# Regional Competitiveness in a Global Economy

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This presentation draws on ideas from Professor Porter's articles and books, in particular, <u>The Competitive Advantage of Nations</u> (The Free Press, 1990), "Building the Microeconomic Foundations of Competitiveness," in <u>The Global Competitiveness Report 2007/08</u> (World Economic Forum, 2007), "Clusters and the New Competitive Agenda for Companies and Governments" in <u>On Competition</u> (Harvard Business School Press, 1998), and ongoing research on clusters and competitiveness. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means - electronic, mechanical, photocopying, recording, or otherwise - without the permission of Michael E. Porter. Further information on Professor Porter's work and the Institute for Strategy and Competitiveness is available at <a href="https://www.isc.hbs.edu">www.isc.hbs.edu</a>. Version: June 20, 2008 - 3pm

# The Changing Nature of Domestic and International Competition

- Falling barriers to trade and investment
- Globalization of markets
- Globalization of company value chains
- Increasing knowledge and skill intensity of competition
- Value is increasingly concentrated in service functions, not manufacturing activities themselves
- Shift from vertical integration to relying on outside suppliers, partners, and institutions
- Rising logistical costs due to costs of energy and emissions
- Costs in China and India are rising rapidly

### **What Determines Competitiveness?**

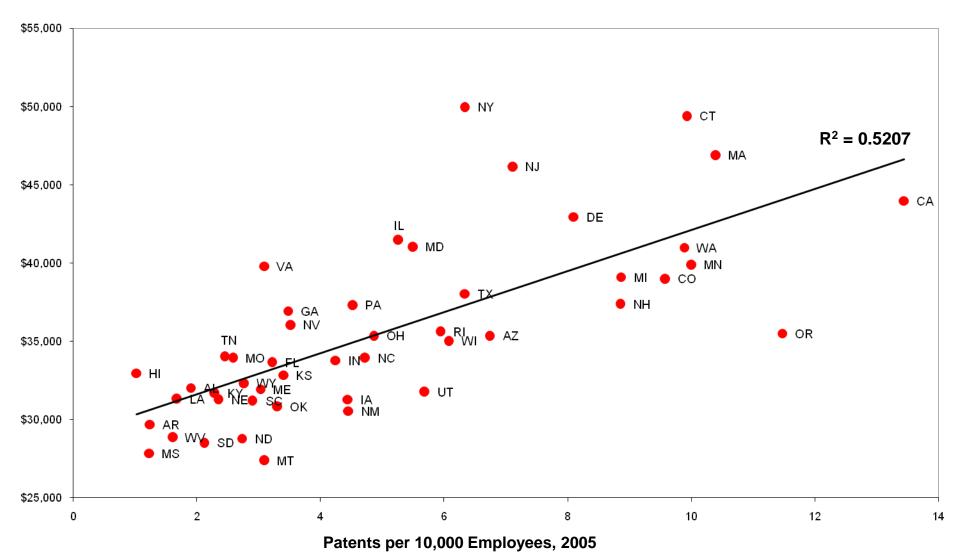
- Competitiveness depends on the productivity with which a location uses its human, capital, and natural resources.
  - Productivity sets the sustainable standard of living (wages, returns on capital, returns on natural resources)
  - It is not what industries a nation competes in that matters for prosperity, but how it competes in those industries



- Nations and regions compete to offer the most productive environment for business
- The public and private sectors play different but interrelated roles in creating a productive economy

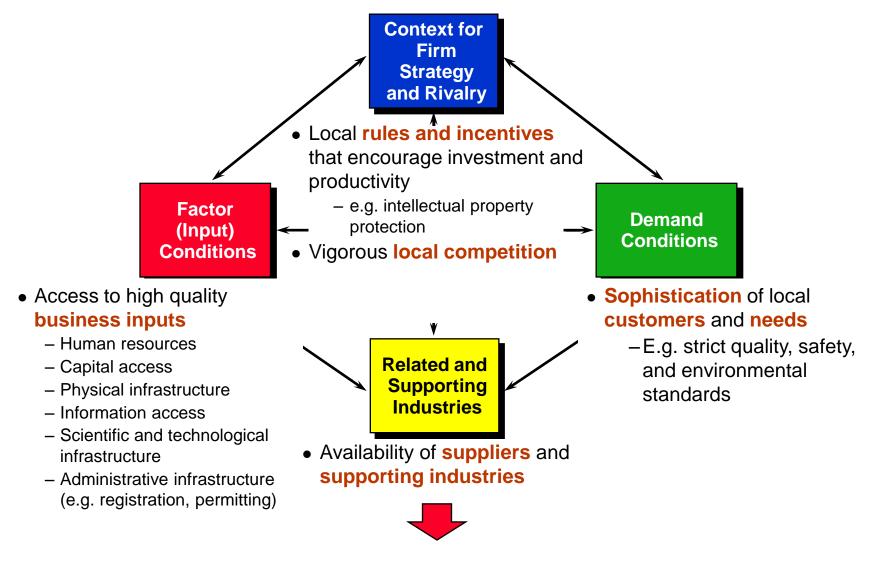
### Innovation and Regional Performance <u>U.S. States</u>

#### Average Wage, 2005



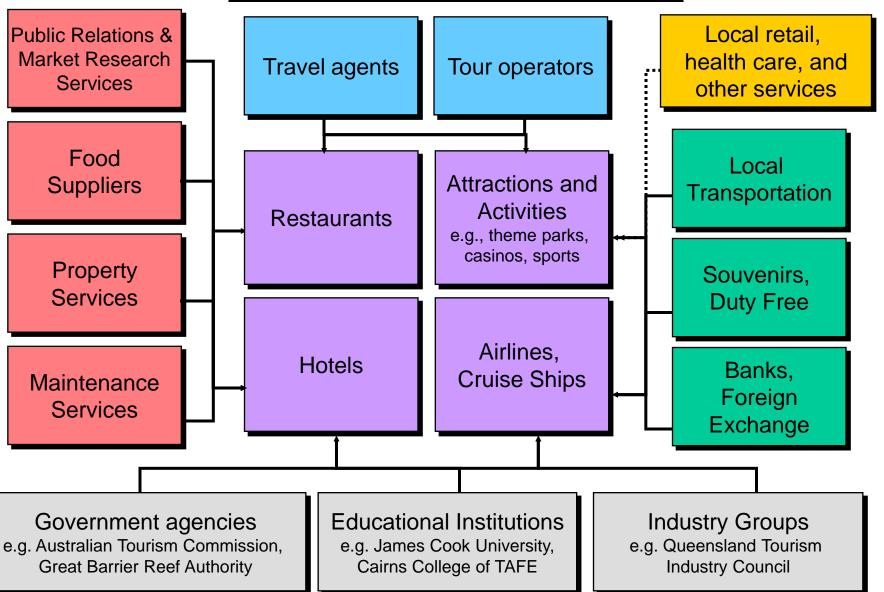
Note: Excludes three states (AK,ID,VT) where a single patentor accounts for more than 50% of patents and the top 5 patentors account for more than 80%. Source: U.S. Patent and Trademark Office; CHI Research; County Business Patterns; Michael E. Porter

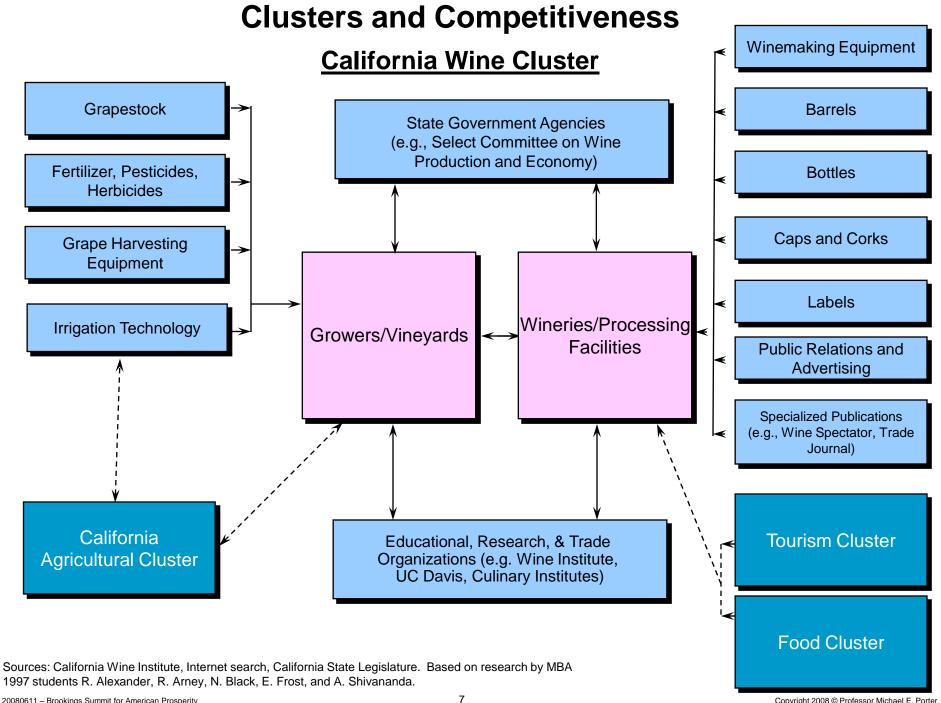
### **Productivity and the Business Environment**



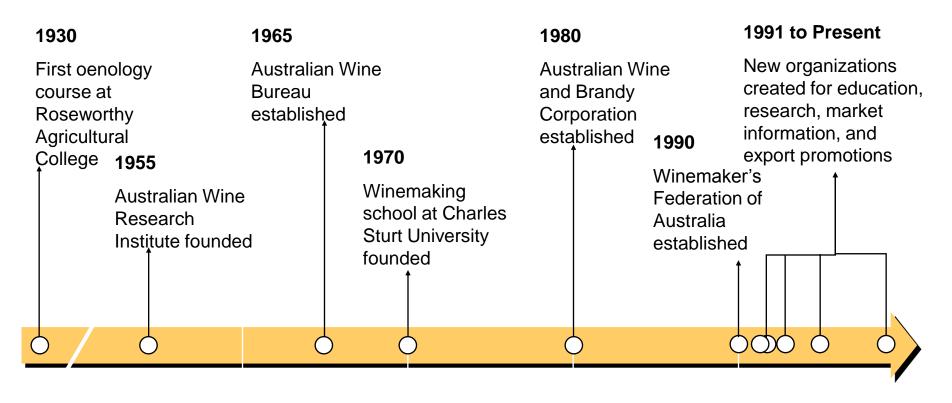
- Many things matter for competitiveness.
- Successful economic development is a process of successive upgrading, in which the business environment improves to enable increasingly sophisticated ways of competing

### Clusters and Competitiveness Tourism Cluster in Cairns, Australia





# Process of Cluster Development The Australian Wine Cluster



1950s	1960s	1970s	1980s	1990s	2005
Import of European winery technology	Recruiting of experienced foreign investors, e.g. Wolf Bass	Continued inflow of foreign capital and management	Creation of large number of new wineries	Surge in expo international acquisitions	rts and

# The Process of Economic Development Shifting Roles and Responsibilities

#### Old Model

 Government drives economic development through top down policy decisions and incentives

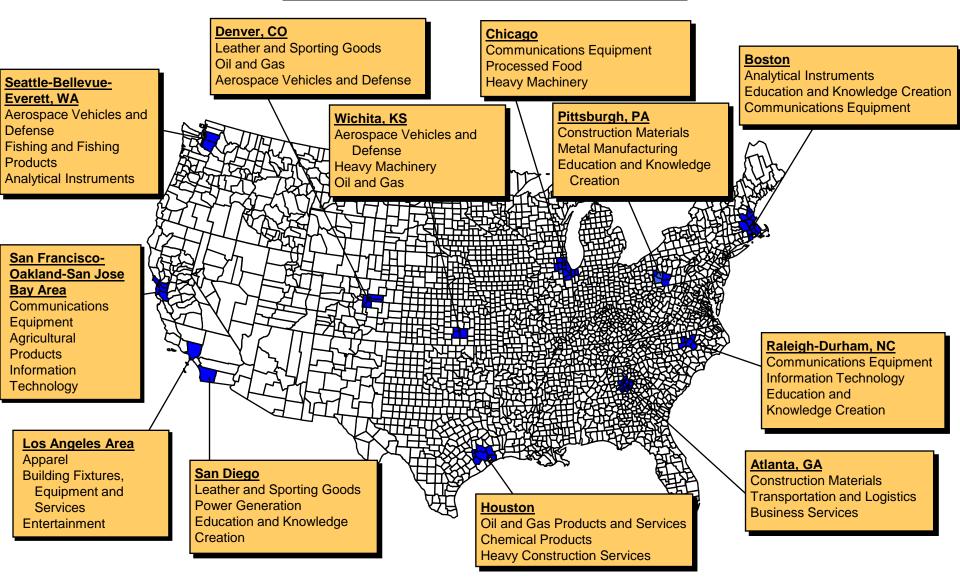


#### **New Model**

 Economic development is a collaborative process involving government at multiple levels, companies, teaching and research institutions, and private sector organizations

- Competitiveness is fundamentally a bottoms-up process in which many individuals, companies, and institutions participate
- Every community and cluster can take steps to enhance competitiveness

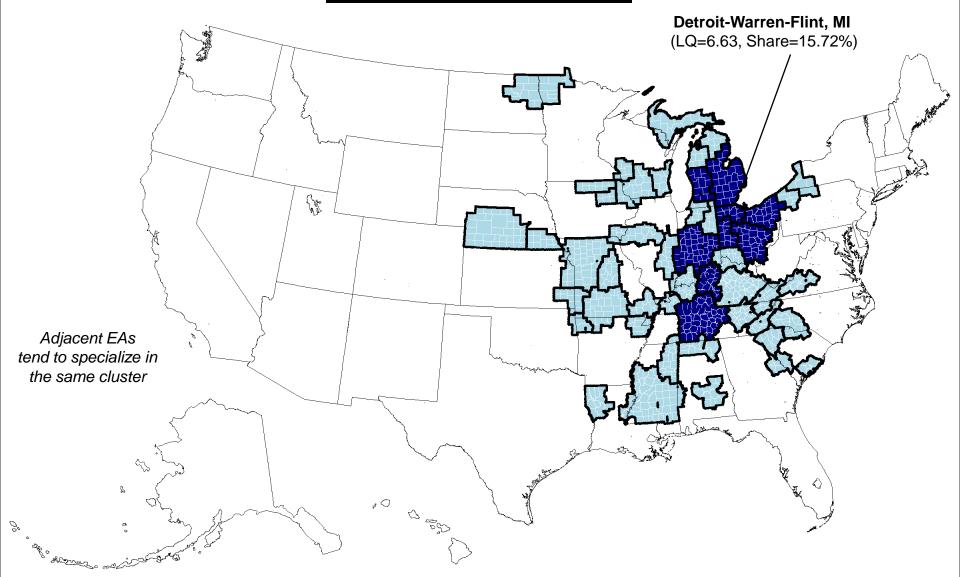
# Specialization of Regional Economies Selected U.S. Geographic Areas



Note: Clusters listed are the three highest ranking clusters in terms of share of national employment.

Source: Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School, 11/2006.

### Automotive Cluster Specialization by Economic Area, 2004



- Regions with high cluster specialization and high share of US employment (LQ>1.3 and top 10 employment)
- Regions high cluster specialization and with moderate share (LQ>1.3 and cluster employment > 1000)

**New York Metropolitan Area** Jewelry and Precious Metals (31.7%, +7.1%)Specialization by Traded Cluster, 1995-2005 20% Overall change in the New York Metro Share of US Employment: +0.04% Biopharmaceuticals 18% 16% Share of US Cluster Employment, 2005 Distribution Services Financial Services 14% Apparel **Publishing and Printing** 12% Education and 10% Transportation **Knowledge Creation Business Services** and Logistics Power Generation Entertainment Leather and 8% and Transmission Related Products New York Metro Overall Share of **Medical Devices** US Employment: 6.6% Hospitality and Tourism Lighting and Electrical Equipment Information Technology Building Fixtures, Equipment and Services Processed 4% Footwear Food **Plastics** Heavy Construction Services
Furniture
Agricultural Products
Aerospace Engines
Construction Materials Forest Products Tobacco • Sporting, Recreational and Children's Goods Metal Manufacturing 2% Automotive ( Heavy Machinery 0% -6.0% -5.0% -4.0% -3.0% -2.0% 0.0% 1.0% 2.0% 3.0% -1.0% Change in Share of US Cluster Employment, 1995-2005 100,000 Employees

**Development of Regional Economies Linkages Across Clusters** Fishing & **Textiles** (Entertainment) Fishing Prefabricated Hospitality **Products Enclosures** & Tourism Agricultural **Products Transportation Furniture** Distribution **Building** & Logistics Services Aerospace Fixtures. Construction Vehicles & **Equipment &** Materials Jewelry & Information | Defense Services **Precious** Tech. Processed Heavy Metals Lightning & Food **Business** Construction Electrical Services Analytical Services Equipment Education & Instruments Forest Power Knowledge Medical **Financial Products** Generation Creation **Devices** Services Communications **Publishing** Equipment & Printing Biopharma-Heavy ceuticals Machinery Production Motor Driven Chemical **Technology Products Apparel Products** Tobacco Oil & Leather & Gas Related Metal Automotive Manufacturing **Products Plastics** Aerospace **Engines** Footwear **Sporting** & Recreation Goods Note: Clusters with overlapping borders or identical shading have at least 20% overlap (by average of the proportion of tier1 industries shared in each direction.)

13

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# The Evolution of Regional Economies San Diego

Climate and Geography **Hospitality and Tourism** 

Transportation and Logistics

Sporting and Leather Goods

U.S. Military Aerospace Vehicles and Defense

Communications Equipment

**Analytical Instruments** 

**Power Generation** 

**Information Technology** 

Education and Knowledge Creation

**Medical Devices** 

Bioscience Research Centers

**Biotech / Pharmaceuticals** 

**1910 1930 1950 1970 1990** 

# Sources of Regional Prosperity <a href="Recent Statistical Findings">Recent Statistical Findings</a>

#### Drivers of Regional Job Growth, Wages, and Patenting

- Specialization in strong clusters
- Breadth of industries within each cluster
- Positions in related clusters
- Presence of the same cluster in neighboring regions

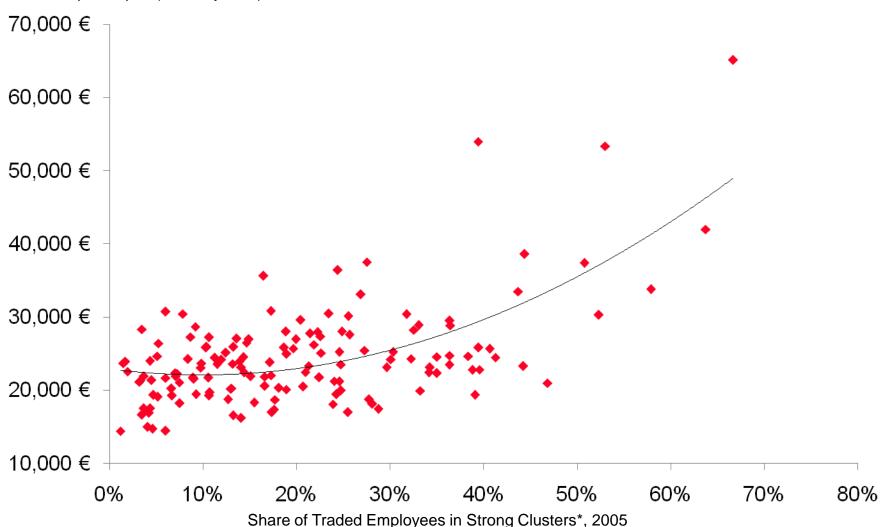
### Not significant

Positions in High-Tech clusters versus other clusters

15

# Clusters and Regional Prosperity <u>European Regions</u>

GDP per Capita (PPP adjusted), 2004



Note: Strong clusters defined by LQ>2; NUTS Regions excluding Portugal and Greece. Source: European Cluster Observatory. ISC/CSC cluster codes 1.0, dataset 20070510

#### Globalization and U.S. Economic Performance

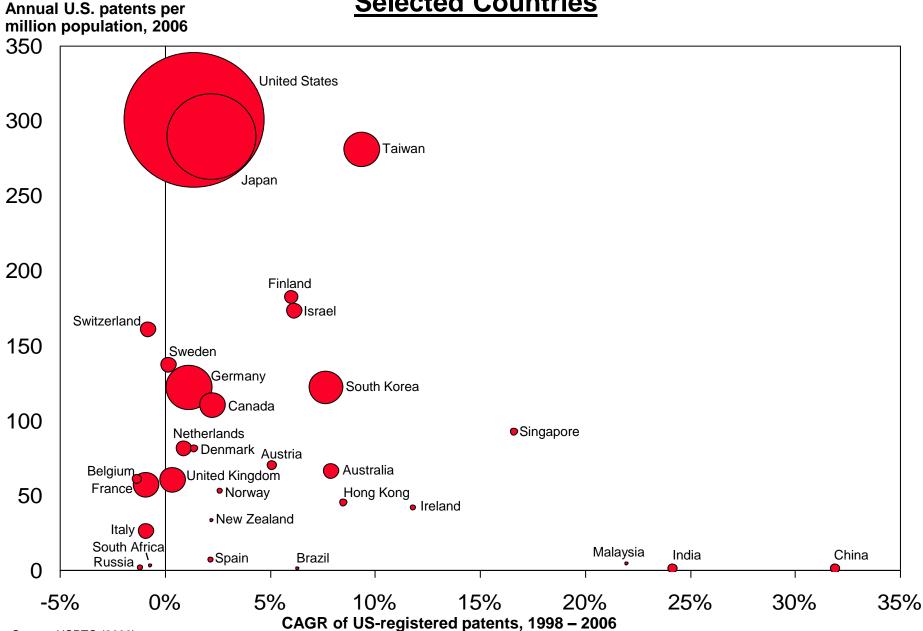
- The U.S. economy has registered remarkable economic performance BUT
- The value of education and skills have risen dramatically
- Less skilled Americans face more competition for work and restraints on wages
  - Exacerbated by low skilled immigration
- There is a high rate of job churn
  - High job creation but high job loss

## **Strategic Position of the United States**

#### **Core Strengths**

- Entrepreneurship
- Free and open competition
- Deep and efficient capital markets
- Innovation

# International Patenting Output Selected Countries

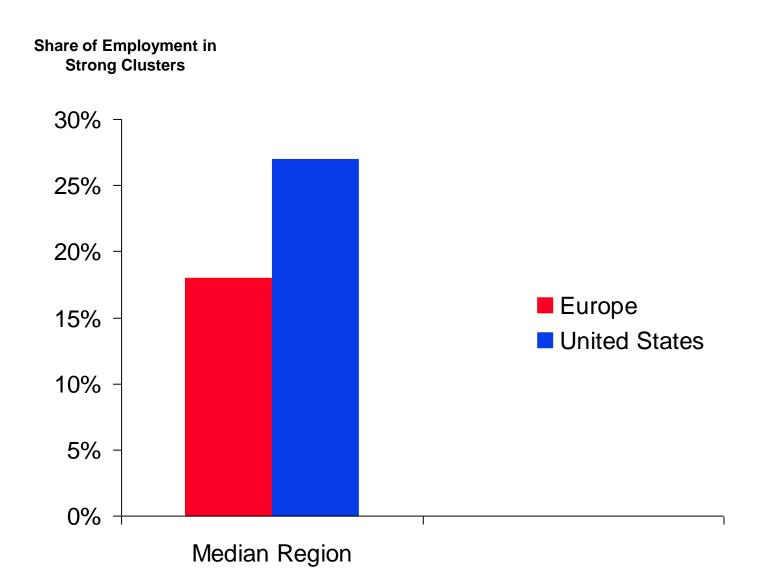


## **Strategic Position of the United States**

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- Economic decentralization

### **Cluster Strength in Europe versus the United States**



### **Strategic Position of the United States**

#### **Core Strengths**

- Entrepreneurship
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 The U.S. needs to preserve, renew and reinvest in these strengths, especially in competition and trade policy, financial market regulation, and inputs to innovation.

### **Strategic Position of the United States**

#### **Core Strengths**

<u>Weaknesses</u>

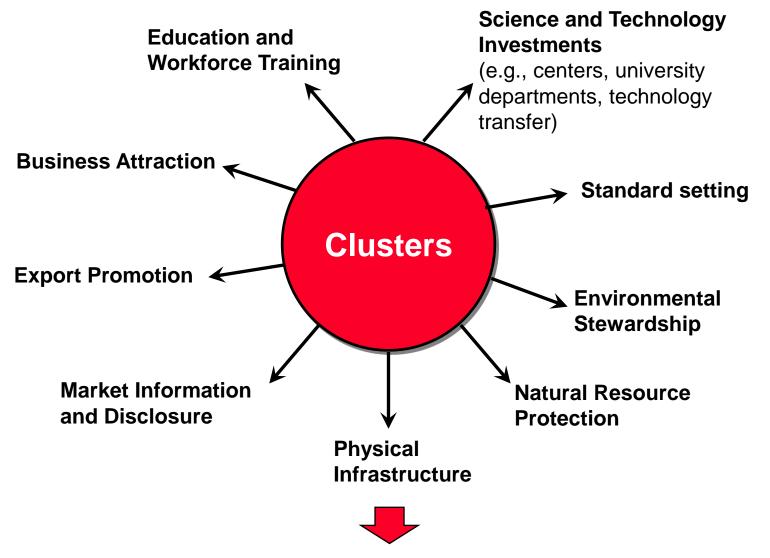
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- Innovation
- Economic decentralization

- Unnecessary costs of doing business
  - Regulation and litigation
  - Corporate tax rates/complexity
  - Energy and environmental inefficiency
  - Inadequate value from high health care spending
- Weak transitional security blanket
  - Retraining effectiveness
  - Health insurance access and mobility
  - Pension security
- Distortions in the international trading system
  - IP protection
  - Access to services markets in other countries
  - Distortions and subsidies
- Diminished U.S. leadership in international economic development
- Human resource challenges
  - Training Americans vs. low skilled immigration
  - K-12 ineffectiveness
  - Access to higher education

### **Agenda for the United States**

- Begin a fact-based dialogue on America's challenges
- Mount a U.S. competitiveness strategy
  - vs. quick fixes and false "solutions"
- Tackle America's human resource weaknesses
- Address weaknesses in the U.S. business environment
  - e.g., commit to open competition
  - Create an effective and efficient regulatory environment
- Renew America's innovation infrastructure
- Realign federal economic policy around regions and cluster development

### **Clusters and Economic Policy**



 Clusters provide a framework for implementing public policy and organizing public-private collaboration to enhance competitiveness

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