Irish Competitiveness:
Entering a New Economic Era

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Institute for Strategy and Competitiveness
Harvard Business School

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Further information on Professor Porter’s work and the Institute for Strategy and Competitiveness is available at www.isc.hbs.edu
Comparative Economic Performance
Real GDP Growth Rates

Countries sorted by 1990-2002 annual real GDP growth rate (CAGR)

- Ireland
- Singapore
- S Korea
- Taiwan
- Australia
- US
- Canada
- Spain
- Germany
- UK
- Finland
- France
- Japan
- Switzerland

Source: EIU (2003)
Comparative Economic Performance

Source: EIU (2003)
Ireland’s Economic Situation 2003

• Ireland has been one of the most dynamic and successful countries in the global economy over the last decade
  – Ireland’s open economy provided an attractive platform to serve European markets
  – Large inflows of foreign direct investment fuelled growth
  – A flexible labor supply from returning unemployed workers and Irish emigrants kept wage growth at bay

• Ireland is now confronted with new and more challenging circumstances
  – Labor supply is constrained; wage costs are rising
  – Global demand is subdued, especially in sectors heavily represented in the Irish economy
  – The European economic landscape is changing with Central and Eastern European countries entering the European Union

• A new economic strategy will be needed to maintain and grow Irish prosperity
Foundations of Prosperity

Prosperity

Productivity

Innovative Capacity

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
Comparative Labor Productivity Performance

Note: Irish GNP per capita is about 20% lower than the reported GDP per capita figure due to large dividend outflows to foreign investors. We use GNP per capita for Ireland because it is more representative. For other countries GDP and GNP are very similar.

Source: WEO
Decomposing Irish GDP per Capita Growth

Source: EIU (2003)
Total Factor Productivity Performance
Selected OECD Countries

Source: IMF, 2001
Comparative Inward Foreign Investment
Selected Advanced Economies

FDI Stocks as % of GDP, Average 1998-2000

FDI Inflows as % of Gross Fixed Capital Formation, Average 1998-2000

Note: Germany’s FDI inflows in this period were exceptionally high due to the Vodafone-Mannesmann takeover in 2000
• Ireland’s world export share has increased strongly over the last decade

Source: WTO (2002)
Ireland’s Economic Performance
GDP versus GNP

GDP CAGR, 1998-2002: 8.6%
GNP CAGR, 1998-2002: 3.4%

Net Investment Income Outflow as % of GDP

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP Growth</th>
<th>GNP Growth</th>
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<tr>
<td>1999</td>
<td>15.6%</td>
<td>8.0%</td>
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<tr>
<td>2000</td>
<td>14.6%</td>
<td>6.2%</td>
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<tr>
<td>2001</td>
<td>14.7%</td>
<td>7.5%</td>
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<tr>
<td>2002</td>
<td>18.3%</td>
<td>4.7%</td>
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</tbody>
</table>

Source: EIU (2003)
Source: EIU (2003)
Ireland Entering a New Era

- Recent Economic Performance
- Foundations of Microeconomic Competitiveness
- Challenges to Irish Competitiveness
Determinants of Productivity and Productivity Growth

- 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 2003
The Relationship Between Business Competitiveness and GDP Per Capita

Note: For Ireland we use GNP per capita which excludes payments of foreign company subsidiaries to parent companies.
Source: Global Competitiveness Report 2003
Productivity 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 regionally 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

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.
Boston Life Sciences Cluster

Health and Beauty Products

Surgical Instruments and Suppliers

Medical Equipment

Dental Instruments and Suppliers

Ophthalmic Goods

Diagnostic Substances

Containers

Analytical Instruments

Teaching and Specialized Hospitals

Biological Products

Biopharmaceutical Products

Research Organizations

Cluster Organizations
MassMedic, MassBio, others

Specialized Business Services
Banking, Accounting, Legal

Specialized Risk Capital
VC Firms, Angel Networks

Specialized Research Service Providers
Laboratory, Clinical Testing

Educational Institutions
Harvard University, MIT, Tufts University, Boston University, UMass
Leading Footwear Clusters

**Portugal**
- Production
- Focus on short-production runs in the 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

**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

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

Source: Research by HBS student teams in 2002
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
Institutions for Collaboration
Selected Massachusetts Organizations, Life Sciences

**Life Sciences Industry Associations**
- Massachusetts Biotechnology Council
- Massachusetts Medical Device Industry Council
- Massachusetts Hospital Association

**General Industry Associations**
- Associated Industries of Massachusetts
- Greater Boston Chamber of Commerce
- High Tech Council of Massachusetts

**Economic Development Initiatives**
- Massachusetts Technology Collaborative
- Mass Biomedical Initiatives
- Mass Development
- Massachusetts Alliance for Economic Development

**University Initiatives**
- Harvard Biomedical Community
- MIT Enterprise Forum
- Biotech Club at Harvard Medical School
- Technology Transfer offices

**Informal networks**
- Company alumni groups
- Venture capital community
- University alumni groups

**Joint Research Initiatives**
- New England Healthcare Institute
- Whitehead Institute For Biomedical Research
- Center for Integration of Medicine and Innovative Technology (CIMIT)
Influences on Competitiveness
Multiple Geographic Levels

- World Economy
- Broad Economic Areas
- Groups of Neighboring Nations
- Nations
- States, Provinces
- Cities, Metropolitan Areas
Specialization of Regional Economies
Select U.S. Geographic Areas

- **Seattle-Bellevue-Everett, WA**
  - Aerospace Vehicles and Defense
  - Fishing and Fishing Products
  - Analytical Instruments

- **San Francisco-Oakland-San Jose Bay Area**
  - Communications Equipment
  - Agricultural Products
  - Information Technology

- **Los Angeles Area**
  - Apparel
  - Building Fixtures, Equipment and Services
  - Entertainment

- **San Diego**
  - Leather and Sporting Goods
  - Power Generation
  - Education and Knowledge Creation

- **Austin, TX**
  - Communications Equipment
  - Transportation and Logistics
  - Business Services

- **Wichita, KS**
  - Aerospace Vehicles and Defense
  - Heavy Machinery
  - Oil and Gas

- **Chicago**
  - Communications Equipment
  - Processed Food
  - Heavy Machinery

- **Pittsburgh, PA**
  - Construction Materials
  - Metal Manufacturing
  - Education and Knowledge Creation

- **Atlanta, GA**
  - Construction Materials
  - Transportation and Logistics
  - Business Services

- **Raleigh-Durham, NC**
  - Communications Equipment
  - Information Technology
  - Education and Knowledge Creation

- **Wichita, KS**
  - Aerospace Vehicles and Defense
  - Heavy Machinery
  - Oil and Gas

- **Denver, CO**
  - Leather and Sporting Goods
  - Oil and Gas
  - Aerospace Vehicles and Defense

- **Boston**
  - Analytical Instruments
  - Knowledge Creation

- **San Francisco-Oakland-San Jose Bay Area**
  - Communications Equipment
  - Agricultural Products
  - Information Technology

- **San Diego**
  - Leather and Sporting Goods
  - Power Generation
  - Education and Knowledge Creation

- **Houston**
  - Heavy Construction Services
  - Oil and Gas
  - Aerospace Vehicles and Defense

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
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
Transition to a New Economic Strategy
Ireland: A New Era

• Recent Economic Performance

• Foundations of Microeconomic Competitiveness

• Challenges to Irish Competitiveness
Ireland’s Competitive Situation 2003

• Many of Ireland’s traditional competitive advantages are **eroding**
  – Competing locations have caught up on in terms of market opening and business friendly regulations and tax structure
  – With rising cost levels, Ireland’s traditional position as a low-cost location to serve European markets becomes **untenable**

• Ireland faces **weaknesses** in supporting higher value competition and needs to develop **new strengths** to emerge as an **innovation economy**

• Ireland’s current economic policy is beginning to address some of these challenges, but progress on **implementation** is less clear

• There is not yet a **consensus** in Irish society about the problem or the solutions. Too many take Irish prosperity **for granted**
Business Competitiveness Index
Ireland’s Position over Time

GDP per capita rank, 2002: 9

Source: Global Competitiveness Report 2003
The Relationship Between Business Competitiveness and GDP Per Capita

Note: For Ireland we use GNP per capita which excludes payments of foreign company subsidiaries to parent company.

Source: Global Competitiveness Report 2003
Competitiveness Agenda for Ireland

- Move from low cost to superior productivity
  - Address weaknesses in the business environment
  - Strengthen innovative capacity

- Develop robust clusters

- Redefine the institutional structure for economic development

- Decentralize economic policy-making
Assessing the Irish Business Environment

Context for Firm Strategy and Rivalry

+ Attractive tax structure
+ Low level of intrusive regulations

Demand Conditions

+ Easy access to European markets
+ English language
+ Increasing supply of high-skilled employees

Related and Supporting Industries

+ Developing clusters in financial services, pharmaceuticals, chemicals, and information technology

Factor (Input) Conditions

+ Easy access to European markets
+ English language
+ Increasing supply of high-skilled employees
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

Education in Science & Technology

Selected Countries

Share of Science & Technology graduates in the age 20 – 29 population, 2000 or latest

Source: EU Scoreboard 2002
Assessing the Irish Business Environment

Context for Firm Strategy and Rivalry

– Low intensity of **domestic competition**
– Companies concentrate on **low value-added parts** of the value chain
– Few Irish companies reach sufficient size to **compete internationally**

Demand Conditions

– Weak **environmental regulations**
– Most buyers not very **demanding**

Factor (Input) Conditions

– Insufficient transportation infrastructure
– Low **R&D spending**
– Increasing levels of **bureaucracy**
– Stock of **advanced human resources** is limited

Related and Supporting Industries

– Few specialized **suppliers**
Competitive Advantages Relative to GDP per Capita

Country Ranking, Arrows indicate a change of 5 or more ranks since 2000

- Ease of Access to Loans: 4
- Venture Capital Availability: 8
- Quality of Educational System: 10
- University/Industry Research Collaboration: 11
- Quality of Public Schools: 12
- Quality of Scientific Research Institutions: 14
- Quality of Management Schools: 16

Competitive Disadvantages Relative to GDP per Capita

Country Ranking, Arrows indicate a change of 5 or more ranks since 2000

- Overall Infrastructure Quality: 59
- Railroad Infrastructure Quality: 59
- Port Infrastructure Quality: 58
- Air Transport Infrastructure Quality: 47
- Telephone/Fax Infrastructure Quality: 41
- Extent of Bureaucratic Red Tape: 30
- Internet users per 100 people (2002): 28
- Local Equity Market Access: 27
- Police Protection of Businesses: 26
- Judicial Independence: 24
- Patents per million Population (2002): 23
- Adequacy of Public Sector Legal Recourse: 23
- Administrative Burden for Start-Ups: 23

Note: Rank by countries; overall Ireland ranks 9 on GDP per Capita 2002
Source: Global Competitiveness Report 2003
## Context for Firm Strategy and Rivalry

### Ireland’s Relative Position

<table>
<thead>
<tr>
<th>Competitive Advantages Relative to GDP per Capita</th>
<th>Competitive Disadvantages Relative to GDP per Capita</th>
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</thead>
<tbody>
<tr>
<td>Foreign Ownership of Companies</td>
<td>Centralization of Economic Policy-making 75</td>
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<tr>
<td>Prevalence of Mergers and Acquisitions</td>
<td>Extent of Locally Based Competitors 36</td>
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<td>Regulation of Securities Exchanges</td>
<td>Favoritism in Decisions of Government Officials 35</td>
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<tr>
<td>Business Costs of Corruption</td>
<td>Intensity of Local Competition 31</td>
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<tr>
<td>Effectiveness of Anti-Trust Policy</td>
<td>Extent of Distortive Government Subsidies 28</td>
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<td>Tariff Liberalization</td>
<td>Intellectual Property Protection 25</td>
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<td>Efficacy of Corporate Boards</td>
<td>Decentralization of Corporate Activity 25</td>
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<td>Hidden Trade Barrier Liberalization</td>
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<tr>
<td>Existence of Bankruptcy Law</td>
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<tr>
<td>Protection of Minority Shareholders</td>
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</tbody>
</table>

Note: Rank by countries; overall Ireland ranks 9 on GDP per Capita 2002

Source: Global Competitiveness Report 2003
Recent Policy Initiatives

• Transportation infrastructure projects (Euro 5.5bn) included in the National Development Plan, 2000 – 2006

• Strengthening of the antitrust authority

• Single regulatory authority for financial markets

Issues

• Limited acceptance of the relationship between local competition and competitiveness, even in a small open economy

Company Operations and Strategy
Ireland’s Relative Position 2002

Competitive Advantages
Relative to GDP per Capita

Country Ranking, Arrows
indicate a change of 5 or more
ranks since 2000

Extent of Regional Sales 5
Reliance on Professional Management 12
Extent of Incentive Compensation 14
Extent of Branding 15
Willingness to Delegate Authority 15

Competitive Disadvantages
Relative to GDP per Capita

Country Ranking, Arrows
indicate a change of 5 or more
ranks since 2000

Degree of Customer Orientation 29 ↓
Extent of Marketing 23 ↓
Control of International Distribution 23
Breadth of International Markets 23
Extent of Staff Training 22

Note: Rank by countries; overall Ireland ranks 9 on GDP per Capita 2002
Source: Global Competitiveness Report 2003
Competitiveness Agenda for Ireland

- Move from low cost to superior productivity
  - Address weaknesses in the business environment
  - **Strengthen innovative capacity**

- Develop robust clusters

- Redefine the institutional structure for economic development

- Decentralize economic policy-making
Growth Rate of GDP and Patents
Selected Countries

Real GDP Growth, 1990 - 2002


Adj. $R^2$: 0.448

Note: * The share of a country’s patents filed between 1994 and 1998 that were highly cited in 1999.
Source: CHI Patent, National Science Foundation and Council on Competitiveness data. Author’s analysis.
## Innovative Capacity Index
### 2003 Rankings

<table>
<thead>
<tr>
<th>Rank</th>
<th>Scientists &amp; Engineers Index</th>
<th>Innovation Policy Index</th>
<th>Cluster Environment Index</th>
<th>Linkages Index</th>
<th>Operations and Strategy Index</th>
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Source: Global Competitiveness Report 2003, forthcoming
## U.S. Patenting by Organizations
### Ireland

<table>
<thead>
<tr>
<th>Organization</th>
<th>Patents Issued from 1996 to 2001</th>
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<tr>
<td>1  ANALOG DEVICES, INC.</td>
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<td>2  ELAN CORPORATION P.L.C.</td>
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<td>3  LOCTITE (IRELAND) LIMITED</td>
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<td>4  MOLEX INCORPORATED</td>
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<td>5  AVE CONNAUGHT</td>
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<td>6  3COM TECHNOLOGIES</td>
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<td>7  IBM CORPORATION</td>
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<td>13  DIGITAL EQUIPMENT CORPORATION</td>
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<td>18  ARTESYN TECHNOLOGIES, INC.</td>
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<td>18  COLLEGE OF THE HOLY AND UNDIVIDED TRINITY</td>
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<td>18  CARROLL PRODUCTS AND DESIGNS LIMITED</td>
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Note: Shading indicates universities, research institutions, and other government agencies
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<td>4 DIGITAL EQUIPMENT CORPORATION</td>
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<td>6 ANALOG DEVICES, INC.</td>
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<td>11 BOSTON SCIENTIFIC CORPORATION</td>
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<td>107</td>
</tr>
<tr>
<td>16 RAYTHEON COMPANY</td>
<td>101</td>
</tr>
<tr>
<td>17 GENERAL ELECTRIC COMPANY</td>
<td>99</td>
</tr>
<tr>
<td>18 HEWLETT-PACKARD COMPANY</td>
<td>96</td>
</tr>
<tr>
<td>19 CHILDREN'S MEDICAL CENTER CORPORATION</td>
<td>93</td>
</tr>
<tr>
<td>20 QUANTUM CORP. (CA)</td>
<td>93</td>
</tr>
<tr>
<td>21 COGNEX CORPORATION</td>
<td>90</td>
</tr>
<tr>
<td>22 DANA-FARBER CANCER INSTITUTE</td>
<td>90</td>
</tr>
<tr>
<td>23 JOHNSON &amp; JOHNSON PROFESSIONAL INC.</td>
<td>90</td>
</tr>
<tr>
<td>24 BOSTON UNIVERSITY</td>
<td>84</td>
</tr>
<tr>
<td>25 SEPRACOR INC.</td>
<td>84</td>
</tr>
</tbody>
</table>

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

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

Government R&D Spending
Selected European Countries

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

Source: EU Scoreboard
GCR Ireland 2003 09-30-03 CK.ppt
Private R&D Spending
Selected European Countries

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

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

Source: EU Scoreboard 2002
Demand Conditions

Ireland’s Relative Position

Competitive Advantages Relative to GDP per Capita

- Government Procurement of Advanced Technology Products: 16

Competitive Disadvantages Relative to GDP per Capita

- Stringency of Environmental Regulations: 36
- Buyer Sophistication: 25
- Consumer Adoption of Latest Products: 25

Country Ranking, Arrows indicate a change of 5 or more ranks since 2000.

Note: Rank by countries; overall Ireland ranks 9 on GDP per Capita 2002.
Source: Global Competitiveness Report 2003
Recent Policy Initiatives

• Five-fold increase of industry-related R&D spending by the government included in the National Development Plan, 2000 – 2006

• Reorganization of science-related policy institutions
  – Science Foundation Ireland

Issues

• Lack of public understanding for the need to upgrade innovative capacity

• Focus and coherence of ramp-up in R&D spending

Competitiveness Agenda for Ireland

- Move from low cost to superior productivity
  - Address weaknesses in the business environment
  - Strengthen innovative capacity

- Develop robust clusters

- Redefine the institutional structure for economic development

- Decentralize economic policy-making
Related and Supporting Industries
Ireland’s Relative Position

Competitive Advantages Relative to GDP per Capita

- State of Cluster Development: 7
- Extent of Product and Process Collaboration: 12

Competitive Disadvantages Relative to GDP per Capita

- Local Supplier Quantity: 36
- Local Availability of Components and Parts: 34
- Local Availability of Process Machinery: 31

Note: Rank by countries; overall Ireland ranks 9 on GDP per Capita 2002
Source: Global Competitiveness Report 2003
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

The Australian Wine Cluster
Trade Performance

Australian Wine Exports in million US Dollars


Source: UN Trade Statistics
The Australian Wine Cluster

History

1930
First oenology course at Roseworthy Agricultural College

1955
Australian Wine Research Institute founded

1965
Australian Wine Bureau established

1970
Winemaking school at Charles Sturt University founded

1980
Australian Wine and Brandy Corporation established

1990
Winemaker’s Federation of Australia established

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

1950s
Import of European winery technology

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

1970s
Continued inflow of foreign capital and management

1980s
Creation of large number of new wineries

1990s
Surge in exports and international acquisitions

# The Australian Wine Cluster

Recently founded Institutions for Collaboration

<table>
<thead>
<tr>
<th>Institution</th>
<th>Established</th>
<th>Focus</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winemakers’ Federation of Australia</td>
<td>1990</td>
<td>Public policy representation of companies in the wine cluster</td>
<td>Member companies</td>
</tr>
<tr>
<td>Cooperative Centre for Viticulture</td>
<td>1991</td>
<td>Coordination of research and education policy in viticulture</td>
<td>Other cluster organizations</td>
</tr>
<tr>
<td>Australian Wine Export Council</td>
<td>1992</td>
<td>Wine export promotion through international offices in London and San Francisco</td>
<td>Government; cluster organizations</td>
</tr>
<tr>
<td>Grape and Wine R&amp;D Corporation</td>
<td>1991</td>
<td>Funding of research and development activities</td>
<td>Government; statutory levy</td>
</tr>
<tr>
<td>Wine Industry Information Service</td>
<td>1998</td>
<td>Information collection, organization, and dissemination</td>
<td>Cluster organizations</td>
</tr>
<tr>
<td>Wine Industry National Education and Training Council</td>
<td>1995</td>
<td>Coordination, integration, and standard maintenance for vocational training and education</td>
<td>Government; other cluster organizations</td>
</tr>
</tbody>
</table>

Issues in the Irish Policy Debate
Cluster Development

• Clusters have so far played a **limited role** in Irish economic development efforts
  – The national economy perceived as too small to support fully-developed clusters
  – Clusters seen as focusing resources on some parts of the economy while neglecting others

• Clusters are an **important tool** to address key competitiveness challenges that Ireland cannot afford to neglect
  – All clusters are good. Ireland must develop **all** its existing and emerging clusters, not choose among them
  – Clusters enable higher levels of **innovation** based on spill-overs and increased interaction
  – Clusters provide a fertile ground for **Irish-based companies** to evolve and grow
  – Clusters provide a vehicle for redefining the **roles** of the public and the private sector in economic development
Competitiveness Agenda for Ireland

- Move from low cost to superior productivity
  - Address weaknesses in the business environment
  - Strengthen innovative capacity

- Develop robust clusters

- **Redefine the institutional structure for economic development**

- Decentralize economic policy-making
Roles in Economic Development

Government
- Improve the macroeconomic, political, legal, and social context
- Upgrade the general business environment
- Facilitate cluster formation and upgrading
- Lead a collaborative process of economic change

Firms
- Take an active role in upgrading the local infrastructure
- Nurture local suppliers and attract new supplier investments
- Work with government and universities in efforts to upgrade the business environment
- Focus corporate philanthropy on enhancing the local business environment

Trade Associations
- Negotiate with government
- Provide services such as information collection and dissemination, and training
- Market the region and the cluster
- Develop platforms for joint research and procurement

Universities
- Joint generation and transfer of knowledge
- Engage in workforce development
- Facilitate competitiveness initiatives
Issues in Ireland

• Economic development is strongly government-led

• Limited private sector engagement

• Weak Institutions for Collaboration

• Weak relationship between universities and private sector only gradually improving

Competitiveness Agenda for Ireland

- Move from low cost to superior productivity
  - Address weaknesses in the business environment
  - Strengthen innovative capacity

- Develop robust clusters

- Redefine the institutional structure for economic development

  - Decentralize economic policy-making
Regional Economic Performance

Gross Value Added per Capita, Euro, 1999

Dublin
South-West
Mid-West
Mid-East
West
Border
Midlands
South-East

Ireland: Euro 21'171

Ireland: 12.6%

Source: Forfas/National Competitiveness Council: Annual Competitiveness Report 2002
Issues in the Irish Policy Debate  
Decentralization of Economic Development Efforts

- Significant variation in the economic performance of Irish regions suggests large regional differences in competitiveness
- Yet Ireland ranks 75th out of 80 countries in the Global Competitiveness Report on the decentralization of economic policy making
  - Recent efforts to develop regional institutions have been a requirement to receive EU funding, not a sign that Irish thinking is changing
- Shifting decision powers to the regional and local level are of increasing importance for the Irish economy
  - Address the unique challenges and opportunities of different regions
  - Foster cluster development
  - Encourage the acceptance of responsibility at the local level
Ireland is Entering a New Economic Era

• The transition to an innovation economy is complex but well within reach for Ireland

• Ireland success in the past bodes well for the country’s ability to meet the new challenges

• The country has identified many of the key steps that need to be taken; now it is a matter of persistence and implementation

• Competitiveness is a marathon, not a sprint!

• It is very difficult to achieve economic change without a crisis

• A consensus about the need for a new strategy is not yet in place