Thailand’s Competitiveness:
Key Issues in Five Clusters

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This presentation draws on ideas from Professor Porter’s articles and books, in particular, *The Competitive Advantage of Nations* (The Free Press, 1990), “Building the Microeconomic Foundations of Competitiveness,” in *The Global Competitiveness Report 2002*, (World Economic Forum, 2002), “Clusters and the New Competitive Agenda for Companies and Governments” in *On Competition* (Harvard Business School Press, 1998), and joint work with the Sasin Graduate School of Business on Thai competitiveness financed by the NESDB. 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 [www.isc.hbs.edu](http://www.isc.hbs.edu)
Thailand’s Competitiveness Agenda
The Role of Clusters

• Thailand’s future competitiveness depends on progress in two dimensions
  – Cross-cluster issues affecting the whole economy
  – Clusters

• Clusters provide the opportunity to move to a new level of private-public partnership. They can also be a test-ground for developing solutions to economy wide problems

However

• Cluster initiatives alone are less effective, if they are not part of a overarching approach to improve competitiveness on the national and regional level
Topics

• The Concept of Clusters

• Key Issues in Five Thai Clusters

• From Analysis to Action
The California Wine Cluster

- **Grapes & Vineyards**
  - **Irrigation Technology**
  - **Grape Harvesting Equipment**
  - **Fertilizer, Pesticides, Herbicides**

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

- **Wineries/Processing Facilities**
  - **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**

- **Tourism Cluster**

- **Food 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.
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

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**
Clusters as a Tool For Economic Policy

Overview

• A new way of thinking about an economy and organizing economic development efforts

• Better aligned with the nature of competition and sources of competitive advantage. Clusters capture important linkages in terms of technology, skills, information, marketing and customer needs that cut across firms and industries. Such linkages are fundamental to competition and, especially, to the direction and pace of innovation

• Recast the role of the private sector, government, trade associations and educational or research institutions

• Brings together firms of all sizes

• Creates a forum for constructive business-government dialog

• A means to identify common opportunities, not just common problems

• Provides guidance for both economic and social policies
Topics

• The Concept of Clusters

• Key Issues in Five Thai Clusters

• From Analysis to Action
Five Clusters in the Thai Economy

Employment and Wages

- The five clusters account for roughly 1/3 of Thai employment, with wages more than twice the national average.

Note: Software industry data is for 2001
Source: NESDB Data. Author’s analysis.
Thailand’s Export Performance By Broad Sector
1995-2000

- Thailand is losing position in areas of traditional strengths, and grows in others.

Source: UNCTAD Trade Data, World Tourism Organization, Author’s analysis.
Clusters

- Automotive

- Fashion

- Food

- Tourism

- Software
Automotive Cluster
Overview

• The Thai automotive cluster has the **opportunity** to leverage the existing breadth of activities to become a significant regional production hub. However, **success is far from automatic** and requires determined action.

• The cluster includes a **wide breadth** of foreign and domestic assemblers, part producers, and specialized suppliers. It is significant in the Thai economy, but has a **weak world market position** despite recent growth. Its **productivity level is low**; cost competitiveness is based on low factor input costs.

• The strength of the cluster business environment lies in the strong presence of **locally-based suppliers**, the strong **physical infrastructure**, and the access to the skills of **foreign assemblers**.

• Its weaknesses are the mismatch between available **work force skills** and company needs, the lack of **innovative capacity**, and the **distortions to competition** from tariffs and complex tax rates.

• Key action areas include the improvement of the **cluster business environment** in education, institutions for technology assimilation, and the tariff/tax structures, the closing of **gaps in the cluster**, for example production machinery, and the creation of more effective **private sector-led cluster institutions**.

Source: Based on Sasin-team analysis
The Thai Automotive Cluster

Assemblers
- Motorcycles
- Passenger Cars
- Pickup Trucks

Components and Module Makers
(1st tier)
- Engines, Drivetrains, Steering, Suspension, Brake, Wheel, Tire, Bodyworks, Interiors, Electronics and Electrical Systems

Parts (2nd & 3rd tiers)
- Stamping, Plastics, Rubber, Machining, Casting, Forging, Function, Electrical, Trimming

Steel Distribution
Plastics Distribution
Electronics
Glass
Leather & Fabric
Machinery
Tools
Mold&Die
Jig&Fixture

Government
Education and Technical Institutions
Associations

Distribution
Finance
Testing
Specialized Consultants
Services

Source: Sasin-team analysis

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Automotive Clusters in the World Economy
Top 25 Exporting Countries by Export Value, 2000

Revealed Comparative Advantage (RCA). 2000

Change in World Market Share, 1995-2000

Note: RCA is defined as a country's market share in the cluster divided by the country world market share across all exports.
Source: UNCTAD Trade Data. Author's analysis.
Pick-up Trucks
The Role of Demand Conditions

• Thai consumers predominantly buy pick-up trucks that can be used for **many different commercial and private uses**

• Manufacturers react to the demand by offering **more varieties of pick-up truck models** in Thailand than in any other national market

• Thailand has a **strong and growing position** in the world export market for pick-up trucks
  – This is the only segment (apart from tires and rubber-related products) in the automotive industry in which Thailand has a revealed comparative advantage
  – Thailand is the largest producer of pick-up trucks worldwide behind the United States

• **An opportunity for Thai companies** to extend their capabilities in the value chain and compete successfully on world markets

Source: Based on Sasin-team analysis
Action Areas

• Upgrade the **cluster business environment**
  – E.g., Education
  – E.g., Technology assimilation
  – E.g., Tariff and taxation structure

• Fill **gaps in the cluster**
  – E.g., Production machinery
  – E.g., Specialized services in testing and certification

• Create **private sector-led cluster institutions** for collaboration
  – Collective action of the private sector requires effective supporting institutional structures

• Cluster participants need to **rethink competitiveness**
  – Real competitiveness is productivity, not “competitive” low wages
  – Current thinking accepts a low productivity, low wage equilibrium that will be unsustainable as the economy progresses

Source: Based on Sasin-team analysis
Clusters

• Automotive

• Fashion

• Food

• Tourism

• Software
Fashion Cluster
Overview

• Thailand is home to clusters in textiles/apparels, jewellery/gems, and leather products. These clusters face similar challenges in moving away from being no-brand suppliers to foreign producers, but they are not one cluster.

• The three clusters are important in the Thai economy, but are all losing world market position from still high levels. The cluster is shallow, concentrating on the labor-intensive stages of production, often using foreign inputs.

• The strength of the cluster business environment lies in the availability of an experienced low- to medium skill work force, the high level of competition between domestic companies, and in the strong physical infrastructure.

• Its weaknesses are the focus on competition based on low factor input costs, the low level of cooperation within the clusters’ different production stages, and the distortions from government trade policy.

• Key action areas include the development of capabilities in the value chain, especially in marketing, distribution, and branding, the creation of cluster-wide institutions, the upgrading of government policies in trade protection and export promotion, and the improvement of cluster business environment conditions in, for example, education and the availability of machinery.

Source: Based on Sasin-team analysis
Thai Fashion Clusters
Business Environment Assessment

Context for Firm Strategy and Rivalry

- High degree of competition, especially among small- and medium sized producers
- Competition based on price; subcontracting with foreign companies
- Comparatively high tariffs for imported raw materials

Factor (Input) Conditions

- Availability of specialized skills in specific activities based on old traditions
- Sufficient transportation infrastructure
- Lack of competent designers
- Lack of adequate domestic research and development institutions

Demand Conditions

- Unsophisticated home demand
  - Sophisticated demand for traditional Thai designs

Related and Supporting Industries

- Weak linkages between production stages within the clusters
- Reliance on imported production machinery
- Dependence on foreign designs

Source: Based on Sasin-team analysis
Thailand’s Export Performance in “Fashion” Clusters
1995-2000

Source: UNCTAD Trade Data. Author’s analysis.
Textiles/Apparel Clusters in the World Economy
Top 25 Exporting Countries by Export Value, 2000

Revealed Comparative Advantage (RCA). 2000

Note: RCA is defined as a country's market share in the cluster divided by the country world market share across all exports.
Source: UNCTAD Trade Data. Author's analysis.
Jewelry/Diamonds Sub-Clusters in the World Economy
Top 25 Exporting Countries by Export Value, 2000

Change in World Market Share, 1995-2000

Revealed Comparative Advantage (RCA). 2000

Note: RCA is defined as a country’s market share in the cluster divided by the country world market share across all exports
Source: UNCTAD Trade Data. Author’s analysis.

*Only 2000 data available
Action Areas

• Increase capabilities in the value chain
  – E.g., Design
  – E.g., Distribution
  – E.g., Marketing

• Create cluster-wide institutions to create linkages between currently antagonistic stages in the value chain

• Upgrade the cluster business environment
  – E.g., Education
  – E.g., Presence of machinery suppliers
  – E.g., Tariff structure
  – E.g., Export promotion

• Despite sharing similar challenges for upgrading competitiveness, a case-by-case approach will be necessary to develop cluster specific action plans

Source: Based on Sasin-team analysis
Clusters

- Automotive
- Fashion
- **Food**
- Tourism
- Software
Food Cluster
Overview

• The Thai food cluster faces the **challenge** to move from being a supplier of commodity food products to distant foreign markets to become a provider of distinct food products with own brands, access to distribution channels, and direct understanding of customer needs.

• The cluster is important in the Thai economy, but is losing **world market position** from a still high level. Its **productivity level is low**; companies compete based on low factor input costs. The cluster is shallow, concentrating on the **labor-intensive stages** of food processing using both domestic and foreign raw materials.

• The strength of the cluster business environment is the strong **physical infrastructure** and the availability of an **experienced** low- to medium skill work force.

• Its weakness is the focus on competition based on **low factor input costs**, the lack of **innovative product development capacity** and control of **distribution channels** in distant global export markets, and the low level of **coordination across the cluster**.

• Key action areas include **streamlining government policy** towards the cluster, upgrading the **business environment**, e.g. education and assimilation capability of modern machinery, and developing **capabilities in the value chain**.

Source: Based on Sasin-team analysis
Food/Beverages Clusters in the World Economy

Top 25 Exporting Countries by Export Value, 2000

Change in World Market Share, 1995-2000

Note: RCA is defined as a country's market share in the cluster divided by the country world market share across all exports.

Source: UNCTAD Trade Data. Author's analysis.

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Note: RCA is defined as a country’s market share in the cluster divided by the country world market share across all exports.
Source: UNCTAD Trade Data. Author’s analysis.
# Thai Food Export, 2000

<table>
<thead>
<tr>
<th>Subcluster</th>
<th>World Market Share</th>
<th>Change in Share 1995 - 2000</th>
<th>Value (in $1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetables, Prepared</td>
<td>21.64%</td>
<td>-9.42%</td>
<td>$4,044</td>
</tr>
<tr>
<td>Fish, Processed</td>
<td>18.48%</td>
<td>2.63%</td>
<td>$2,091,233</td>
</tr>
<tr>
<td>Rice, Cereals, Prepared</td>
<td>16.94%</td>
<td>-3.46%</td>
<td>$1,667,088</td>
</tr>
<tr>
<td>Molasses</td>
<td>15.94%</td>
<td>1.07%</td>
<td>$38,723</td>
</tr>
<tr>
<td>Shell Fish, Fresh/Chilled/Frozen</td>
<td>13.83%</td>
<td>-3.88%</td>
<td>$1,865,019</td>
</tr>
<tr>
<td>Fruit, Preserved, Prepared</td>
<td>12.24%</td>
<td>-1.63%</td>
<td>$322,397</td>
</tr>
<tr>
<td>Rice, Cereals</td>
<td>9.50%</td>
<td>-0.36%</td>
<td>$83,258</td>
</tr>
<tr>
<td>Sugar</td>
<td>9.29%</td>
<td>-1.54%</td>
<td>$640,107</td>
</tr>
<tr>
<td>Vegetables, Processed</td>
<td>7.87%</td>
<td>-5.20%</td>
<td>$23,689</td>
</tr>
<tr>
<td>Meats, Processed</td>
<td>4.87%</td>
<td>2.97%</td>
<td>$349,391</td>
</tr>
<tr>
<td>Other Animal Food</td>
<td>3.26%</td>
<td>0.67%</td>
<td>$290,093</td>
</tr>
<tr>
<td>Starches, Sugars</td>
<td>3.20%</td>
<td>-0.67%</td>
<td>$134,215</td>
</tr>
<tr>
<td>Fruit, Preserved, Prepared</td>
<td>3.10%</td>
<td>-0.47%</td>
<td>$66,200</td>
</tr>
<tr>
<td>Vegetables, Preserved</td>
<td>2.68%</td>
<td>-0.70%</td>
<td>$130,211</td>
</tr>
<tr>
<td>Crude Vegetable Materials</td>
<td>2.33%</td>
<td>0.31%</td>
<td>$16,727</td>
</tr>
<tr>
<td>Food Preparation Products</td>
<td>2.19%</td>
<td>0.36%</td>
<td>$324,241</td>
</tr>
<tr>
<td>Fish, Fresh/Chilled/Frozen</td>
<td>2.04%</td>
<td>-0.48%</td>
<td>$379,540</td>
</tr>
<tr>
<td>Fruit Juice</td>
<td>1.82%</td>
<td>-0.50%</td>
<td>$109,842</td>
</tr>
<tr>
<td>Vegetables</td>
<td>1.56%</td>
<td>-1.18%</td>
<td>$261,082</td>
</tr>
<tr>
<td>Other Beverages</td>
<td>1.44%</td>
<td>-0.23%</td>
<td>$72,358</td>
</tr>
<tr>
<td>Spices</td>
<td>1.25%</td>
<td>0.42%</td>
<td>$23,674</td>
</tr>
<tr>
<td>Meats, Fresh/Chilled/Frozen</td>
<td>1.20%</td>
<td>0.09%</td>
<td>$427,738</td>
</tr>
<tr>
<td>Other Fruits</td>
<td>1.16%</td>
<td>0.34%</td>
<td>$196,749</td>
</tr>
<tr>
<td>Fats</td>
<td>1.14%</td>
<td>0.84%</td>
<td>$31,924</td>
</tr>
<tr>
<td>Sugar, Processed</td>
<td>1.04%</td>
<td>0.12%</td>
<td>$50,397</td>
</tr>
</tbody>
</table>

Note: Line indicates benchmark for revealed comparative advantage
Source: UNCTAD Trade Data. Author's analysis.
Action Areas

• Increase **capabilities in the value chain** by, for example, internationalizing in new markets
  – E.g., Product Development
  – E.g., Marketing and Branding
  – E.g., Distribution

• Streamline **government policy** towards the cluster
  – Coordination unit for policies of the wide range of government agencies affecting the food cluster
  – Concerted strategy for food cluster in international trade talks

• Upgrade the **cluster business environment**
  – E.g., Education
  – E.g., Presence of machinery suppliers
  – E.g., Tariff structure
  – E.g., Export promotion

• The food cluster covers many different product groups that will often require specific action, not unlike the different fashion clusters

Source: Based on Sasin-team analysis
Clusters

- Automotive
- Fashion
- Food
- Tourism
- Software
Tourism Cluster
Overview

- Thailand’s tourism cluster has grown successfully, but is now facing the challenge of securing past success and moving to the next stage. The cluster needs to move from competing on assets endowed by nature to assets created by the cluster.

- Tourism is one of the most important clusters in the Thai economy. It is significant internationally, but has lost position recently. The cluster has a broad range of tourism related activities, but lacks effective cooperation across the cluster.

- The strength of the cluster business environment lies in the access to beautiful locations and a rich culture, the stiff competition between local tourist agencies, a generally good physical infrastructure, and a broad range of related services in most tourism locations.

- Its weaknesses are the focus on price-based competition, the mismatch between workforce skills and the needs of companies, the lack of common quality standards and marketing efforts, and selected problems in physical infrastructure.

- Key action areas include creating effective service standards, aligning educational programs with cluster needs, providing more value-added attractions, and unifying the cluster’s many institutions to develop a shared strategic vision.

Source: Based on Sasin-team analysis
CAON Thailand CLUSTERS 2003 05-05-03 CK.ppt
Thai Tourism Cluster

Core activities

Suppliers
- Food
- Souvenirs
- Construction and building material

Service providers
- PR & Media
- Financial services

Core activities
- Shopping
- International transportation
- Restaurants
- Tour operator
  - Tour Agency
- Entertainment
- Domestic transportation
- Hotels

Education and Training Institute
- The International Hotel and Tourism Industry Management School (I-TIM)
- Dusit Thani College
- …

Government Agencies
- Ministry of Tourism and Sports
- Tourism Authority of Thailand (TAT)
- Ministry of Natural Resources and Environment
- Ministry of Commerce
- …

Source: Sasin-team analysis
Tourism Clusters in the World Economy

Receipt/tourist 2000(USD)

% CAGR Receipt/tourist, 1997-2000

Source: World Tourism Organization (WTO), Sasin team analysis

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Economic Performance of the Thai Tourism Cluster
Revenue per Tourist over Time

Receipts per Tourist in Thailand

Source: TAT, World Tourism Organization
Action Areas

- Create effective **service standards** that reflect the goals of Thai tourism

- Upgrade the **cluster business environment**
  - E.g., Education
  - E.g., Value-added attractions
  - E.g., Accessibility (airline market regulation, cruise ship facilities, …)

- **Unifying the cluster’s many institutions** to develop a shared strategic vision

- The **reaction to SARS** exemplifies the lack of long-term strategic direction
  - Developing **domestic demand** is important, but will require a more long-term approach
  - **Reducing prices** does not alleviate international tourists’ concerns but erodes the clusters pricing position in the long term

Source: Based on Sasin-team analysis
Clusters

• Automotive

• Fashion

• Food

• Tourism

• Software
Software Cluster
Overview

• Thailand’s software cluster is small and has no significant position on world markets, although some companies are successful in niches like graphic design. The potential for Thai software is as a cross-cluster resource for the domestic economy and in services related to other strong Thai clusters,

• Thai software companies pay high wages, but employ few people and have insignificant exports. Rather than functioning as a cluster, Thai software companies operate as suppliers to many different Thai industries and clusters

• The companies’ business environment has few clear strengths. Companies have access to software parks, pockets of specialized skills, and an advantageous geographic location between India and Japan

• Its weaknesses are the low availability of specialized skills, the weak information technology infrastructure, the weak science and technology system (universities, IPR protection), and unsophisticated local demand

Source: Based on Sasin-team analysis
The Role of Software for the Thai Economy

Export Cluster

- Niches
- Related to other, stronger clusters
- Need for upgrading the currently unfavorable cluster business environment

Cross-Cluster Resource

- Enable more effective IT use in all sectors of the economy
- Need for upgrading the IT absorption capability of Thai companies
Action Agenda

- **Consolidation of government policies** related to software in ministry for ICT
- Liberalization of the **telecommunications markets**
- Implementation of **IT legislation**, especially on IPR protection

- Cross-cluster resource
  - Initiatives with other industry associations to identify barriers for IT use
  - Inclusion of IT education in vocational training programs

- Export cluster
  - Further investments in educational programs for programmers and other specialized employees
  - Concerted effort to certify software companies
  - Build relations with strong export clusters
  - Strengthening of the cluster association

Source: Based on Sasin-team analysis
Thailand’s Vision: World Leader in Niche Markets

**Selected Niches**

- **Vision communicates feasible and ambitious goal**
  - Automotive: *Detroit of Asia*
  - Tourism: *Asia Tourism Capital*

- **Vision is removed from clusters’ current challenges**
  - Fashion: *Asia Tropical Fashion*
  - Food: *Kitchen of the World*

- **Vision fails to set the right direction for the cluster**
  - Software: *World Graphic Design Center*
Topics

• The Concept of Clusters

• Key Issues in Five Thai Clusters

• From Analysis to Action
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
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
The Role of Government in Cluster Development: 
Illustrative Cluster-Specific Policies

Context for Firm Strategy and Rivalry:
- Eliminate barriers to local competition
- Focus efforts to attract foreign investment around clusters
- Focus export promotion around clusters
- Organize relevant government departments around clusters

Factor (Input) Conditions:
- Create specialized education and training programs
- Establish local university research efforts in cluster-related technologies
- Support cluster-specific information gathering and compilation
- Improve specialized transportation, communications, and other infrastructure required by cluster

Demand Conditions:
- Create streamlined, pro-innovation regulatory standards affecting the cluster to:
  - reduce regulatory uncertainty
  - stimulate early adoption
  - encourage innovation or new products and processes
- Sponsor independent testing, product certification, and rating services for cluster products/services
- Act as sophisticated buyer of the cluster’s products/services

Related and Supporting Industries:
- Sponsor forums to bring together cluster participant
- Cluster-specific efforts to attract suppliers and service providers from other locations
- Establish cluster-oriented free trade zones, industrial parks, or supplier parks
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](image)

![Enhance competition](image)
Company Attitudes Towards Clusters

- Create more competition
- Lose employees to spinoffs
- Bid up costs

- Increase efficiency
- Increase flexibility
- Increase information
- Foster innovation
- Most cluster participants are not direct competitors
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
Private Sector Influences on Cluster Upgrading

**Context for Firm Strategy and Rivalry**
- Market jointly through trade fairs and delegations
- Collaborate with government export promotion efforts
- Create directories of cluster participants

**Factor (Input) Conditions**
- Jointly develop specialized vocational, technical, college and university curricula
- Sponsor specialized university research centers
- Collect cluster information through trade associations
- Maintain close liaison with infrastructure providers to address specialized cluster needs (e.g., data communications, logistics)
- Develop courses for managers on regulatory, quality, and managerial issues

**Demand Conditions**
- Work with government to streamline regulations and modify them to encourage innovation
- Establish local testing and standards organizations

**Related and Supporting Industries**
- Establish a cluster-based trade association
- Encourage local supplier formation and attract local investments by suppliers based elsewhere through individual and collective efforts
New Roles of Industry Associations

<table>
<thead>
<tr>
<th>Traditional Roles</th>
<th>New Roles</th>
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<tbody>
<tr>
<td>• Lobby government</td>
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<tr>
<td>- Trade and regulations</td>
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<tr>
<td>• Convene meetings for networking</td>
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<td>• Negotiate with government</td>
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<td>- Trade and regulations</td>
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<tr>
<td>• Information collection and dissemination</td>
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<td>- E.g. regular benchmarking</td>
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<td>• Joint marketing</td>
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<td>- E.g. trade fairs, missions</td>
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<td>• Training</td>
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<tr>
<td>- E.g. curriculum for managers</td>
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<td>- Close collaboration with outside educational institutions</td>
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<td>- Sponsoring of targeted scholarships</td>
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<td>• Research</td>
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<td>- E.g university partnerships</td>
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<td>- Standard setting and testing</td>
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<td>- Specialized research institutes</td>
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<tr>
<td>• Procurement</td>
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<td>- E.g. joint purchasing programs</td>
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<td>• Environmental</td>
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<td>- E.g. demonstration projects</td>
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<td>- Research sponsorship</td>
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Cluster activation and enabling
Cluster Activation

Getting Started

• Bring together cluster companies, trade associations, educational institutions, and government agencies

• Discuss the present analysis of the clusters
  – Identify need for further analysis
  – Prioritize critical issues for action

• Organize working groups to develop action plans to address the critical issues identified

• While the government and outside agencies can provide start-up support and facilitation, successful cluster efforts tend to be driven by private sector leaders