The Competitive Advantage of Greece: Moving to the Next Level

Professor Michael E. Porter
Institute for Strategy and Competitiveness
Harvard Business School

Athens, Greece
8 May, 2003
Perspectives on Firm Success

- Competitive advantage resides solely inside a company or in its industry
- Competitive success depends primarily on company choices
- Competitive advantage (or disadvantage) resides partly in the locations at which a company’s business units are based
- Cluster participation is an important contributor to competitiveness
What is Competitiveness?

• Competitiveness is determined by the **productivity** with which a nation uses its human, capital, and natural resources. Productivity sets a nation’s or region’s standard of living (wages, returns to capital, returns to natural resource endowments)
  
  – Productivity depends both on the **value** of products and services (e.g. uniqueness, quality) as well as the **efficiency** with which they are produced.
  
  – It is not **what** industries a nation competes in that matters for prosperity, but **how** firms compete in those industries
  
  – Productivity in a nation is a reflection of what both domestic and foreign firms **choose to do in that location**. The location of ownership is secondary for national prosperity.
  
  – The productivity of **“local”** industries is of fundamental importance to competitiveness, not just that of traded industries
  
  – Devaluation **does** not make a country more competitive

• Nations compete in offering the **most productive environment** for business

• The public and private sectors play **different but interrelated roles** in creating a productive economy
• Innovation is **more than just scientific discovery**
• There are **no low-tech industries**, only low-tech firms
Patenting Growth and Prosperity Growth
Selected OECD Countries


Compound annual growth rate of real GDP, 1990-2000

The Greek Economic Situation in 2003

• Greece has been among the leading European Union member countries in terms of **GDP growth** in the last five years

• Macroeconomic **progress** has been considerable, and Greece successfully entered the European Monetary Union in the first wave

**However**

• Much of the recent growth has been fueled by **low interest rates** after entry into the EMU and **access to EU structural funds**

• Despite some recent progress, Greece is still **lagging** behind the reforms other countries started much earlier

• Greece will receive **reduced EU funding** after 2006 and faces increasingly intense competition from EU accession countries in **Eastern Europe**

• Greece has **significant competitiveness challenges** that must be addressed if prosperity growth is to be sustainable
Comparative Economic Performance
Growth Rate of Real GDP, Selected Economies

Source: EIU (2002)
Comparative Economic Performance
Prosperity, Selected Economies

Source: World Development Indicators 2002
Greek Microeconomic Performance

- Greece has registered solid **labor productivity growth** in the last few years

**However**

- The overall **level** of labor productivity is still low
- Greece has been one of the few middle to high-income countries with **increasing unemployment** since 1995
  - The effects of corporate restructuring, labor force inflows from agriculture, higher participation of women, and immigrants have outweighed positive job creation
- Greece has a **weak position in exports**. Performance is better in service exports such as tourism and shipping
- Greece **innovation performance** lags all other EU member countries with the exception of Portugal
Labor Productivity Performance
Selected OECD Countries, GDP per Hour worked

Note: Total economy
Source: OECD (2001)
Unemployment Rate
Southern European Countries and Regions

Source: European Commission
Comparative Goods Export Performance
European Countries

Exports of Goods per Capita, 1998

Source: Eurostat
International Patenting Output

Annual U.S. patents per 1 million population, 2001


Innovation Performance
Southern European Countries and Regions

EU Patents per million population, 1997-99 average

Portugal: 2.7
Greece: 6.2
Spain: 18.5
Basque Country: 30.5
Italy: 59.7
France (South-West): 60.8
EU-15: 119.4

Source: European Commission
Determinants of Productivity and Productivity Growth

**Macroeconomic, Political, Legal, and Social Context for Development**

**Microeconomic Foundations of Development**

- A sound macroeconomic, political, legal, and social context creates the potential for competitiveness, **but is not sufficient**
- Competitiveness ultimately depends on improving the **microeconomic capability** of the economy and the **sophistication of local companies and local competition**
Global Competitiveness Report 2002
The Relationship Between Microeconomic Competitiveness and GDP Per Capita

Source: Global Competitiveness Report 2002
CAON Greece 2003 05-08-03 CK.ppt
Productivity, Innovation, and the Business Environment

Context for Firm Strategy and Rivalry

- A local context and rules that encourage investment and sustained upgrading
  - e.g., Intellectual property protection
- Meritocratic incentive system across institutions
- Open and vigorous competition among locally based rivals

Factor (Input) Conditions

- Presence of high quality, specialized inputs available to firms
  - Human resources
  - Capital resources
  - Physical infrastructure
  - Administrative infrastructure
  - Information infrastructure
  - Scientific and technological infrastructure
  - Natural resources

Demand Conditions

- Sophisticated and demanding local customer(s)
- Local customer needs that anticipate those elsewhere
- Unusual local demand in specialized segments that can be served nationally and globally

Related and Supporting Industries

- Access to capable, locally based suppliers and firms in related fields
- Presence of clusters instead of isolated industries

- Successful economic development is a process of successive economic upgrading, in which the business environment in a nation evolves to support and encourage increasingly sophisticated ways of competing
The California Wine Cluster

- California Agricultural Cluster
  - Grapestock
  - Fertilizer, Pesticides, Herbicides
  - Grape Harvesting Equipment
  - Irrigation Technology

- Winemaking Equipment
- Barrels
- Bottles
- Caps and Corks
- Labels
- Public Relations and Advertising
- Specialized Publications (e.g., Wine Spectator, Trade Journal)

- Educational, Research, & Trade Organizations (e.g. Wine Institute, UC Davis, Culinary Institutes)

- Growers/Vineyards

- Wineries/Processing Facilities

- State Government Agencies (e.g., Select Committee on Wine Production and Economy)

- Food Cluster
- Tourism Cluster

Sources: California Wine Institute, Internet search, California State Legislature. Based on research by MBA 1997 students R. Alexander, R. Arney, N. Black, E. Frost, and A. Shivananda.
The Norwegian Maritime Cluster

Norway has 0.1% of the world’s population, represents 1.0% of the world’s economy, yet accounts for 10% of world seaborne transportation.

Source: Sven Ullring, presented to M.I.T.
Clusters and Competitiveness

Clusters increase productivity and efficiency
- Efficient access to specialized inputs, services, employees, information, institutions, and “public goods” (e.g. training programs)
- Ease of coordination and transactions across firms
- Rapid diffusion of best practices
- Ongoing, visible performance comparisons and strong incentives to improve vs. local rivals

Clusters stimulate and enable innovation
- Enhanced ability to perceive innovation opportunities
- Presence of multiple suppliers and institutions to assist in knowledge creation
- Ease of experimentation given locally available resources

Clusters facilitate commercialization
- Opportunities for new companies and new lines of established business are more apparent
- Commercializing new products and starting new companies is easier because of available skills, suppliers, etc.

Clusters reflect the fundamental influence of externalities / linkages across firms and associated institutions in competition
Levels of Clusters

• There is often an array of clusters in a given field in different locations, each with different levels of specialization and sophistication.

• Global innovation centers, such as Silicon Valley in semiconductors, are few in number. If there are multiple innovation centers, they normally specialize in different market segments.

• Other clusters focus on manufacturing, outsourced service functions, or play the role of regional assembly or service centers.

• Firms based in the most advanced clusters often seed or enhance clusters in other locations in order to reduce the risk of a single site, access lower cost inputs, or better serve particular regional markets.

• The challenge for an economy is to move from isolated firms to an array of clusters, and then to upgrade the breadth and sophistication of clusters to more advanced activities.
Leading Footwear Clusters

Portugal
- Production
- Focus on short-production runs in the medium price range

Vietnam/Indonesia
- OEM Production
- Focus on the low cost segment mainly for the European market

China
- OEM Production
- Focus on low cost segment mainly for the US market

Romania
- Production subsidiaries of Italian companies
- Focus on lower to medium price range

Italy
- Design, marketing, and production of premium shoes
- Export widely to the world market

United States
- Design and marketing
- Focus on specific market segments like sport and recreational shoes and boots
- Manufacturing only in selected lines such as hand-sewn casual shoes and boots

Vietnam/Indonesia
- OEM Production
- Focus on the low cost segment mainly for the European market

Source: Research by HBS student teams in 2002
Institutions for Collaboration

**General**

- Chambers of Commerce
- Professional associations
- School networks
- University partner groups
- Religious networks
- Joint private/public advisory councils
- Competitiveness councils

**Cluster-specific**

- Industry associations
- Specialized professional associations and societies
- Alumni groups of core cluster companies
- Incubators

**Institutions for collaboration (IFC) are formal and informal organizations** that
- facilitate the exchange of information and technology
- conduct joint activities
- foster coordination among firms

**IFCs can improve the business environment by**
- creating relationships and level of trust that make them more effective
- defining of common standards
- conducting or facilitating the organization of collective action in areas such as procurement, information gathering, or international marketing
- defining and communicating common beliefs and attitudes
- providing mechanisms to develop a common economic or cluster agenda
# Institutions for Collaboration

## Selected Institutions for Collaboration, San Diego

**General**

- San Diego Chamber of Commerce
- San Diego MIT Enterprise Forum
- Corporate Director’s Forum
- San Diego Dialogue
- Service Corps of Retired Executives, San Diego
- San Diego Regional Economic Development Corporation
- Center for Applied Competitive Technologies
- San Diego World Trade Center
- UCSD Alumni
- San Diego Regional Technology Alliance
- San Diego Science and Technology Council
- Office of Trade and Business Development

**Cluster-Specific**

### Telecommunication
- Linkabit Alumni

### Biotech
- Hybritech Alumni
- Scripps Research Institute Alumni
- BIOCOMM
- UCSD Connect

Source: Clusters of Innovation project ([www.compete.org](http://www.compete.org))
Stages Of Competitive Development

Factor-Driven Economy

Investment-Driven Economy

Innovation-Driven Economy

Greece’s Competitiveness Agenda 2003

• Continue the macroeconomic progress
  • Upgrade the business environment
  • Foster cluster development
  • Create a regional strategy for Southeast Europe
  • Shift the roles of government and business in economic development
Macroeconomic Consolidation
Public Debt, Selected Countries

Source: EIU
Integration of Macro- and Microeconomic Reforms

Stability and confidence support investment and upgrading

Macro reform alone leads to short term capital inflows and growth spurts that ultimately are not sustainable

Micro reform is impeded by macroeconomic volatility that reduces company investment

Macroeconomic reform

Create the opportunity for productivity

Microeconomic reform

Required to achieve productivity

Productivity growth allows economic growth and rising incomes without inflation, making macroeconomic stability easier to achieve
Greece’s Competitiveness Agenda 2003

• Continue the macroeconomic progress

• Upgrade the business environment

• Foster cluster development

• Create a regional strategy for Southeast Europe

• Shift the roles of government and business in economic development
Factor (Input) Conditions
Greece’s Relative Position

Competitive Advantages
Relative to GDP per Capita

Country Ranking, Arrows indicate a change of 5 or more ranks since 1998

<table>
<thead>
<tr>
<th>Condition</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability of Scientists and Engineers</td>
<td>21</td>
</tr>
<tr>
<td>Ease of Access to Loans</td>
<td>31</td>
</tr>
<tr>
<td>University/Industry Research Collaboration</td>
<td>34</td>
</tr>
<tr>
<td>Judicial Independence</td>
<td>36</td>
</tr>
<tr>
<td>Local Equity Market Access</td>
<td>36</td>
</tr>
<tr>
<td>Telephone/Fax Infrastructure Quality</td>
<td>38</td>
</tr>
<tr>
<td>Venture Capital Availability</td>
<td>38</td>
</tr>
<tr>
<td>Financial Market Sophistication</td>
<td>40</td>
</tr>
<tr>
<td>Extent of Bureaucratic Red Tape</td>
<td>41</td>
</tr>
<tr>
<td>Intellectual Property Protection</td>
<td>41</td>
</tr>
</tbody>
</table>

Competitive Disadvantages
Relative to GDP per Capita

Country Ranking, Arrows indicate a change of 5 or more ranks since 1998

<table>
<thead>
<tr>
<th>Condition</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Management Schools</td>
<td>62</td>
</tr>
<tr>
<td>Administrative Burden for Start-Ups</td>
<td>61</td>
</tr>
<tr>
<td>Quality of Public Schools</td>
<td>52</td>
</tr>
<tr>
<td>Quality of Scientific Research Institutions</td>
<td>51</td>
</tr>
<tr>
<td>Electricity Supply Quality</td>
<td>49</td>
</tr>
<tr>
<td>Overall Infrastructure Quality</td>
<td>48</td>
</tr>
<tr>
<td>Port Infrastructure Quality</td>
<td>48</td>
</tr>
<tr>
<td>Railroad Infrastructure Quality</td>
<td>48</td>
</tr>
<tr>
<td>Police Protection of Businesses</td>
<td>47</td>
</tr>
<tr>
<td>Adequacy of Public Sector Legal Recourse</td>
<td>43</td>
</tr>
<tr>
<td>Air Transport Infrastructure Quality</td>
<td>43</td>
</tr>
<tr>
<td>Quality of Math and Science Education</td>
<td>42</td>
</tr>
</tbody>
</table>

Note: Rank by countries; overall Greece ranks 43 out of 80 countries (41 on National Business Environment, 28 on GDP pc 2001)

Source: Global Competitiveness Report 2002
Educational Attainment
Southern European Countries and Regions

Share of 25-59 year old by level of educational attainment

- **France (South-West)**
  - High: 32%
  - Medium: 46%
  - Low: 22%

- **EU-15**
  - High: 36%
  - Medium: 43%
  - Low: 21%

- **Greece**
  - High: 49%
  - Medium: 33%
  - Low: 18%

- **Basque**
  - High: 52%
  - Medium: 18%
  - Low: 30%

- **Italy**
  - High: 54%
  - Medium: 36%
  - Low: 10%

- **Spain**
  - High: 62%
  - Medium: 16%
  - Low: 22%

- **Portugal**
  - High: 78%
  - Medium: 12%
  - Low: 10%

Source: European Commission
## U.S. Patenting by Greek Institutions

<table>
<thead>
<tr>
<th>Organization</th>
<th>U.S. Patents Issued from 1996 to 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. INNOVAL MANAGEMENT LIMITED</td>
<td>6</td>
</tr>
<tr>
<td>2. INSTITUTE FOR MOLECULAR BIOLOGY &amp; BIOTECHNOLOGY/FORTH</td>
<td>5</td>
</tr>
</tbody>
</table>

### Patents by Organization

**Commonwealth of Massachusetts**

<table>
<thead>
<tr>
<th>Organization</th>
<th>Patents Issued from 1997 to 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> MASSACHUSETTS INSTITUTE OF TECHNOLOGY</td>
<td>518</td>
</tr>
<tr>
<td><strong>2</strong> GENERAL HOSPITAL CORPORATION</td>
<td>296</td>
</tr>
<tr>
<td><strong>3</strong> EMC CORPORATION</td>
<td>269</td>
</tr>
<tr>
<td><strong>4</strong> DIGITAL EQUIPMENT CORPORATION</td>
<td>261</td>
</tr>
<tr>
<td><strong>5</strong> POLAROID CORPORATION</td>
<td>213</td>
</tr>
<tr>
<td><strong>6</strong> ANALOG DEVICES, INC.</td>
<td>167</td>
</tr>
<tr>
<td><strong>7</strong> MILLENNIUM PHARMACEUTICALS, INC.</td>
<td>165</td>
</tr>
<tr>
<td><strong>8</strong> HARVARD UNIVERSITY</td>
<td>150</td>
</tr>
<tr>
<td><strong>9</strong> COMPAQ COMPUTER CORPORATION, INC.</td>
<td>147</td>
</tr>
<tr>
<td><strong>10</strong> SUN Microsystems, Inc.</td>
<td>143</td>
</tr>
<tr>
<td><strong>11</strong> BOSTON SCIENTIFIC CORPORATION</td>
<td>135</td>
</tr>
<tr>
<td><strong>12</strong> ACUSHNET COMPANY</td>
<td>130</td>
</tr>
<tr>
<td><strong>13</strong> GENETICS INSTITUTE, INC.</td>
<td>127</td>
</tr>
<tr>
<td><strong>14</strong> GILLETTE COMPANY</td>
<td>112</td>
</tr>
<tr>
<td><strong>15</strong> BRIGHAM AND WOMEN'S HOSPITAL</td>
<td>107</td>
</tr>
<tr>
<td><strong>16</strong> RAYTHEON COMPANY</td>
<td>101</td>
</tr>
<tr>
<td><strong>17</strong> GENERAL ELECTRIC COMPANY</td>
<td>99</td>
</tr>
<tr>
<td><strong>18</strong> HEWLETT-PACKARD COMPANY</td>
<td>96</td>
</tr>
<tr>
<td><strong>19</strong> CHILDREN'S MEDICAL CENTER CORPORATION</td>
<td>93</td>
</tr>
<tr>
<td><strong>20</strong> QUANTUM CORP. (CA)</td>
<td>93</td>
</tr>
<tr>
<td><strong>21</strong> COGNEX CORPORATION</td>
<td>90</td>
</tr>
<tr>
<td><strong>22</strong> DANA-FARBER CANCER INSTITUTE</td>
<td>90</td>
</tr>
<tr>
<td><strong>23</strong> JOHNSON &amp; JOHNSON PROFESSIONAL INC.</td>
<td>90</td>
</tr>
<tr>
<td><strong>24</strong> BOSTON UNIVERSITY</td>
<td>84</td>
</tr>
<tr>
<td><strong>25</strong> SEPRACOR INC.</td>
<td>84</td>
</tr>
</tbody>
</table>

**Note:** Shading indicates universities, research institutions, and other government agencies

**Source:** US Patent and Trademark Office (www.uspto.gov). Author’s analysis.
Government R&D Spending
Selected European Countries

Public R&D Spending as % of GDP, 2001 (or last available)

-0.2% -0.1% 0% 0.1% 0.2% 0.3% 0.4% 0.5% 0.6% 0.7% 0.8% 0.9% 1.0%

Change of Public R&D Spending as % of GDP, last three years

-10% -5% 0% 5% 10% 15%

Source: EU Scoreboard
Context for Firm Strategy and Rivalry

Greece’s Relative Position

Competitive Advantages Relative to GDP per Capita

- Tariff Liberalization 8
- Costs of Other Firms’ Illegal/Unfair Activities 31
- Hidden Trade Barrier Liberalization 31
- Effectiveness of Anti-Trust Policy 40
- Intensity of Local Competition 41

Competitive Disadvantages Relative to GDP per Capita

- Efficacy of Corporate Boards 76
- Cooperation in Labor-Employer Relations 56
- Extent of Distortive Government Subsidies 50
- Favoritism in Decisions of Government Officials 50
- Decentralization of Corporate Activity 43
- Extent of Locally Based Competitors 42

Note: Rank by countries; overall Greece ranks 43 out of 80 countries (41 on National Business Environment, 28 on GDP pc 2001)
Source: Global Competitiveness Report 2002
Regulation of Product and Labor Markets
Selected OECD Countries

Intensity of Regulation in the Product Market

Intensity of Regulation in the Labor Market

Ease of Business Formation
Selected OECD Countries

Cost of Business Formation relative to GDP per capita

Demand Conditions
Greece’s Relative Position

Competitive Advantages Relative to GDP per Capita

Country Ranking, Arrows indicate a change of 5 or more ranks since 1998

Buyer Sophistication 37

Competitive Disadvantages Relative to GDP per Capita

Country Ranking, Arrows indicate a change of 5 or more ranks since 1998

Laws Relating to Information Technology 67
Government Procurement of Advanced Technology Products 56
Consumer Adoption of Latest Products 52
Stringency of Environmental Regulations 50

Note: Rank by countries; overall Greece ranks 43 out of 80 countries (41 on National Business Environment, 28 on GDP per Capita 2001)
Source: Global Competitiveness Report 2002
### Related and Supporting Industries

**Greece’s Relative Position**

#### Competitive Advantages Relative to GDP per Capita

Country Ranking, Arrows indicate a change of 5 or more ranks since 1998

<table>
<thead>
<tr>
<th>Factor</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>State of Cluster Development</td>
<td>67</td>
</tr>
<tr>
<td>Extent of Product and Process Collaboration</td>
<td>65</td>
</tr>
<tr>
<td>Local Availability of Components and Parts</td>
<td>60</td>
</tr>
<tr>
<td>Local Availability of Specialized Research and Training Services</td>
<td>57</td>
</tr>
<tr>
<td>Local Availability of Process Machinery</td>
<td>54</td>
</tr>
<tr>
<td>Local Supplier Quality</td>
<td>49</td>
</tr>
<tr>
<td>Local Supplier Quantity</td>
<td>47</td>
</tr>
</tbody>
</table>

#### Competitive Disadvantages Relative to GDP per Capita

Country Ranking, Arrows indicate a change of 5 or more ranks since 1998

<table>
<thead>
<tr>
<th>Factor</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note: Rank by countries; overall Greece ranks 43 out of 80 countries (41 on National Business Environment, 28 on GDP pc 2001)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Global Competitiveness Report 2002
# Company Operations and Strategy

**Greece’s Relative Position 2002**

### Competitive Advantages Relative to GDP per Capita

<table>
<thead>
<tr>
<th>Factor</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extent of Marketing</td>
<td>30</td>
</tr>
<tr>
<td>Control of International Distribution</td>
<td>38</td>
</tr>
<tr>
<td>Value Chain Presence</td>
<td>40</td>
</tr>
<tr>
<td>Production Process Sophistication</td>
<td>42</td>
</tr>
</tbody>
</table>

### Competitive Disadvantages Relative to GDP per Capita

<table>
<thead>
<tr>
<th>Factor</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliance on Professional Management</td>
<td>67</td>
</tr>
<tr>
<td>Willingness to Delegate Authority</td>
<td>63</td>
</tr>
<tr>
<td>Capacity for Innovation</td>
<td>57</td>
</tr>
<tr>
<td>Extent of Staff Training</td>
<td>57</td>
</tr>
<tr>
<td>Company Spending on R&amp;D</td>
<td>56</td>
</tr>
<tr>
<td>Breadth of International Markets</td>
<td>47</td>
</tr>
<tr>
<td>Extent of Branding</td>
<td>47</td>
</tr>
<tr>
<td>Extent of Incentive Compensation</td>
<td>47</td>
</tr>
<tr>
<td>Degree of Customer Orientation</td>
<td>44</td>
</tr>
</tbody>
</table>

*Note: Rank by countries; overall the Greece ranks 43 out of 80 countries (47 on Company Operations and Strategy, 28 on GDP pc 2001)

Source: Global Competitiveness Report 2002
Private R&D Spending
Selected European Countries

Public R&D Spending as % of GDP, 2001 (or last available)

Change of Public R&D Spending as % of GDP, last three years

Source: EU Scoreboard 2002
Greece’s Competitiveness Agenda 2003

- Continue the macroeconomic progress
- Upgrade the business environment
- **Foster cluster development**
- Create a regional strategy for Southeast Europe
- Shift the roles of government and business in economic development
Greek Export Performance By Broad Sector  
1995-2000

- Greece’s average change in world goods export share: -0.03%

- Greece’s average goods export share: 0.19%

- Greece is *loosing position* in some of its largest export clusters

Source: UNCTAD Trade Data. Author’s analysis.
Tourism Cluster Performance

Tourism Receipts per Capita, 2000

- Greece has a strong tourism cluster that increased revenues per tourists in the last few years.

Source: World Tourism Organization
Public / Private Cooperation in Cluster Upgrading
Minnesota’s Medical Device Cluster

Context for Firm Strategy and Rivalry

- Aggressive trade associations (Medical Alley Association, High Tech Council)
- Effective global marketing of the cluster and of Minnesota as the “The Great State of Health”
- Full-time “Health Care Industry Specialist” in the department of Trade and Economic Development

Factor (Input) Conditions

- Joint development of vocational-technical college curricula with the medical device industry
- Minnesota Project Outreach exposes businesses to resources available at university and state government agencies
- Active medical technology licensing through University of Minnesota
- State-formed Greater Minnesota Corp. to finance applied research, invest in new products, and assist in technology transfer

Demand Conditions

- State sanctioned reimbursement policies to enable easier adoption and reimbursement for innovative products

Related and Supporting Industries

- Aggressive trade associations (Medical Alley Association, High Tech Council)
- Effective global marketing of the cluster and of Minnesota as the “The Great State of Health”
- Full-time “Health Care Industry Specialist” in the department of Trade and Economic Development

Context for Firm Strategy and Rivalry
The Australian Wine Cluster
Trade Performance

Australian Wine Exports in million US Dollars

$0 $100 $200 $300 $400 $500 $600 $700 $800 $900 $1,000


Australian Wine World Export Market Share

0% 1% 2% 3% 4% 5% 6% 7%

Value
Market Share

Source: UN Trade Statistics
The Australian Wine Cluster
History

1930
First oenology course at Roseworthy Agricultural College

1955
Australian Wine Research Institute founded

1950s
Import of European winery technology

1965
Australian Wine Bureau established

1960s
Recruiting of experienced foreign investors, e.g. Wolf Bass

1970
Winemaking school at Charles Sturt University founded

1970s
Continued inflow of foreign capital and management

1980
Australian Wine and Brandy Corporation established

1980s
Creation of large number of new wineries

1990
Winemaker’s Federation of Australia established

1991 to 1998
New organizations created for education, research, market information, and export promotions

1990s
Surge in exports and international acquisitions

The Australian Wine Cluster
Recently founded Institutions for Collaboration

**Winemakers’ Federation of Australia**
- Established in 1990
- Focus: Public policy representation of companies in the wine cluster
- Funding: Member companies

**Cooperative Centre for Viticulture**
- Established in 1991
- Focus: Coordination of research and education policy in viticulture
- Funding: Other cluster organizations

**Australian Wine Export Council**
- Established in 1992
- Focus: Wine export promotion through international offices in London and San Francisco
- Funding: Government; cluster organizations

**Grape and Wine R&D Corporation**
- Established in 1991 as statutory body
- Focus: Funding of research and development activities
- Funding: Government; statutory levy

**Wine Industry Information Service**
- Established in 1998
- Focus: Information collection, organization, and dissemination
- Funding: Cluster organizations

**Wine Industry National Education and Training Council**
- Established in 1995
- Focus: Coordination, integration, and standard maintenance for vocational training and education
- Funding: Government; other cluster organizations

Appropriate Roles of Government in Cluster Development

• A successful cluster policy builds on **sound overall economic policies**

• Government should support the development of **all clusters**, not choose among them

• Government policy should **reinforce established and emerging clusters** rather than attempt to create entirely new ones

• Government’s role in cluster initiatives is as **facilitator and participant**. The most successful cluster initiatives are a public-private partnership
Cluster Policy versus Industrial Policy

- **Industrial Policy**
  - Target desirable industries / sectors
  - Focus on domestic companies
  - Intervene in competition (e.g., protection, industry promotion, subsidies)
  - Centralizes decisions at the national level

- **Cluster-based Policy**
  - **All** clusters can contribute to prosperity
  - Domestic and foreign companies both enhance productivity
  - Relax impediments and constraints to productivity
  - Emphasize cross-industry linkages / complementarities
  - Encourage initiative at the state and local level

**Distort competition**

**Enhance competition**
Greece’s Competitiveness Agenda 2003

- Continue the macroeconomic progress
- Upgrade the business environment
- Foster cluster development
- Create a regional strategy for Southeast Europe
- Shift the roles of government and business in economic development
Influences on Competitiveness
Multiple Geographic Levels

- World Economy
- Broad Economic Areas
- Groups of Neighboring Nations
- Nations
- States, Provinces
- Cities, Metropolitan Areas

World Economy

Broad Economic Areas

Groups of Neighboring Nations

Nations

States, Provinces

Cities, Metropolitan Areas
Cross-National Regions and Economic Strategy

Traditional Views
• Regions as free trade zones; regions as economic unions (e.g., United States, European Union)

New View
• A regional strategy as a powerful tool to enhance competitiveness in autonomous countries
• Internal trade and investment
  – Gains from internal trade and investment
    AND
• Company operations and strategy
  – Enhancing the competitive capability of firms
  – Expanding trade in non-traditional export industries
• Business environment
  – Mutual benefits to the productivity of the business environment through policy coordination that captures external economies and the benefits of specialization in institutions and infrastructure across borders
• Cluster development
  – Cross-border cluster specialization and integration
• Foreign investment
  – Enhancing interest and investment in the region by the international community
• Economic policy process
  – Improving economic policy formulation and implementation at the national level
Cross-National Economic Coordination
Alternate Geographic Levels

- World Economy
  - Broad Economic Areas
    - Groups of Neighboring Nations
      - Nations
        - States, Provinces
        - Cities, Metropolitan Areas
  - e.g. European Union
  - e.g. South-Eastern Europe
  - e.g. Greece
Cross-National Economic Coordination
Illustrative Policy Areas

Factor (Input) Conditions

• Improve regional transportation infrastructure
• Create an efficient energy network
• Upgrade/link regional communications
• Upgrade/link financial markets
• Upgrade higher education through facilitating specialization and student exchanges
• Expand cross-border business and financial information access and sharing
• Coordinate activities to ensure personal safety

Context for Strategy and Rivalry

• Coordinate macroeconomic policies
• Eliminate trade and investment barriers within the region
• Simplify cross-border regulations and paperwork
• Guarantee minimum basic investor protections

Demand Conditions

• Agree on foreign investment promotion guidelines to limit forms of investment promotion that do not enhance productivity
• Coordinated competition policy

Related and Supporting Industries

• Set minimum environmental standards
• Set minimum safety standards
• Establish reciprocal consumer protection laws
• Establish ongoing upgrading process in clusters that cross national borders, e.g.
  – Tourism
  – Agribusiness
  – Textiles and Apparel
  – Information Technology

Regional Governance

• Share best practices in government operations
• Improve regional institutions
  – Regional development bank
  – Dispute resolution mechanisms
  – Policy coordination body
• Develop a regional marketing strategy
Greece’s Competitiveness Agenda 2003

• Continue the macroeconomic progress

• Upgrade the business environment

• Foster cluster development

• Create a regional strategy for Southeast Europe

• Shift the roles of government and business in economic development
Shifting Responsibilities for Economic Development

**Old Model**

- Government drives economic development through policy decisions and incentives

**New Model**

- Economic development is a collaborative process involving government at multiple levels, companies, teaching and research institutions, and institutions for collaboration
Roles of Government in Economic Development

- **Macroeconomic, political, legal, and social context**
  - Establish a *stable and predictable* macroeconomic, legal, and political environment
  - Improve the *social conditions* of citizens

- **General microeconomic business environment**
  - Improve the availability, quality, and efficiency of *cross-cutting or general purpose inputs, infrastructure, and institutions*
  - Set *overall rules and incentives* governing competition that encourage productivity growth

- **Clusters**
  - Facilitate *cluster development and upgrading*

- **Process of Economic Change**
  - Create institutions and *processes for upgrading competitiveness* that inform citizens and mobilize the private sector, government at all levels, educational and other institutions, and civil society to take action
Role of the Private Sector in Economic Development

• A company’s competitive advantage is partly the result of the *local environment*

• Company membership in a cluster offers *collective benefits*

• Private investment in “*public goods*” is justified

• Take an *active role* in upgrading the local infrastructure

• Nurture *local suppliers* and attract new supplier investments

• Work closely with local *educational and research institutions* to upgrade *quality* and create specialized programs addressing *cluster needs*

• Provide government with *information* and *substantive input* on regulatory issues and constraints bearing on cluster development

• Focus *corporate philanthropy* on enhancing the local business environment

• An important role for *trade associations*
  – Greater influence
  – Cost sharing
Selected References


Web resources

• Institute for Strategy and Competitiveness  www.isc.hbs.edu

• ISC Cluster Mapping Data (US)  data.isc.hbs.edu/isc/index.jsp

• Cluster of Innovation Initiative
  – Council on Competitiveness  www.compete.org
  – Monitor Company  www.monitor.com