. Gaebler, Reinventing Government, Reading, Ma: Addison-Wesley, 1991.
- S. Goldsmith and W. Eggers, Governing by Networks, Washington, DC: Brookings, 2004.
- S. Goldsmith, The Power of Social Innovation, San Francisco: Jossey-Bass, 2010.
- S. Cohen and W. Eimicke, Tools for Innovators, San Francisco: Jossey-Bass, 1995.
- R. Behn, Democratic Accountability. Washington, DC: Brookings Institution, 2001.
- P. Drucker, Management Challenges for the 21st Century. NY: Harper Business, 1999.
- E.S. Savas, Privatization: The Key to Better Government. N.J.: Chatham House, 1987.
- Eliot Sclar, You Don't Always Get What You Pay For. Ithaca, NY: Cornell University Press, 2000.
- J. Kamensky and T. Burlin, Collaboration: Using Networks and Partnerships. NY: Rowman and Littlefield, 2004.
- M. Christopher, Logistics and Supply Chain Management. NY: FT Prentice-Hall, 2005.
- D. Kettl, Sharing Power: Public Governance and Private Markets. Washington, DC: Brookings Institution, 1993.
- S. Cohen and W. Eimicke, The Responsible Contract Manager, San Francisco: Jossey-Bass, 2008.
- S. Cohen, W. Eimicke, T. Heikkila, The Effective Public Manager, SF: Jossey-Bass, 2013.
- J. Welch. Winning, NY: Harper Business, 2005.