

# Australian Competitiveness

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

*Sydney, Australia*  
IIR Leading Minds Conference  
1 August, 2002

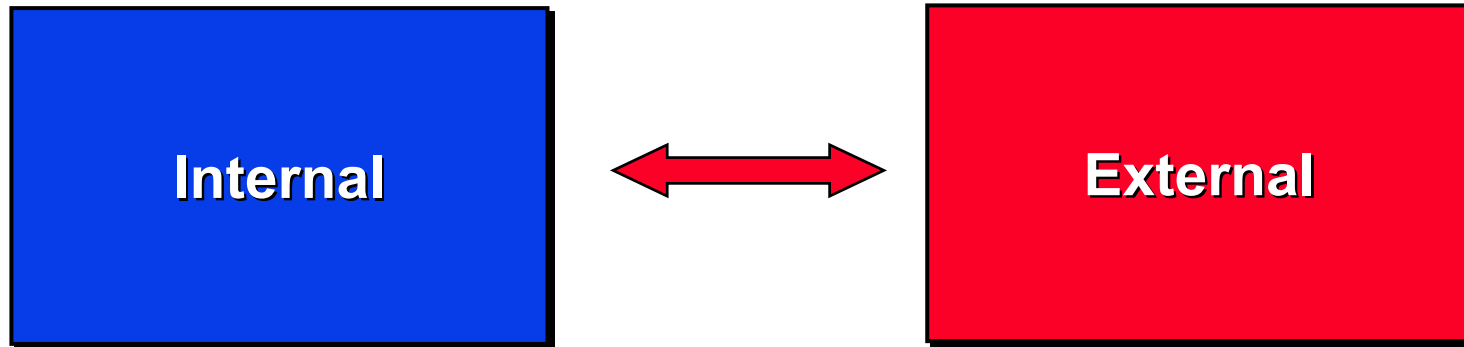
---

This presentation draws on ideas from Professor Porter's articles and books, in particular, The Competitive Advantage of Nations (The Free Press, 1990), "The Microeconomic Foundations of Economic Development," in The Global Competitiveness Report 2001, (World Economic Forum, 2001), "Clusters and the New Competitive Agenda for Companies and Governments" in On Competition (Harvard Business School Press, 1998), and the *Clusters of Innovation Initiative* ([www.compete.org](http://www.compete.org)), a joint effort of the Council on Competitiveness, Monitor Group, and Professor Porter. 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.

Additional information may be found at the website of the Institute for Strategy and Competitiveness, [www.isc.hbs.edu](http://www.isc.hbs.edu)

---

# Sources of Firm Success



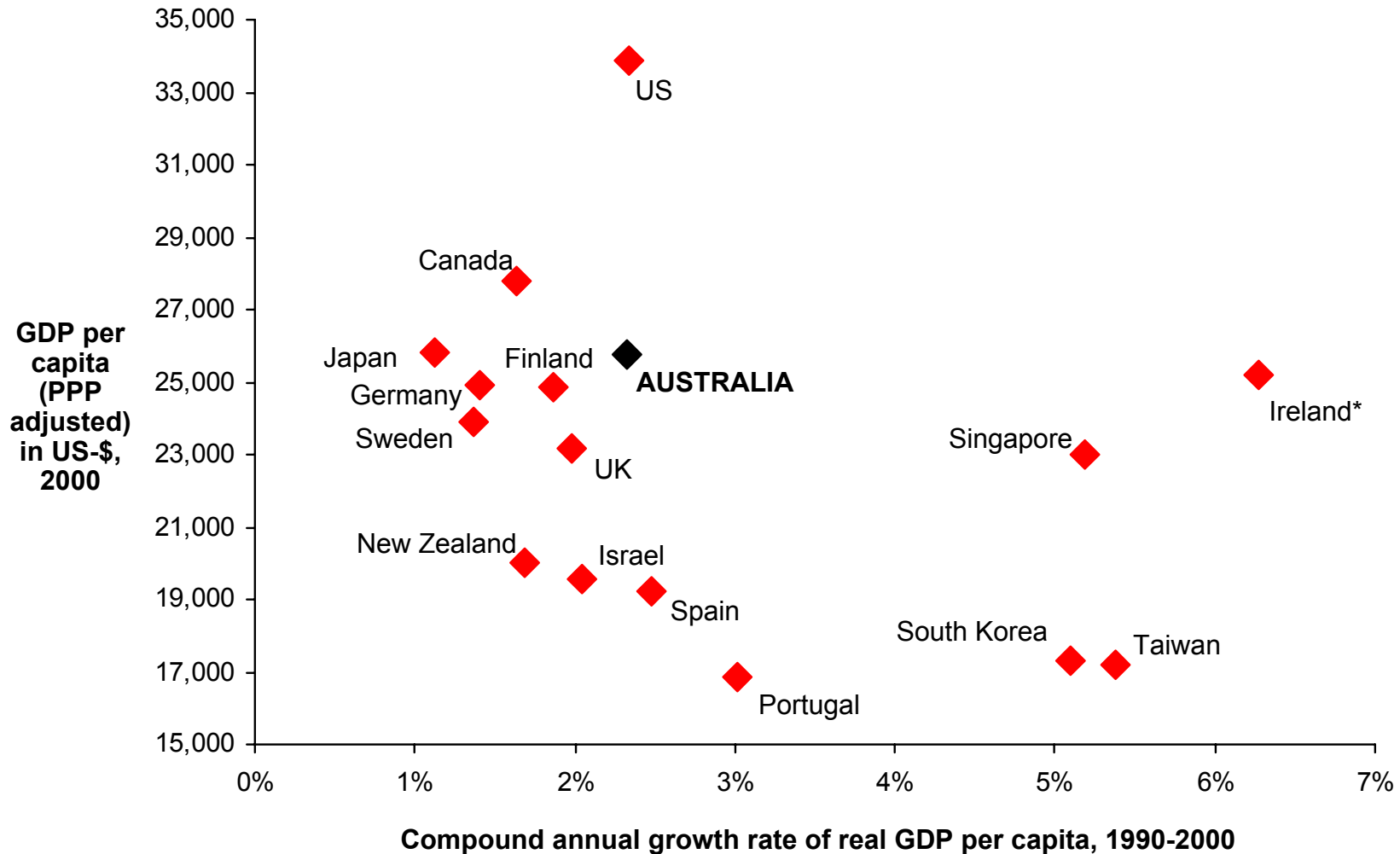
- Competitive advantage resides solely **inside** a company or in its industry
- Competitive success depends primarily on **company choices**

- Competitive advantage resides partly in the **locations** at which a company's business units are based
- **Cluster participation** is an important contributor to company success

# Australia 2002

- Australia's strong economic performance over the last decade was due to fundamental economic reforms
- The competitiveness of Australian companies is still being constrained by some elements of the business environment
- Australian companies can and should play a more forceful role in enhancing the nation's business environment

# Australian Economic 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: WTO

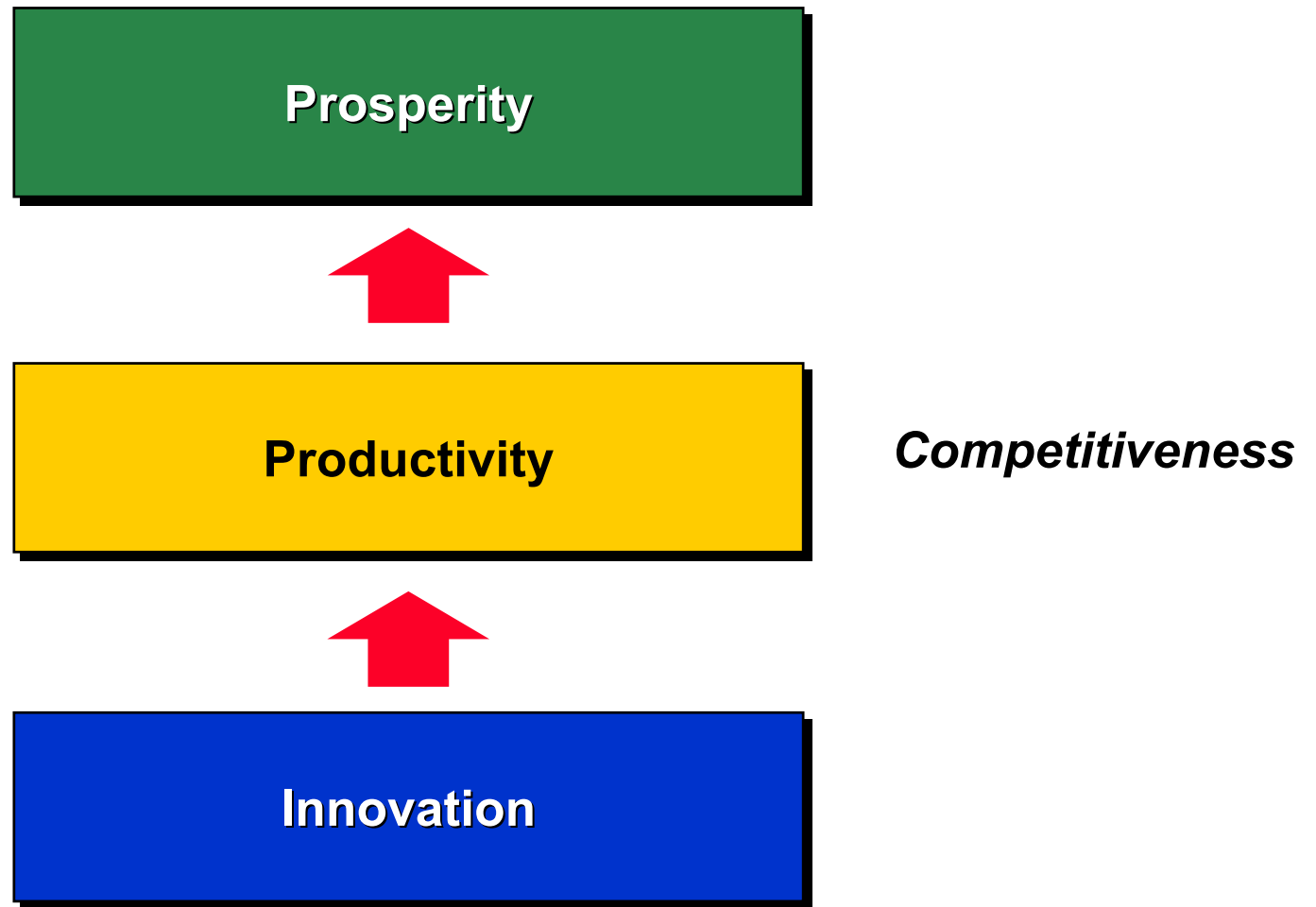
# Sources of Prosperity

- A nation's or region's standard of living (wealth) is determined by the **productivity** with which it uses its human, capital, and natural resources. The appropriate definition of competitiveness is productivity.
  - 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 or region competes in that matters for prosperity, but **how** firms compete in those industries
  - Productivity in a nation or region 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 or regions 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 and Prosperity



- There are **no low-tech industries**, only low-tech firms
- Innovation is **more than just scientific discovery**

# Determinants of Productivity and Productivity Growth

Macroeconomic, Political, Legal, and Social  
Context for Development

## Microeconomic Foundations of Development

Sophistication  
of Company  
Operations and  
Strategy

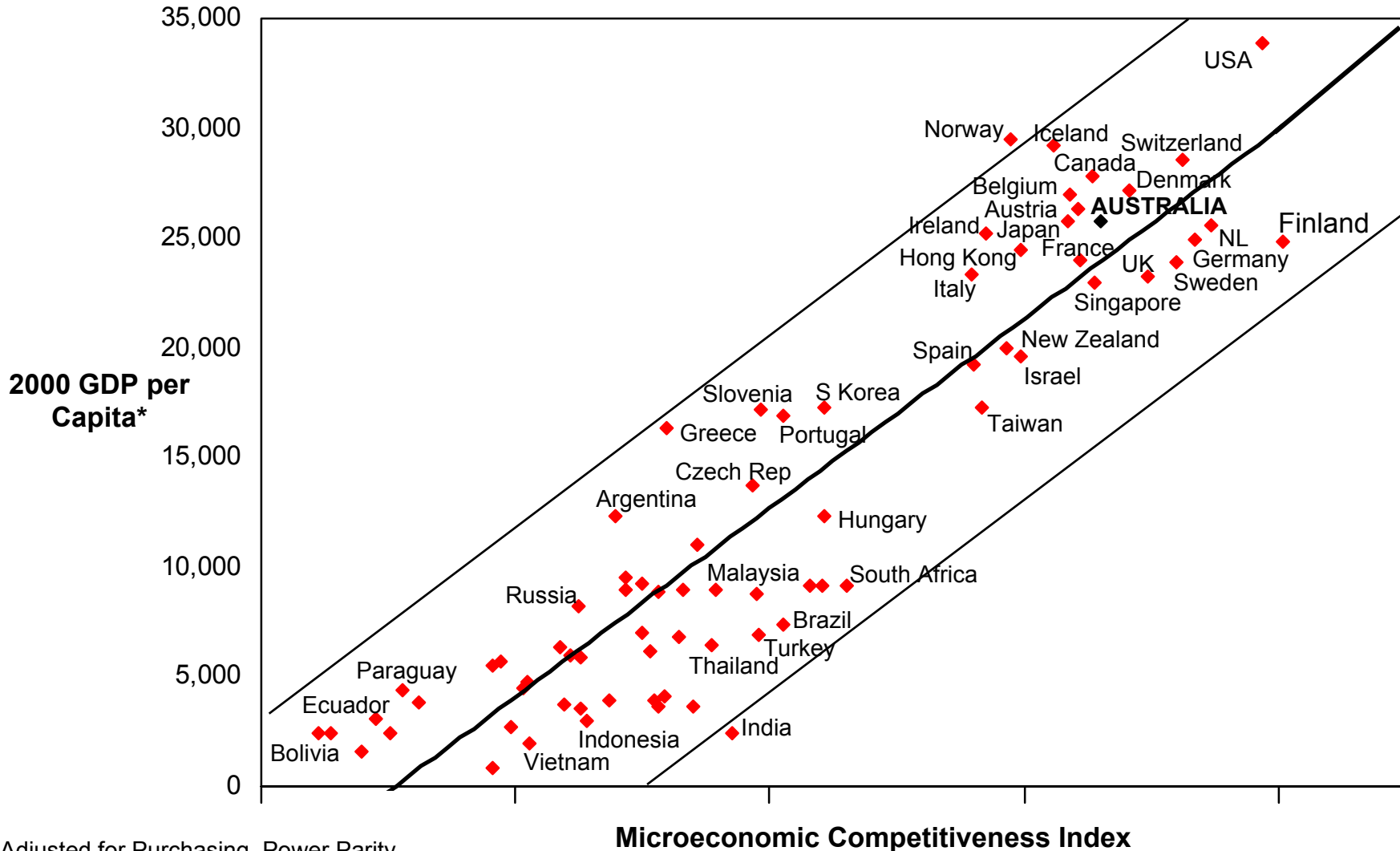


Quality of the  
Microeconomic  
Business  
Environment

- 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 competition**

# Global Competitiveness Report 2001

## The Relationship Between Microeconomic Competitiveness and GDP Per Capita, 2000 Data

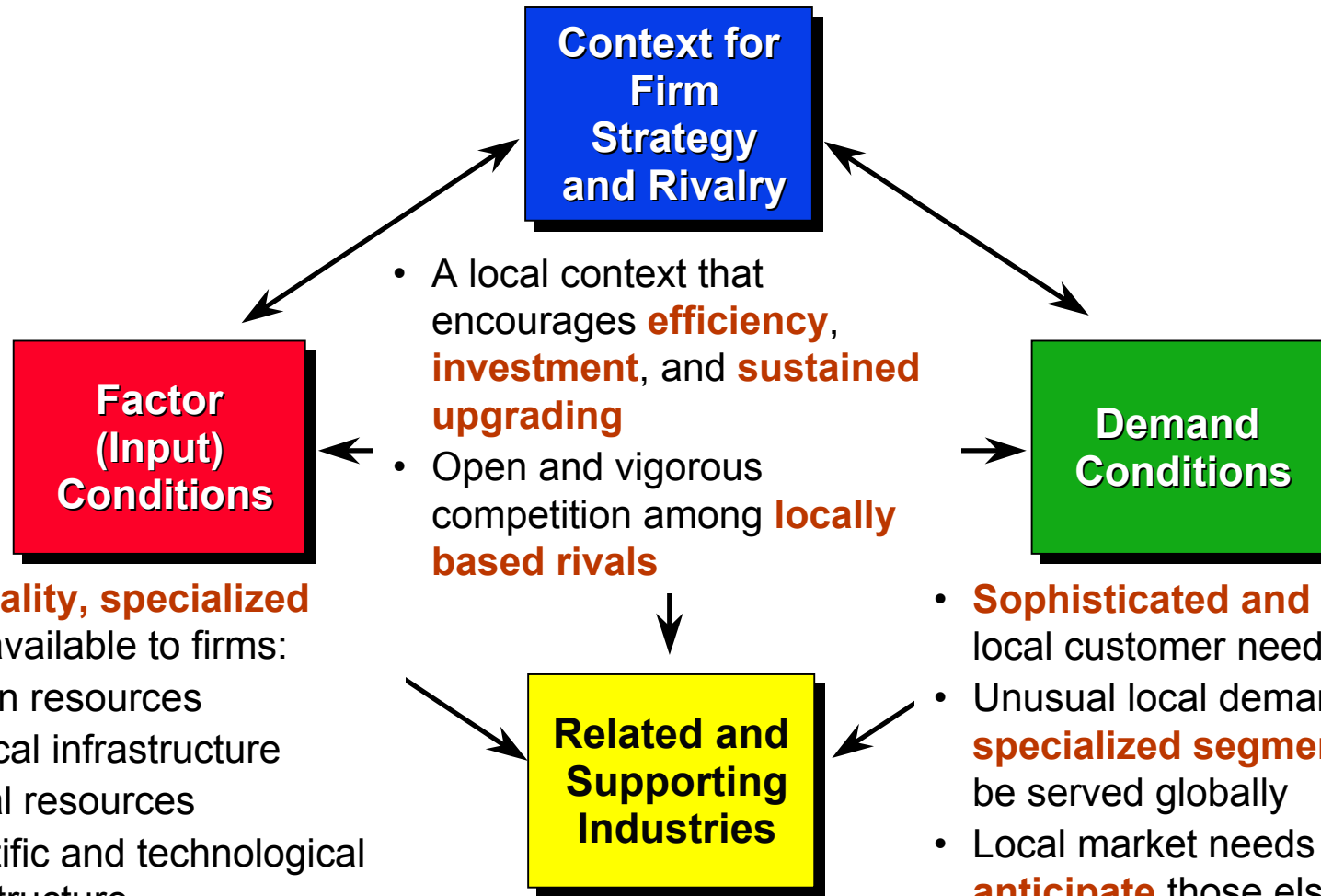


\* Adjusted for Purchasing Power Parity

Source: Porter, Michael E. "The Current Competitiveness Index: Measuring the Microeconomic Foundations of Prosperity." *The Global Competitiveness Report 2001*, Oxford University Press



# Productivity and the Microeconomic Business Environment



**Context for Firm Strategy and Rivalry**

- A local context that encourages **efficiency**, **investment**, and **sustained upgrading**
- Open and vigorous competition among **locally based rivals**

**Factor (Input) Conditions**

- **High quality, specialized inputs** available to firms:
  - human resources
  - physical infrastructure
  - capital resources
  - scientific and technological infrastructure
  - administrative infrastructure
  - information infrastructure
  - natural resources

**Demand Conditions**

- **Sophisticated and demanding** local customer needs
- Unusual local demand in **specialized segments** that can be served globally
- Local market needs that **anticipate** those elsewhere

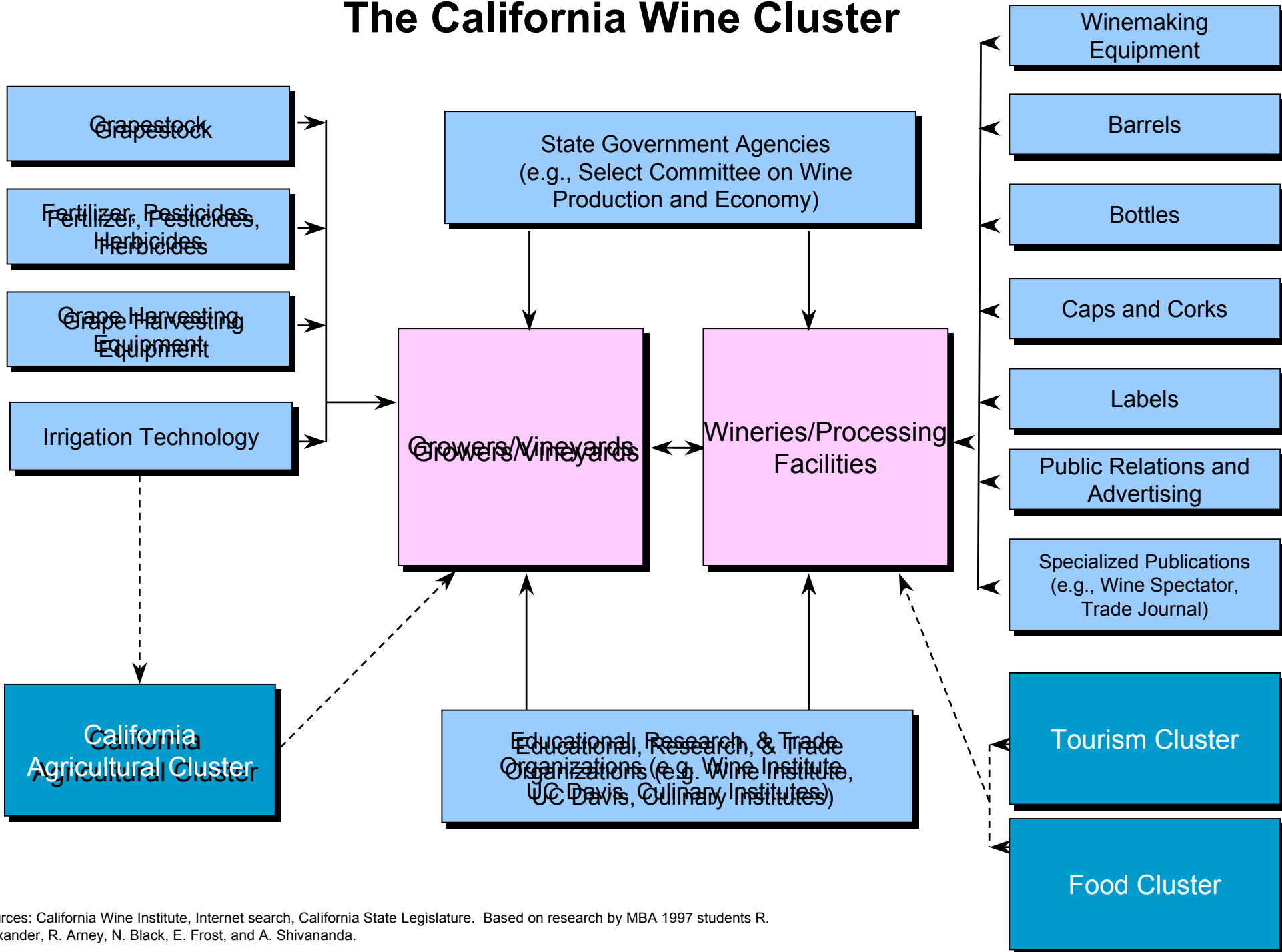
**Related and Supporting Industries**

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



- Economic development is a process of **successive upgrading**, in which the business environment evolves to support and encourage increasingly sophisticated and productive **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.

# Institutions for Collaboration

## Selected Institutions for Collaboration in San Diego

### General

#### ***Private Sector***

- San Diego Chamber of Commerce
- San Diego MIT Enterprise Forum
- Corporate Director's Forum
- San Diego Dialogue
- Service Corps of Retired Executives, San Diego

#### ***Joint Private / Public***

- San Diego Regional Economic Development Corporation
- Center for Applied Competitive Technologies
- San Diego World Trade Center

#### ***Public Sector***

- San Diego Regional Technology Alliance
- San Diego Science and Technology Council
- Office of Trade and Business Development

#### ***Informal Networks***

- UCSD Alumni

### Cluster-Specific

#### ***Private Sector***

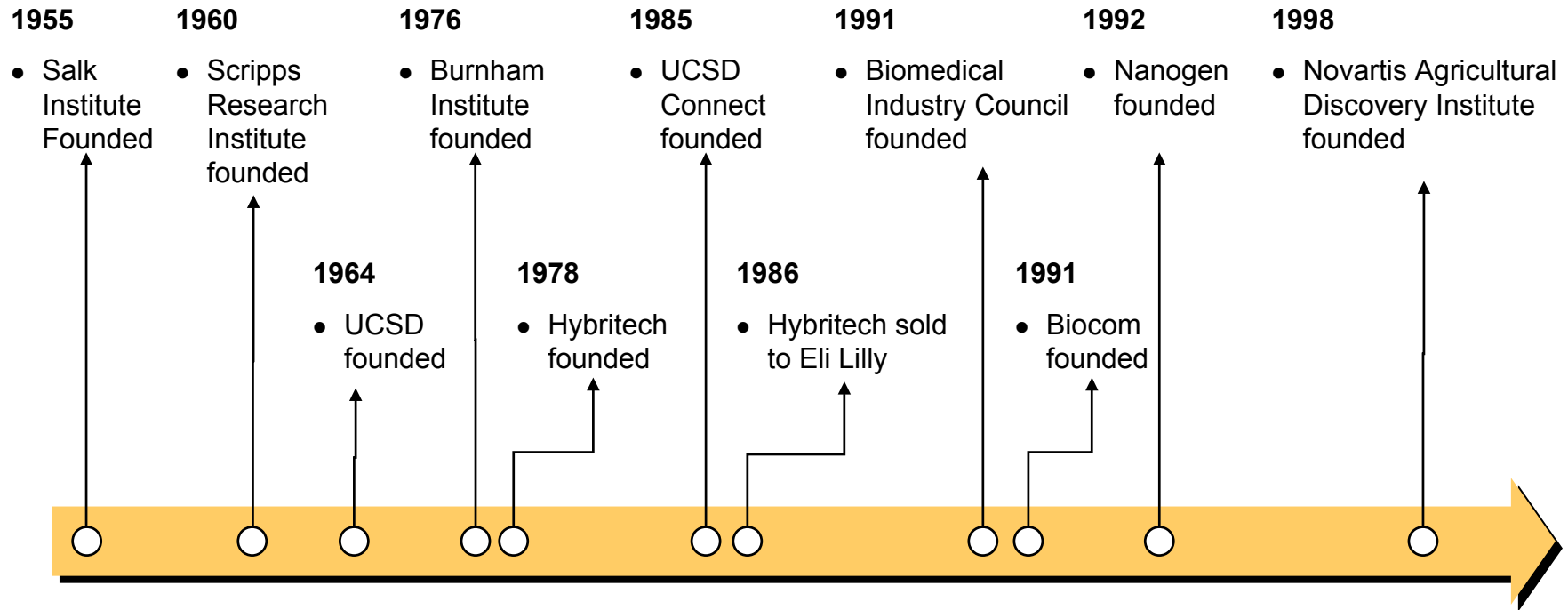
- Linkabit Alumni
- Hybritech Alumni
- Scripps Research Institute Alumni

#### ***Joint Private / Public***

- BIOCOMM
- UCSD Connect

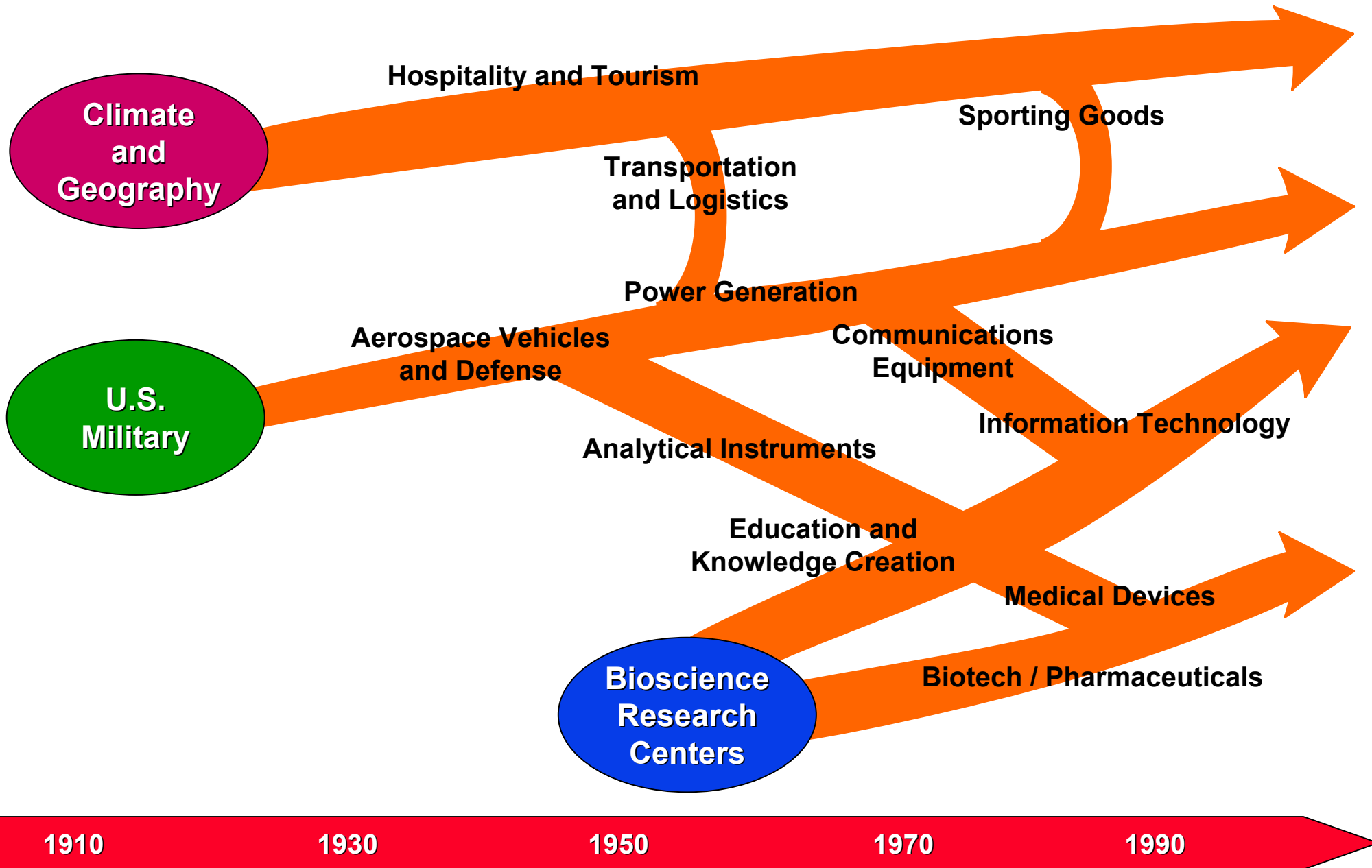
# The Process of Cluster Development

## History of the San Diego Biotech / Pharma Cluster



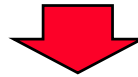
# The Evolution of Regional Economies

## San Diego

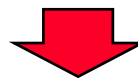


# Role of the Private Sector in Economic Development

- 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**” enhances competitive advantages



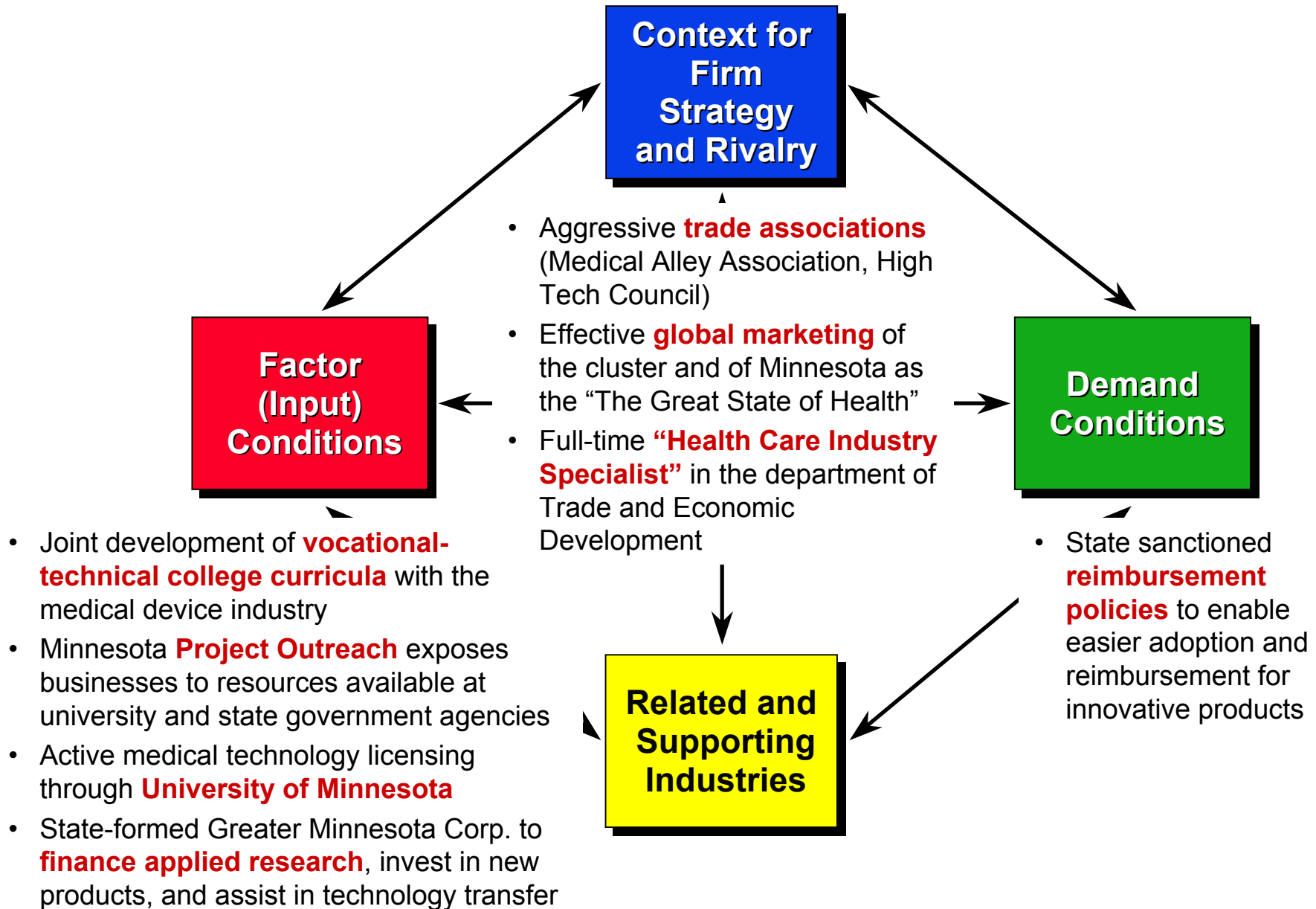
- Take an **active role** in upgrading the local infrastructure
- Nurture **local suppliers** and attract new supplier investments
- Work closely with local **educational and research institutions**
- Provide government with **information** and substantive input on regulatory issues and constraints to cluster development



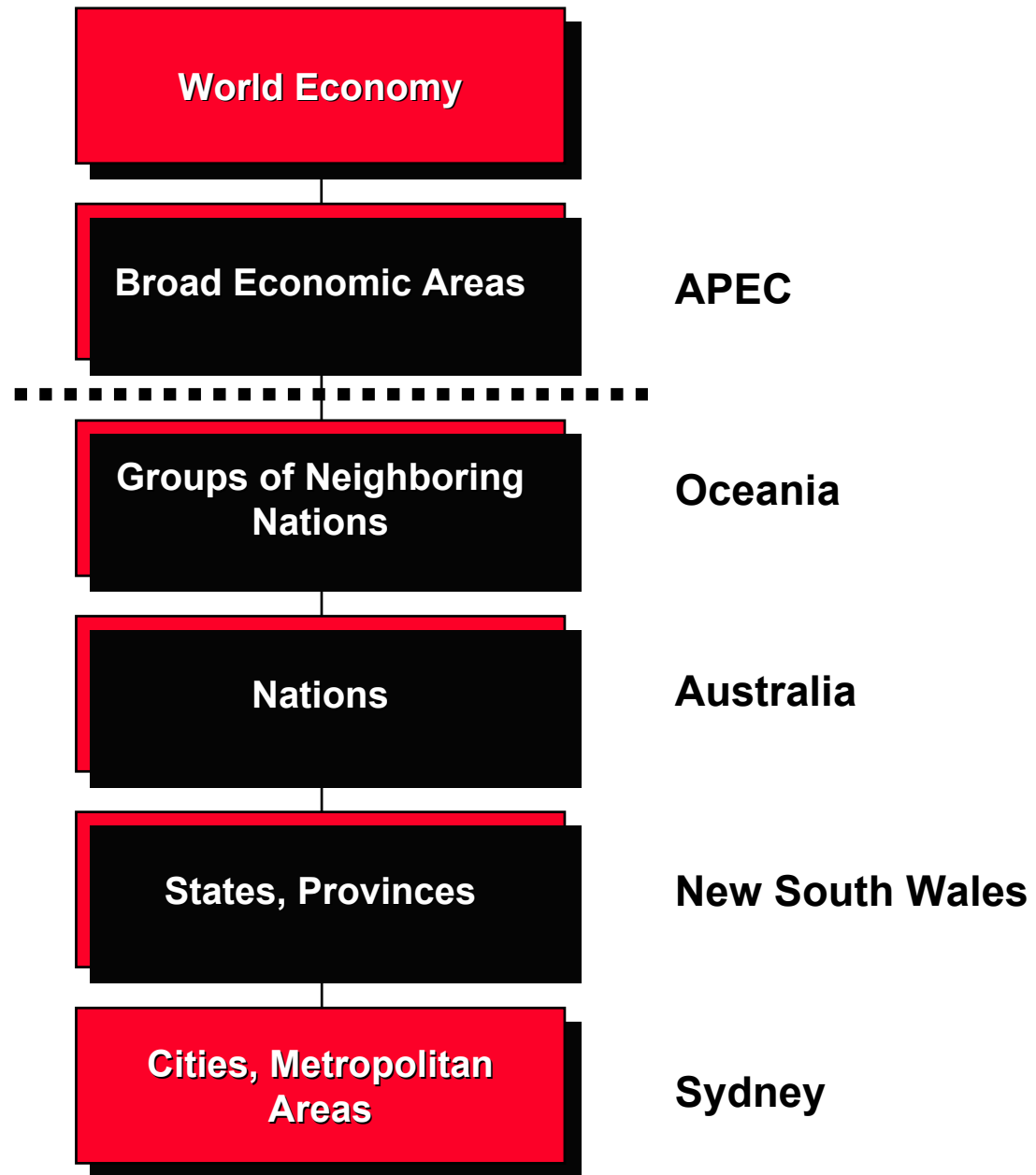
- An important role for **trade associations**
  - Influence and cost sharing

# Public / Private Cooperation in Cluster Upgrading

## Minnesota's Medical Device Cluster



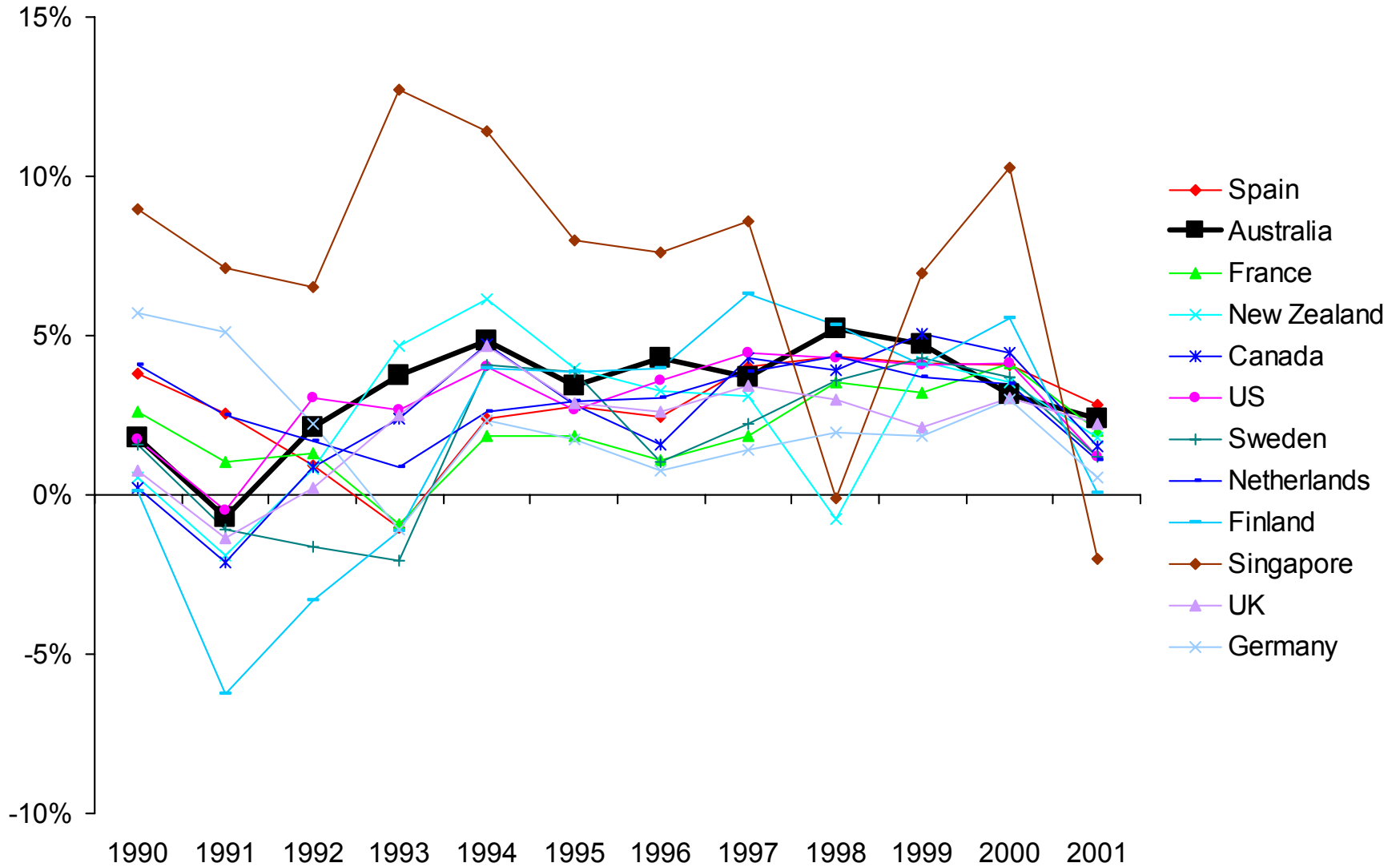
# Geographic Levels and Competitiveness





# Comparative Economic Performance

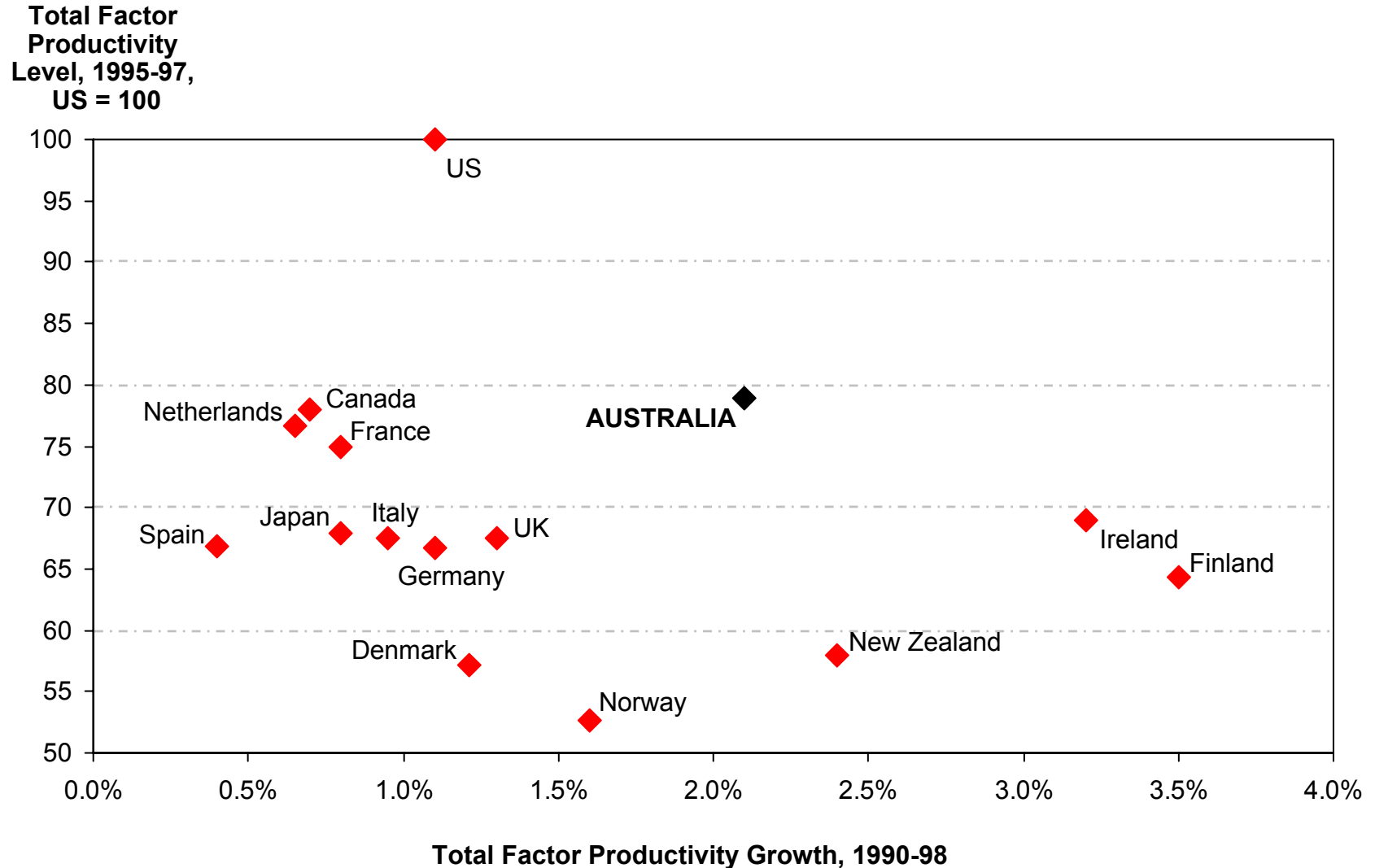
## Real GDP Growth Rates



Source: EIU (2001), OECD (2002), Singapore Statistics (2002)

# Total Factor Productivity Performance

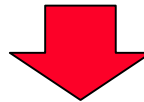
## Selected OECD Countries



# Australia's Achievements

## 1990 - 2002

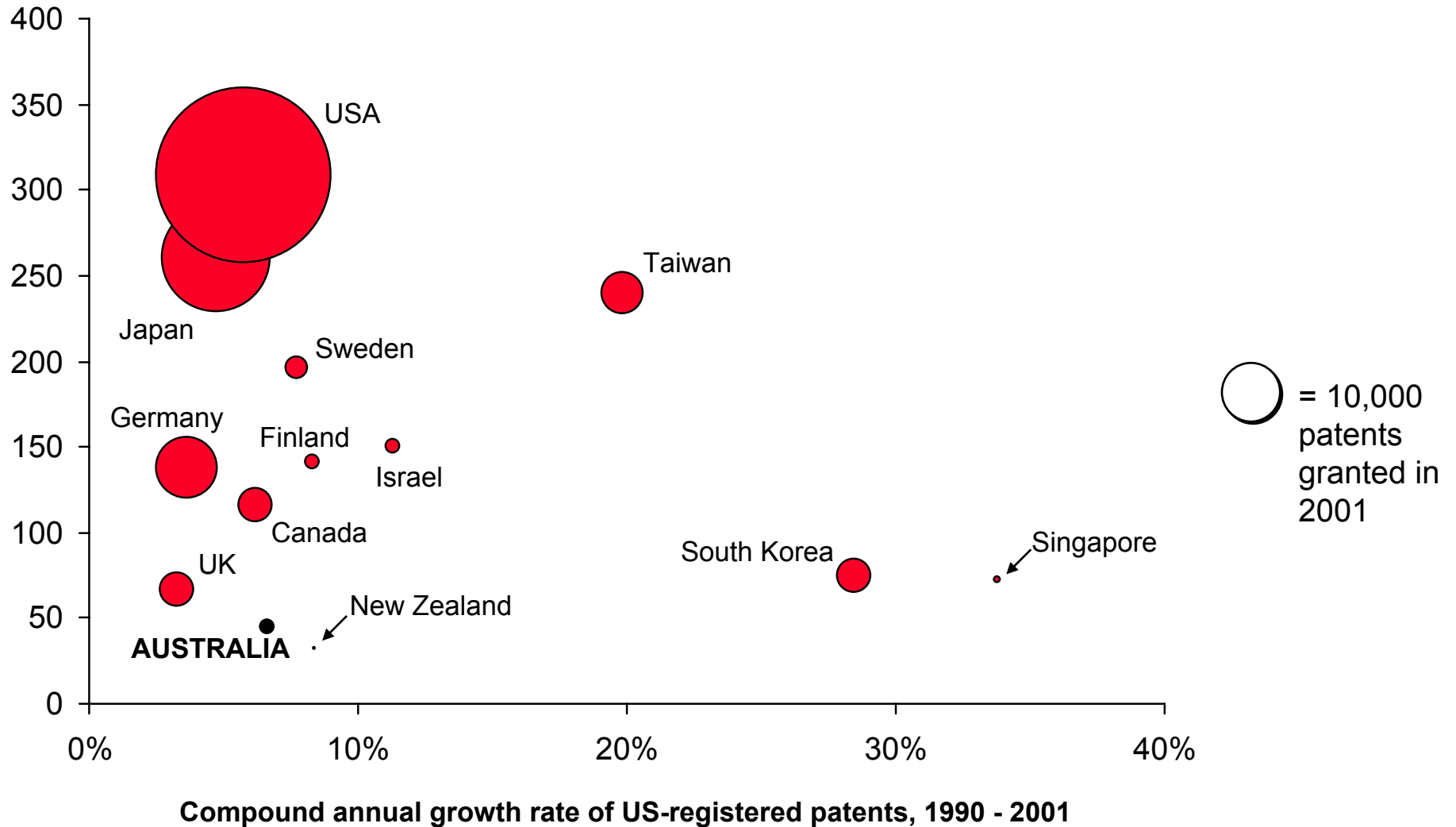
- **GDP per capita growth** has been remarkably resilient in the face of the Asian crisis and the current global economic weakness
- **Productivity** has increased rapidly, especially total factor productivity
- Economic reforms have begun to fundamentally transform the quality of the **Australian business environment**
  - Sound macroeconomic policies
  - Modernization of the tax system
  - Redesigned social policies to encourage participation in the economy
  - Deregulation of product and labor markets
  - Market opening for telecommunications, utilities, and the provision of public services
  - Strengthening of competition policy
  - Creation of institutions to monitor competitive upgrading, e.g. Productivity Commission



- The positive effects of the past economic reforms have not yet been fully felt and **will continue to benefit** the performance of the Australian economy in coming years

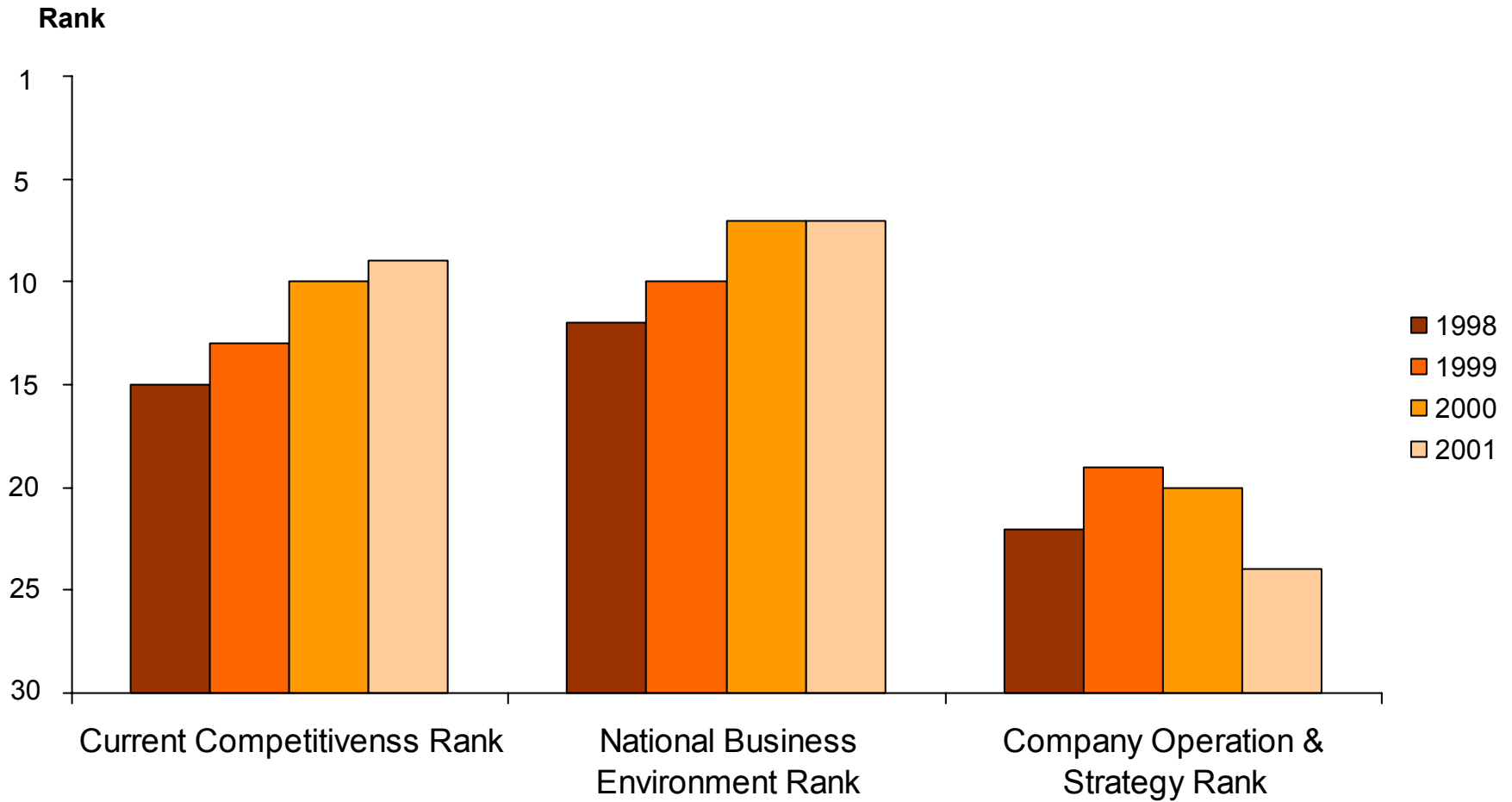
# International Patenting Output

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



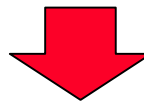
# Current Competitiveness Index

## Australia's Position over Time



# Australia's Challenges

- A number of **corporate failures** and **company relocations** have shaken confidence in Australia's corporate basis
- The **innovation** performance of Australia is weak compared to international standards
- Australia has relatively few **clusters** that are well developed
- Government is under pressure to “do something” but there is no clear **vision** for the next stage in economic development after market opening and deregulation



- These challenges are **connected**; a concerted strategy is needed to address them

# Australia's Economic Agenda 2002

- **Continue upgrading the microeconomic business environment**
- Strengthen innovative capacity
- Mount a broad-based program of cluster development
- Upgrade company strategies
- Pursue stronger economic coordination with neighboring countries
- Articulate a new national economic vision

# Factor (Input) Conditions

## Australia's Relative Position

### Competitive Advantages Relative to GDP per Capita

	Country Ranking
Availability and Cost of Cellular Phones	1
Judicial Independence	1
Quality of Management Schools	1
Road Infrastructure Quality	2
Speed and Cost of Internet Access	2
Venture Capital Availability	2
Administrative Burden for Start-Ups	3
Police Protection of Businesses	3
Adequacy of Public Sector Legal Recourse	4

### Competitive Disadvantages Relative to GDP per Capita

	Country Ranking
Local Equity Market Access	36
Telephone/Fax Infrastructure Quality	25
Availability of Scientists and Engineers	24
Patents per Capita (2000)	20
Railroad Infrastructure Quality	20
Port Infrastructure Quality	15
Quality of Math and Science Education	15
University/Industry Research Collaboration	15
Ease of Access to Loans	14
Overall Infrastructure Quality	13
Quality of Public Schools	11
Air Transport Infrastructure Quality	10

Note: Rank by countries; overall Australia ranks 9th (7th on Quality of the National Business Environment; 11th on GDP per Capita)

Source: Global Competitiveness Report 2001



# Context for Firm Strategy and Rivalry

## Australia's Relative Position

### Competitive Advantages Relative to GDP per Capita

	Country Ranking
Effectiveness of Anti-Trust Policy	2
Efficacy of Corporate Boards	2
Hidden Trade Barrier Liberalization	3
Extent of Locally Based Competitors	4
Extent of Distortive Government Subsidies	5

### Competitive Disadvantages Relative to GDP per Capita

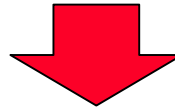
	Country Ranking
Intensity of Local Competition	58
Cooperation in Labor-Employer Relations	51
Favoritism in Decisions of Government Officials	16
Decentralization of Corporate Activity	10
Intellectual Property Protection	10

Note: Rank by countries; overall Australia ranks 9th (7th on Quality of the National Business Environment; 11th on GDP per Capita)

Source: Global Competitiveness Report 2001

# The Importance of Local Competition

- A decade of research and findings for the *Global Competitiveness Report* indicate the critical role of **local competition** and **effective anti-trust policy** for prosperity and prosperity growth
- Modern antitrust policy must recognize the critical importance of **productivity and innovation**, and shift the basis for evaluating mergers and other company behavior towards these benchmarks



- There is **no trade-off** between anti-trust policy and competitiveness policy; they reinforce each other

# **Demand Conditions**

## **Australia's Relative Position**

### **Competitive Advantages Relative to GDP per Capita**

	Country Ranking
Consumer Adoption of Latest Products	2
Presence of Demanding Regulatory Standards	8

### **Competitive Disadvantages Relative to GDP per Capita**

	Country Ranking
Government Procurement of Advanced Technology Products	21
Buyer Sophistication	18
Stringency of Environmental Regulations	15
Laws Relating to Information Technology	13

Note: Rank by countries; overall Australia ranks 9th (7th on Quality of the National Business Environment; 11th on GDP per Capita)

Source: Global Competitiveness Report 2001

# Environmental Regulatory Regime Index

## Score Relative To GDP

	Residual
1 Finland	1.165
2 Sweden	0.725
3 Netherlands	0.541
4 France	0.404
5 Germany	0.377
6 Austria	0.368
7 United Kingdom	0.202
8 Switzerland	0.154
9 Denmark	0.037
<hr/>	
10 Canada	-0.112
<b>11 AUSTRALIA</b>	<b>-0.138</b>
12 Japan	-0.168
13 Belgium	-0.173
14 Iceland	-0.184
15 Italy	-0.495
16 Norway	-0.523
17 Ireland	-0.623
18 United States	-0.792

Note: High-income country group

Source: Daniel Esty and Michael E. Porter, *Ranking National Environmental Regulation and Performance*, Global Competitiveness Report 2001

# Environmental Regulation and Competitiveness

- Competing based on weak environmental standards **perpetuates low incomes**
- Corporate pollution is a sign of **inefficient and unproductive use** of resources

## Firm

- Inefficient extraction of resources
- Incomplete material utilization
- Unnecessary waste products
- Unnecessary energy use
- Unproductive land use

## Customer

- Usable materials in products that are discarded
- Products that use energy inefficiently
- Discarded or unnecessary packaging

- The need to control or treat pollution causes companies to perform activities that add cost but create **no customer value**
  - e.g., handling, storage, processing, disposal
- Pollution is a reflection of **unsophisticated technology** and **weak management**



- **Strict environmental regulation** stimulates the upgrading necessary to achieve advanced economic development

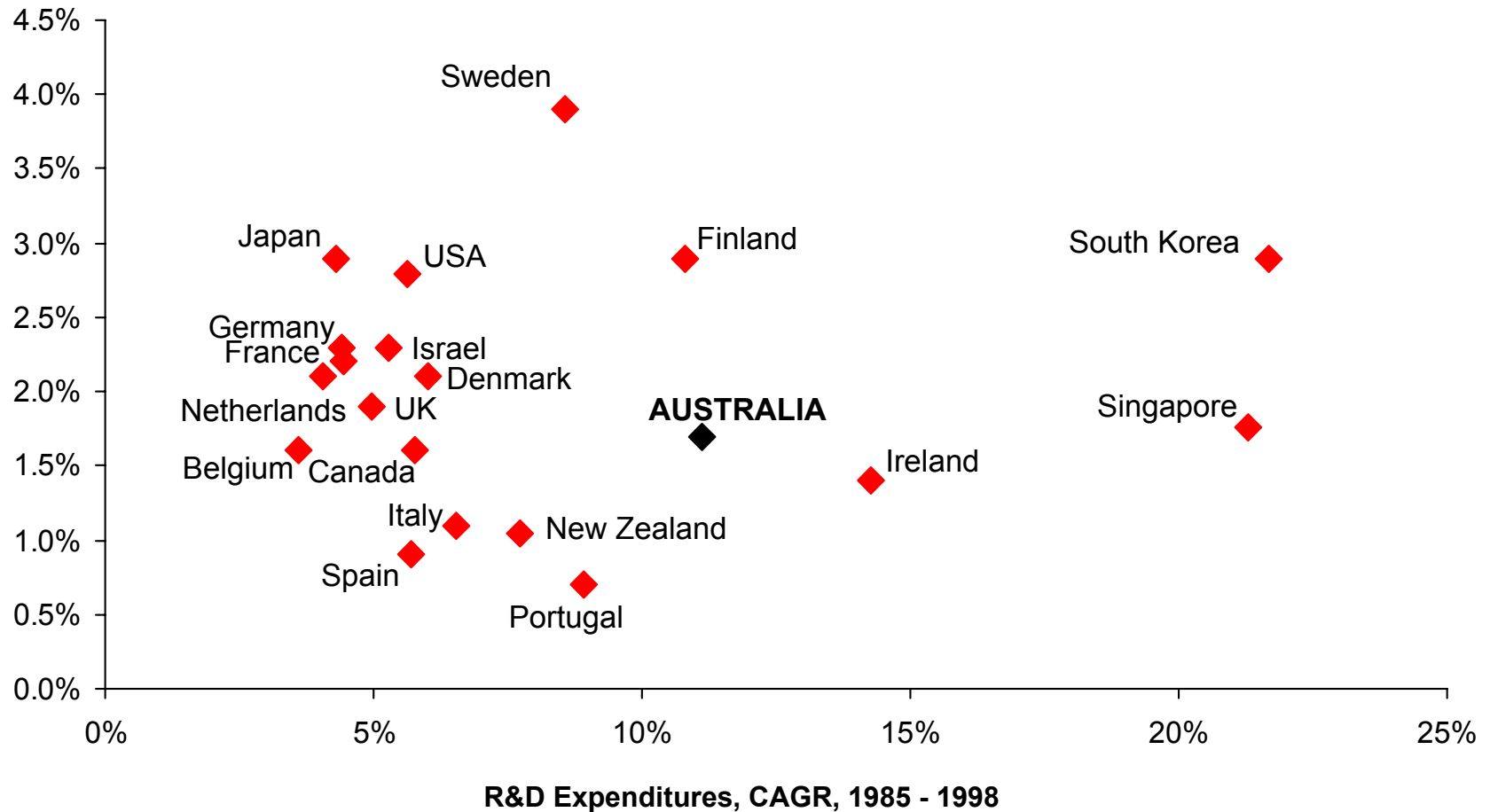
# Australia's Economic Agenda 2002

- Continue upgrading the microeconomic business environment
- **Strengthen innovative capacity**
- Mount a broad-based program of cluster development
- Upgrade company strategies
- Pursue stronger economic coordination with neighboring countries
- Articulate a new national economic vision

# Change in R&D Investments

## Compound Annual Growth Rate in R&D Expenditures, 1985-1998

R&D Spending as Share of GDP, 1998



# U.S. Patents by Australian Organization

	Organization	Patents Issued from 1997 to 2001
1	COMMONWEALTH SCIENTIFIC AND IND. RES. ORG.	153
2	SILVERBROOK RESEARCH PTY. LTD	127
3	CANON KABUSHIKI KAISHA	56
4	UNIVERSITY OF QUEENSLAND	42
5	EASTMAN KODAK COMPANY	36
5	UNIVERSITY OF MELBOURNE	36
7	ORBITAL ENGINE COMPANY (AUSTRALIA) PTY. LTD.	34
8	ISHIKAWAJIMA-HARIMA HEAVY INDUSTRIES CO., LTD.	31
9	UNIVERSITY OF SYDNEY	29
10	RESMED LIMITED, AN AUSTRALIAN COMPANY	28
11	AUSTRALIAN NATIONAL UNIVERSITY	19
12	CANON INFORMATION SYSTEMS RES. (AUS) PTY LTD.	18
12	TECHNOLOGICAL RESOURCES PTY, LTD.	18
14	AMRAD CORPORATION LIMITED	17
14	LUDWIG INSTITUTE FOR CANCER RESEARCH	17
16	BIOTECH AUSTRALIA PTY LIMITED	16
16	TELSTRA CORPORATION LIMITED	16
18	COMALCO ALUMINUM LIMITED	15
19	GENE SHEARS PTY. LIMITED	14
20	AUSTRALIAN MEMBRANE AND BIOTECH. RES. INST.	13
20	USF FILTRATION AND SEPARATIONS GROUP INC.	13
22	BHP STEEL (JLA) PTY. LTD.	12
22	SOLA INTERNATIONAL HOLDINGS LTD.	12
22	UNISEARCH LIMITED	12
25	COCHLEAR LIMITED	11
25	IMMULOGIC PHARMACEUTICAL CORP.	11
25	SRP 687 PTY LTD	11
25	WOMEN'S AND CHILDREN'S HOSPITAL	11

Note: Shading indicates universities and research institutions

Source: US Patent and Trademark Office ([www.uspto.gov](http://www.uspto.gov)). Author's analysis.



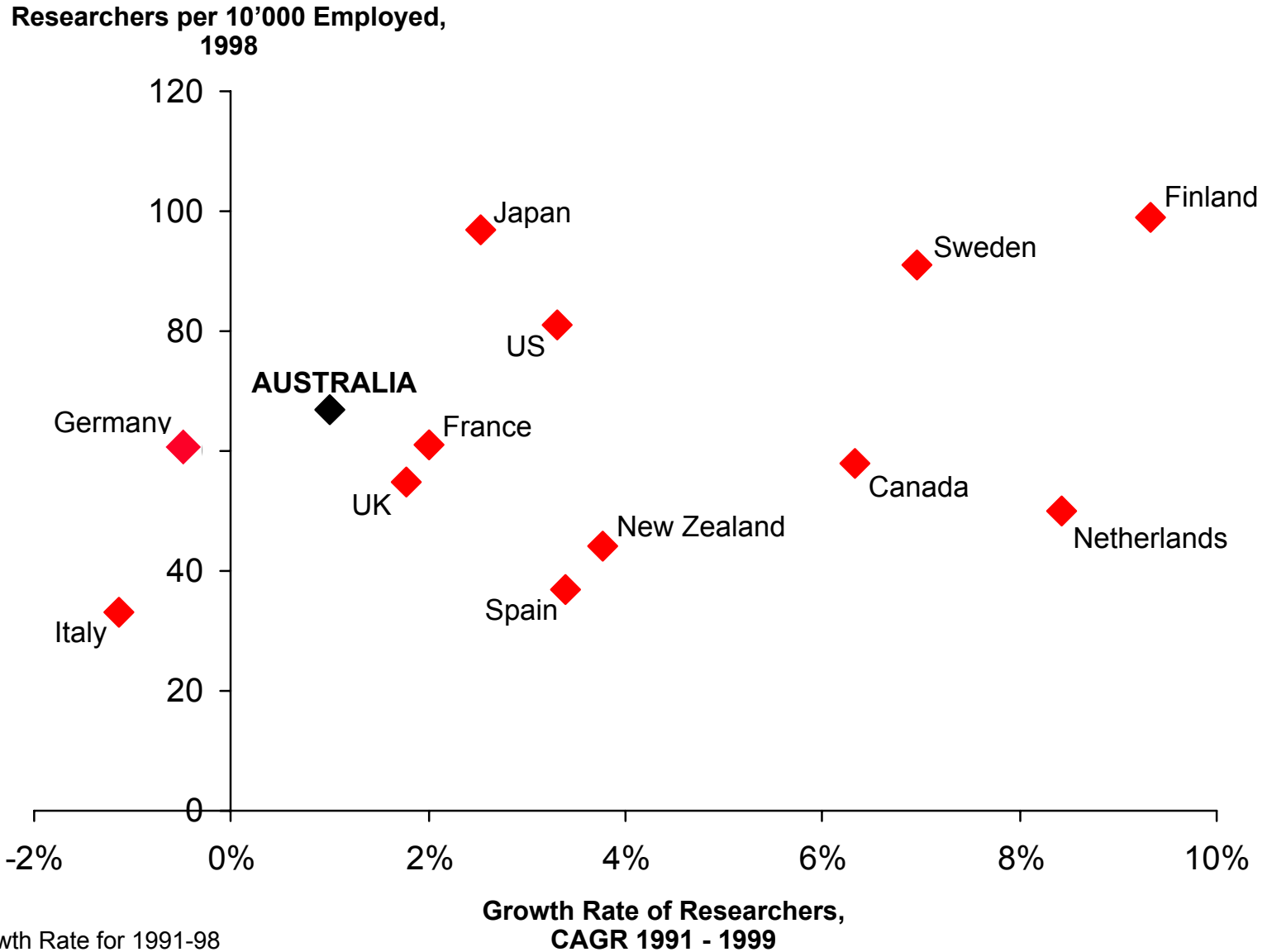
# Patents by Organization

## Commonwealth of Massachusetts, 1995–1999

	Organization	Patents Issued from 1995 to 1999
1	DIGITAL EQUIPMENT CORPORATION	382
2	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	369
3	POLAROID CORPORATION	220
4	MASSACHUSETTS GENERAL HOSPITAL	138
5	ANALOG DEVICES, INC.	136
6	HARVARD COLLEGE, PRESIDENT AND FELLOWS	105
7	GENETICS INSTITUTE, INC.	82
8	EMC CORPORATION	82
9	GENERAL ELECTRIC COMPANY	79
10	MOTOROLA, INC.	79
11	QUANTUM CORP. (CA)	79
12	BOSTON SCIENTIFIC CORPORATION	77
13	HEWLETT-PACKARD COMPANY	69
14	CHARLES STARK DRAPER LABORATORY, INC.	66
15	SAINT GOBAIN/NORTON INDUSTRIAL CERAMICS CORP.	65
16	RAYTHEON COMPANY	64
17	BOSTON UNIVERSITY	63
18	BRIGHAM AND WOMEN'S HOSPITAL	62
19	DANA-FARBER CANCER INSTITUTE, INC.	60
20	TEXAS INSTRUMENTS, INCORPORATED	59
21	GILLETTE COMPANY	57
22	SHIPLEY COMPANY INC.	52
23	UNITED STATES OF AMERICA, AIR FORCE	52
24	LISCO, INC.	50
25	HYBRIDON, INC.	48

# Scientists & Engineers

## Researchers Relative To Workforce, Selected Countries

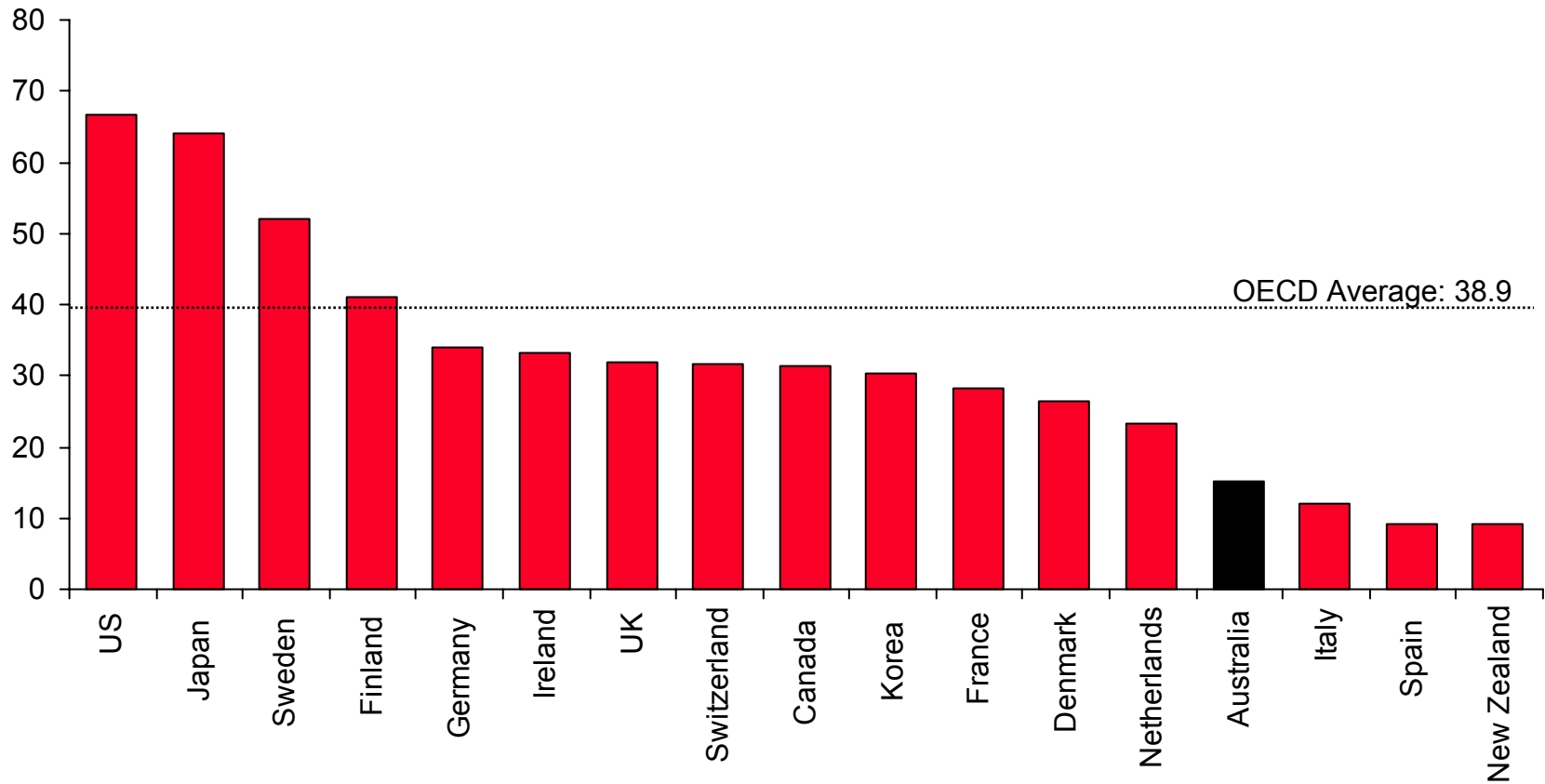


Note: Finnish Growth Rate for 1991-98

Source: OECD, 2001

# Number of Company Researchers Selected OECD Countries

Company Researchers  
per 10'000 Employed,  
1998



# Australia's Economic Agenda 2002

- Continue upgrading the microeconomic business environment
- Strengthen innovative capacity
- **Mount a broad-based program of cluster development**
- Upgrade company strategies
- Pursue stronger economic coordination with neighboring countries
- Articulate a new national economic vision

# Related and Supporting Industries

## Australia's Relative Position

### Competitive Advantages Relative to GDP per Capita

### Competitive Disadvantages Relative to GDP per Capita

Country Ranking

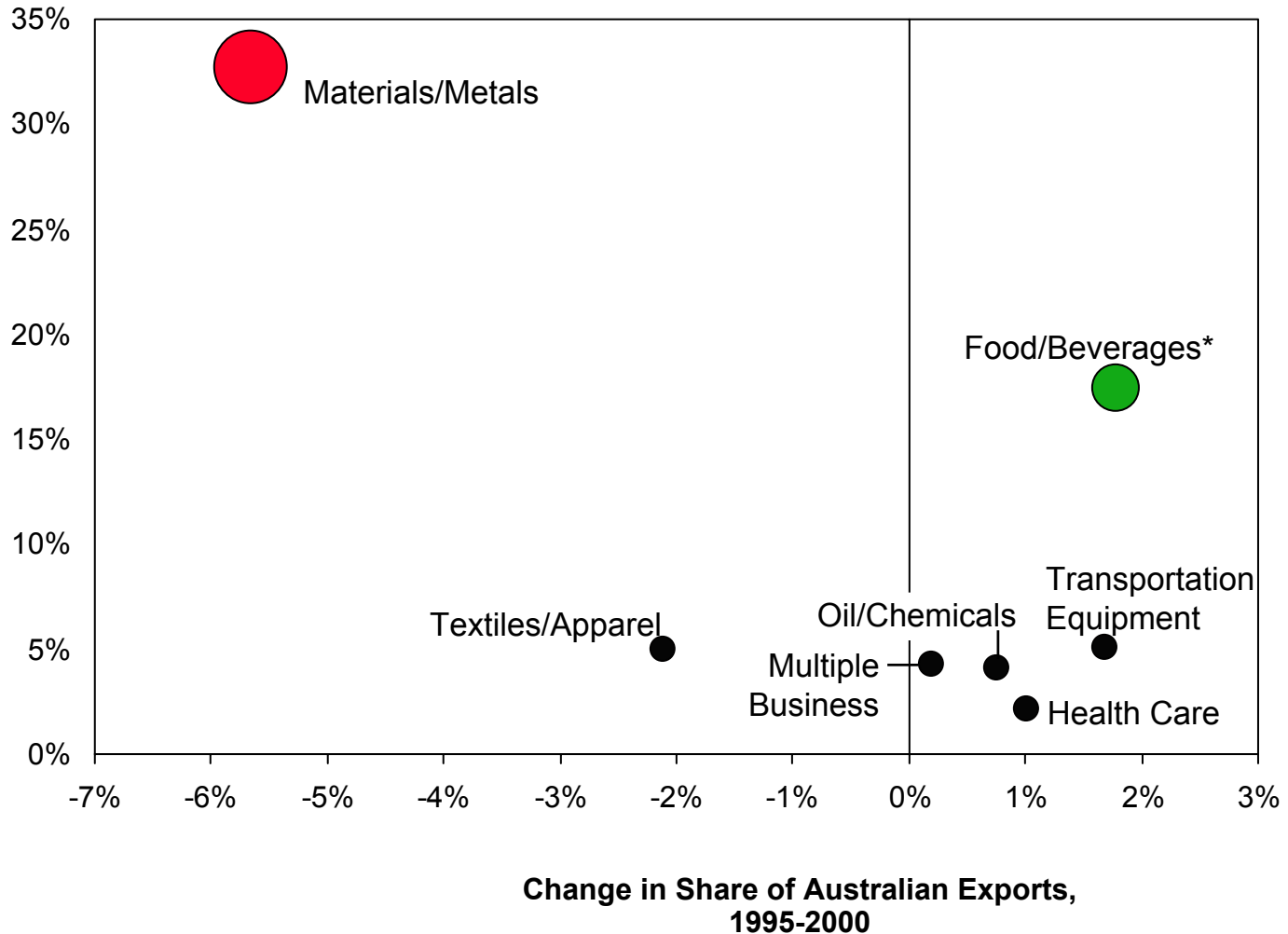
Local Availability of Process Machinery	39
Local Availability of Components and Parts	31
Extent of Product and Process Collaboration	20
Local Supplier Quality	20
State of Cluster Development	16
Local Supplier Quantity	13

Note: Rank by countries; overall Australia ranks 9th (7th on Quality of the National Business Environment; 11th on GDP per Capita)

Source: Global Competitiveness Report 2001

# Australian Export Performance by Broad Cluster

Share of Australian Exports,  
2000



Note: Wine export growth accounts for >45% of the increase in the export share of food/beverages

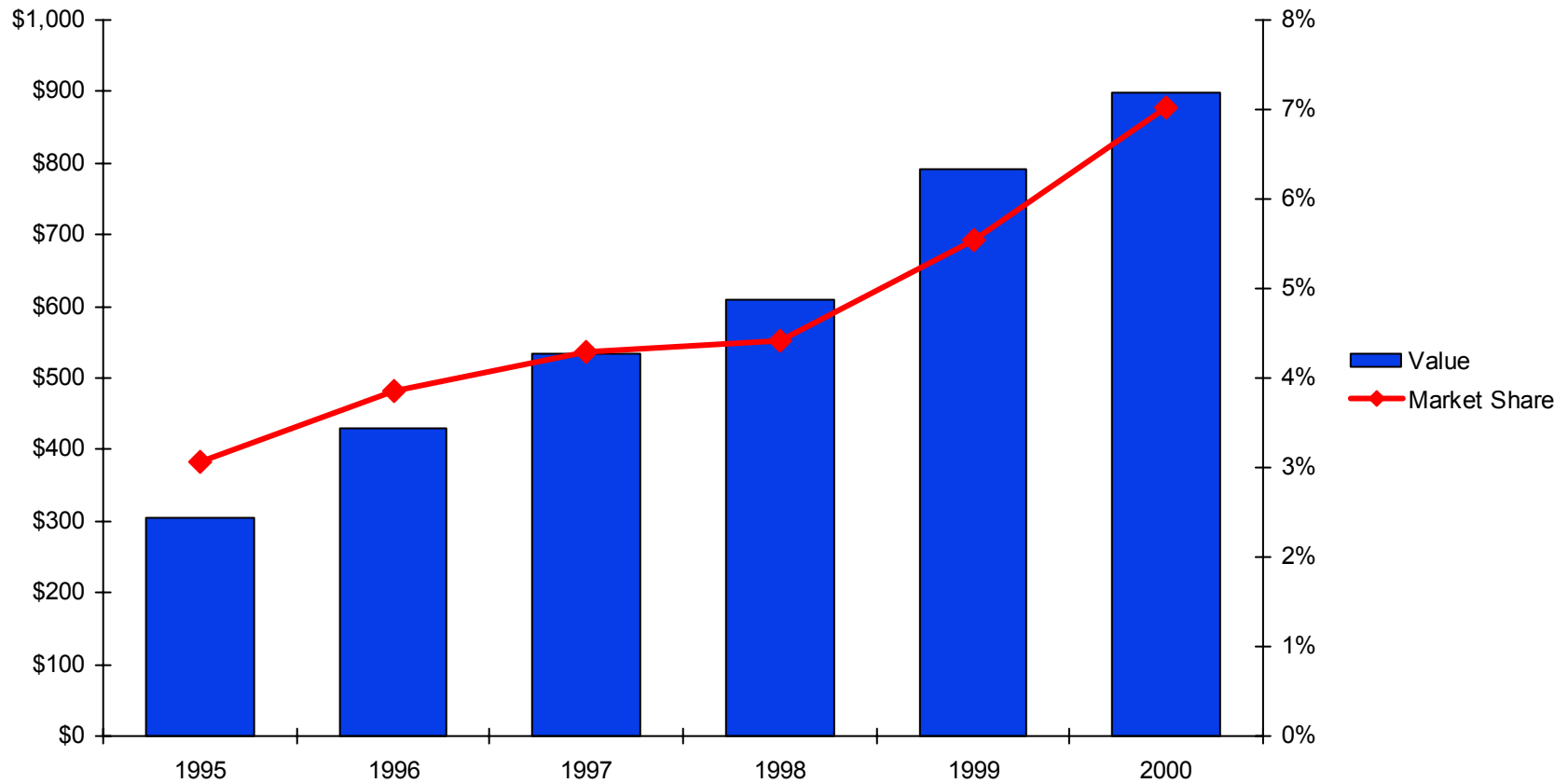
Source: UN Trade Statistics

# The Australian Wine Cluster

## Trade Performance

**Australian Wine Exports in million US Dollars**

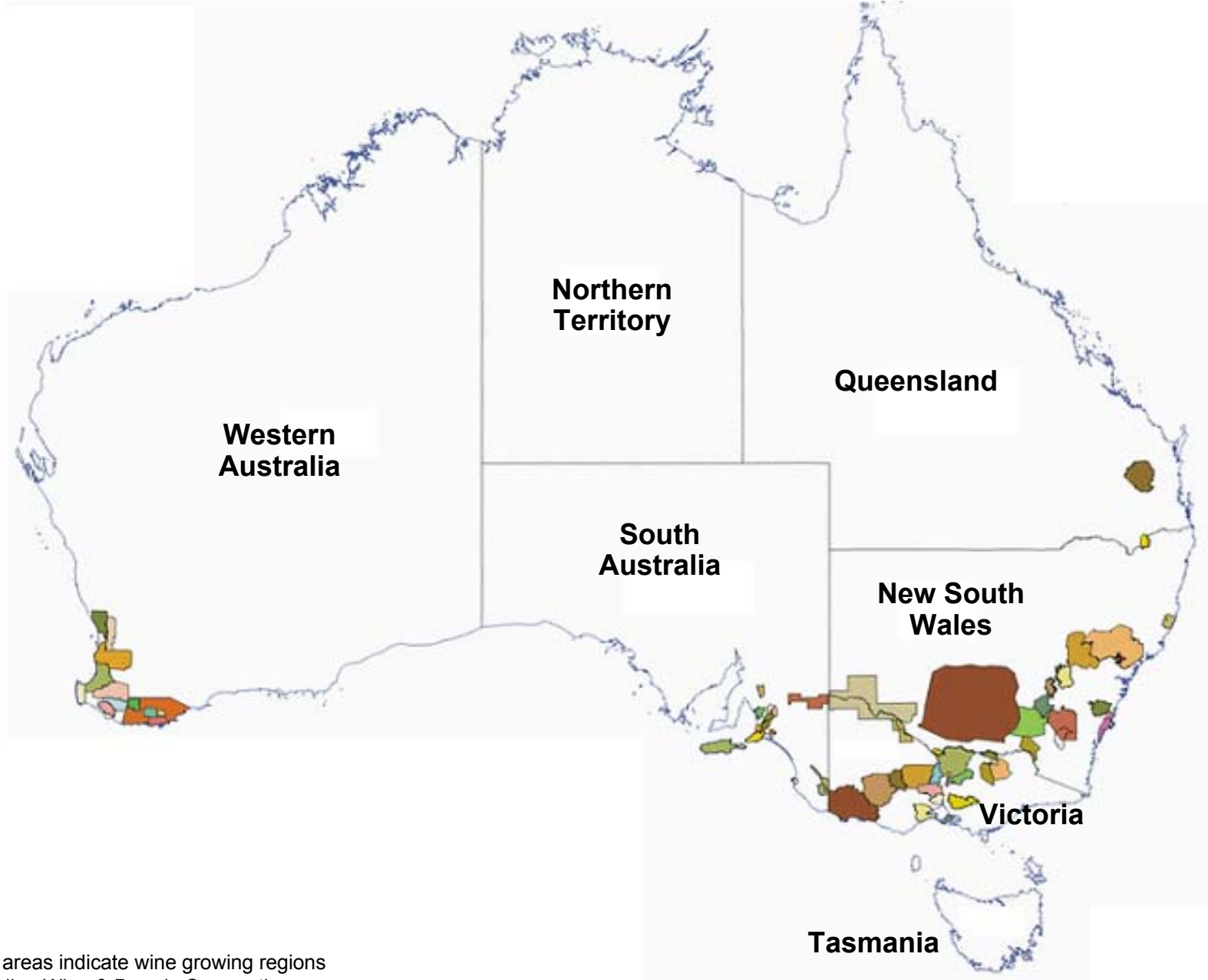
**Australian Wine World Export Market Share**



Source: UN Trade Statistics

# The Australian Wine Cluster

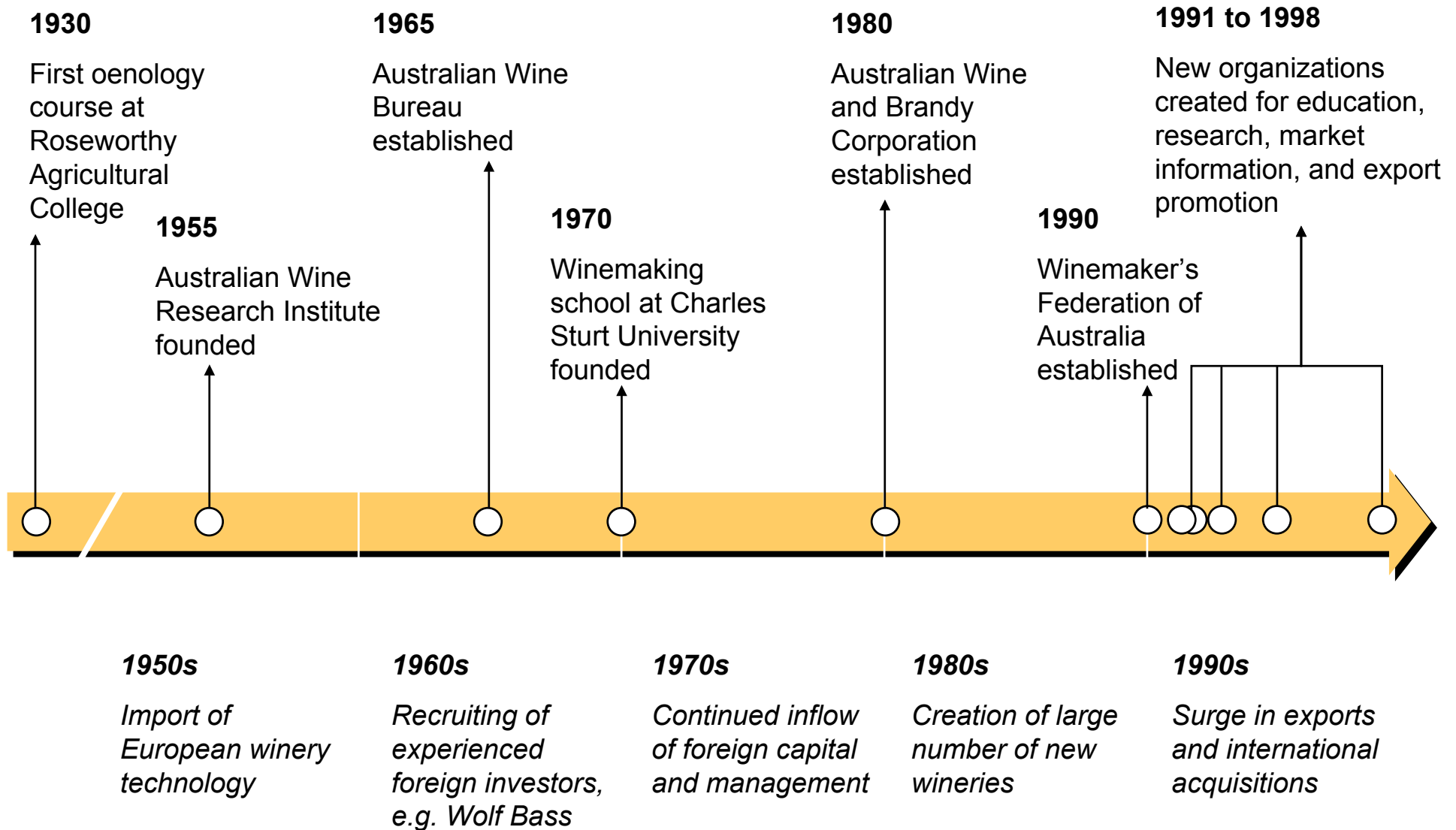
## Locations



Note: Colored areas indicate wine growing regions  
Source: Australian Wine & Brandy Corporation



# The Australian Wine Cluster History



Source: Michael E. Porter and Örjan Sölvell, The Australian Wine Cluster – Supplement, Harvard Business School Case Study, 2002

# 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

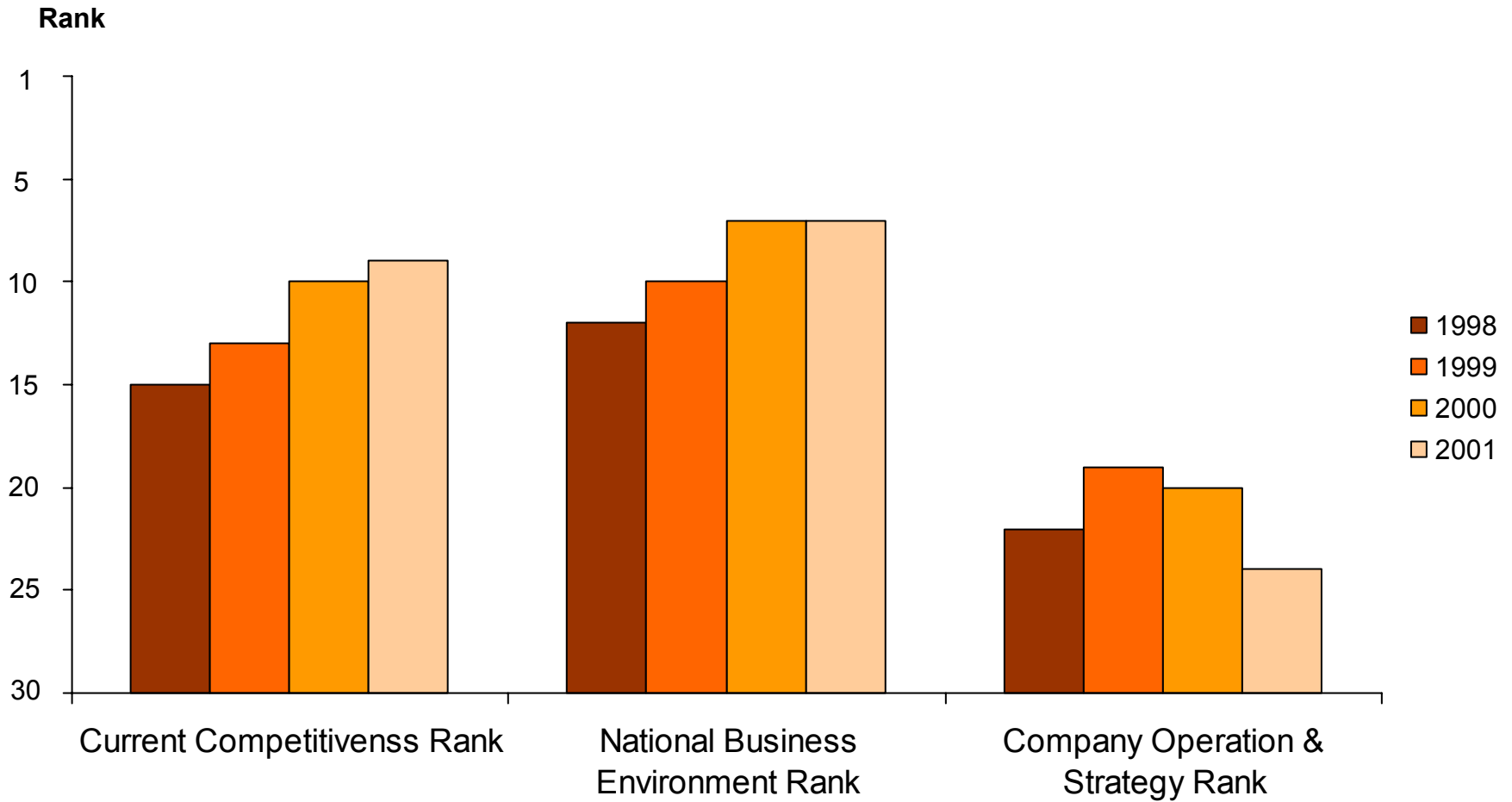
- Established in 1995
- Focus: Coordination, integration, and standard maintenance for vocational training and education
- Funding: Government; other cluster organizations

# Australia's Economic Agenda 2002

- Continue upgrading the microeconomic business environment
- Strengthen innovative capacity
- Mount a broad-based program of cluster development
- **Upgrade company strategies**
- Pursue stronger economic coordination with neighboring countries
- Articulate a new national economic vision

# Current Competitiveness Index

## Australia's Position over Time



# Top Australian Companies 2001

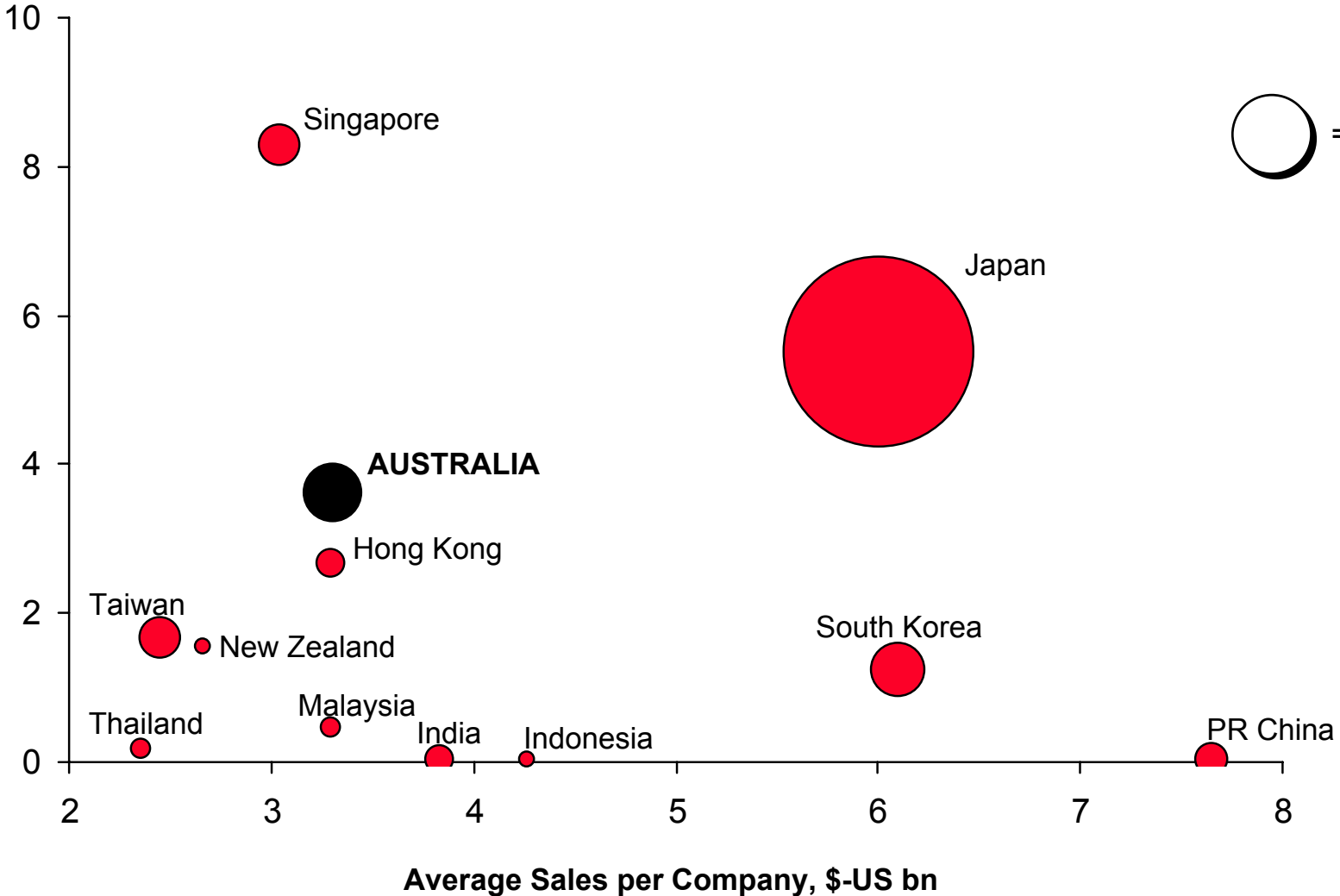
## Among Top 500 Asian Companies

Asian Rank	Organization	Main Business	Sales in US-Dollar	Profit as % Sales
52	BHP BILLITON	Steel, mining, oil	19,079.0	8
76	NEWS CORP.	Publishing, broadcasting	14,894.3	-2.9
80	COLES MYER	Retail	14,448.0	0.6
85	TELSTRA	Telecommunications	13,443.2	17.6
92	WOOLWORTHS	Retailing	12,606.4	2.2
133	RIO TINTO	Mining	10,022.7	15.1
171	TATTERSALLS SWEEP	Gaming	7,971.8	-
186	MITSUI & CO. (AUS)	Commodity trading	7,221.6	0.1
199	LEND LEASE	Property, finance	6,669.7	1.3
211	EXXONMOBIL	Oil and gas products	6,161.4	-
217	QUANTAS	Air transport	5,932.7	4.1
269	SHELL AUSTRALIA	Oil, chemicals, metals	4,835.7	16.7
318	CSR LIMITED	Building materials	4,127.1	8.9
366	BRAMBLES INDUSTRIES	Transport services	3,630.7	2.5
387	METCASH	Food & drink distribution	3,439.2	0.6
389	BP AUSTRALIA	Oil refining	3,433.2	2.2
390	AMCOR	Packaging	3,430.8	4.8
398	FUTURIS CORPORATION	Farm services	3,381.5	1.4
422	TOYOTA MOTOR (AUS)	Car dealership	3,172.7	-0.1
442	PACIFIC DUNLOP	Trading, batteries	3,069.1	-2.6
447	CABLE & WIRELESS	Telecommunications	3,042.2	8.1
462	CALTEX AUSTRALIA	Oil refining	2,933.9	0.7
484	HOLDEN	Cars	2,767.2	5.0

# Company Size and Country Size

## Asian Top 1000 Companies, 2000

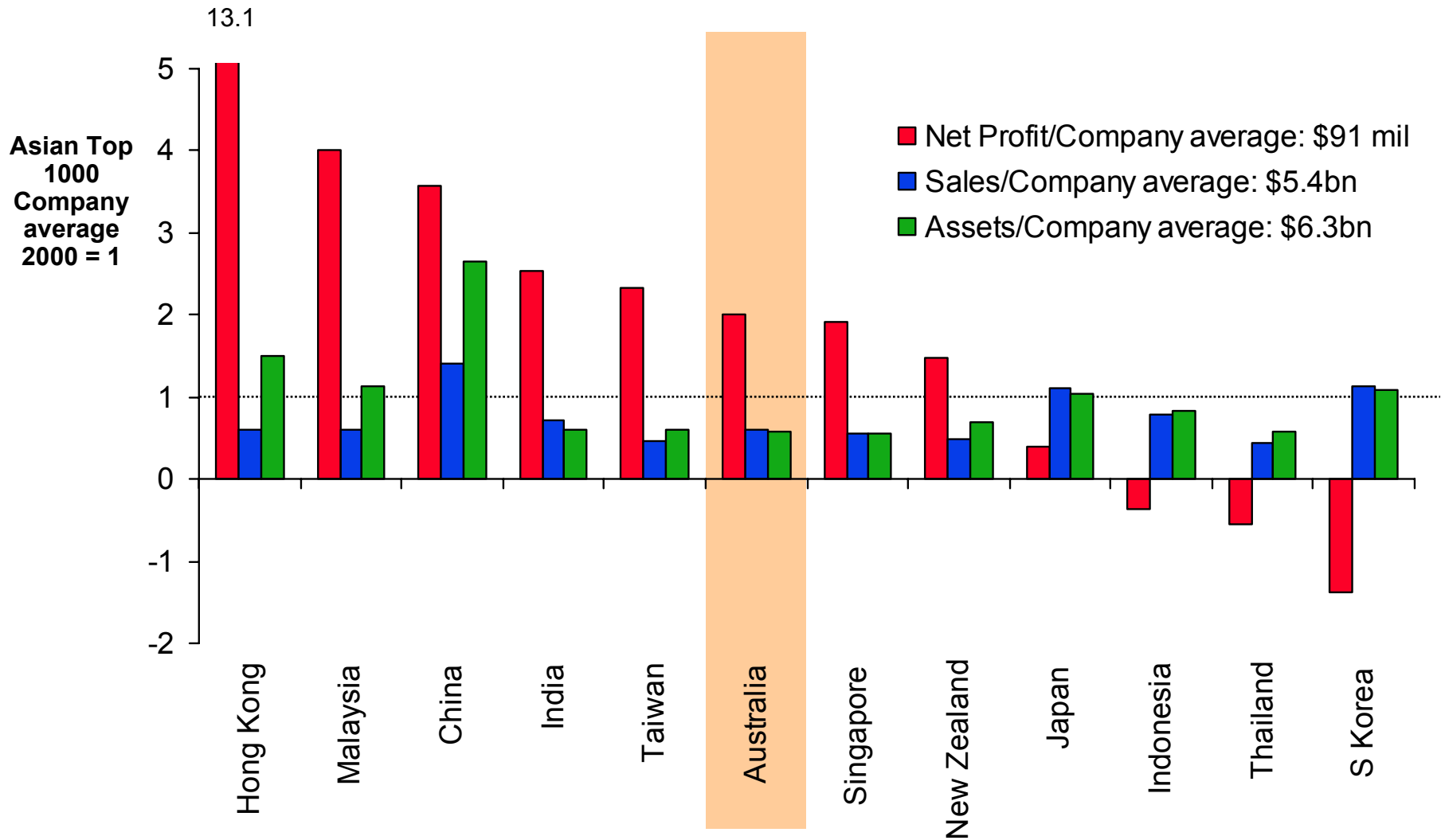
Asian Top 1000  
Companies per 1 million  
population



○ = 100 Companies

# Australian Companies in Comparison

## Asian Top 1000 Companies, 2000



# Company Operations and Strategy

## Australia's Relative Position

### Competitive Advantages Relative to GDP per Capita

Country Ranking

Degree of Customer Orientation	2
Reliance on Professional Management	5
Willingness to Delegate Authority	6

### Competitive Disadvantages Relative to GDP per Capita

Country Ranking

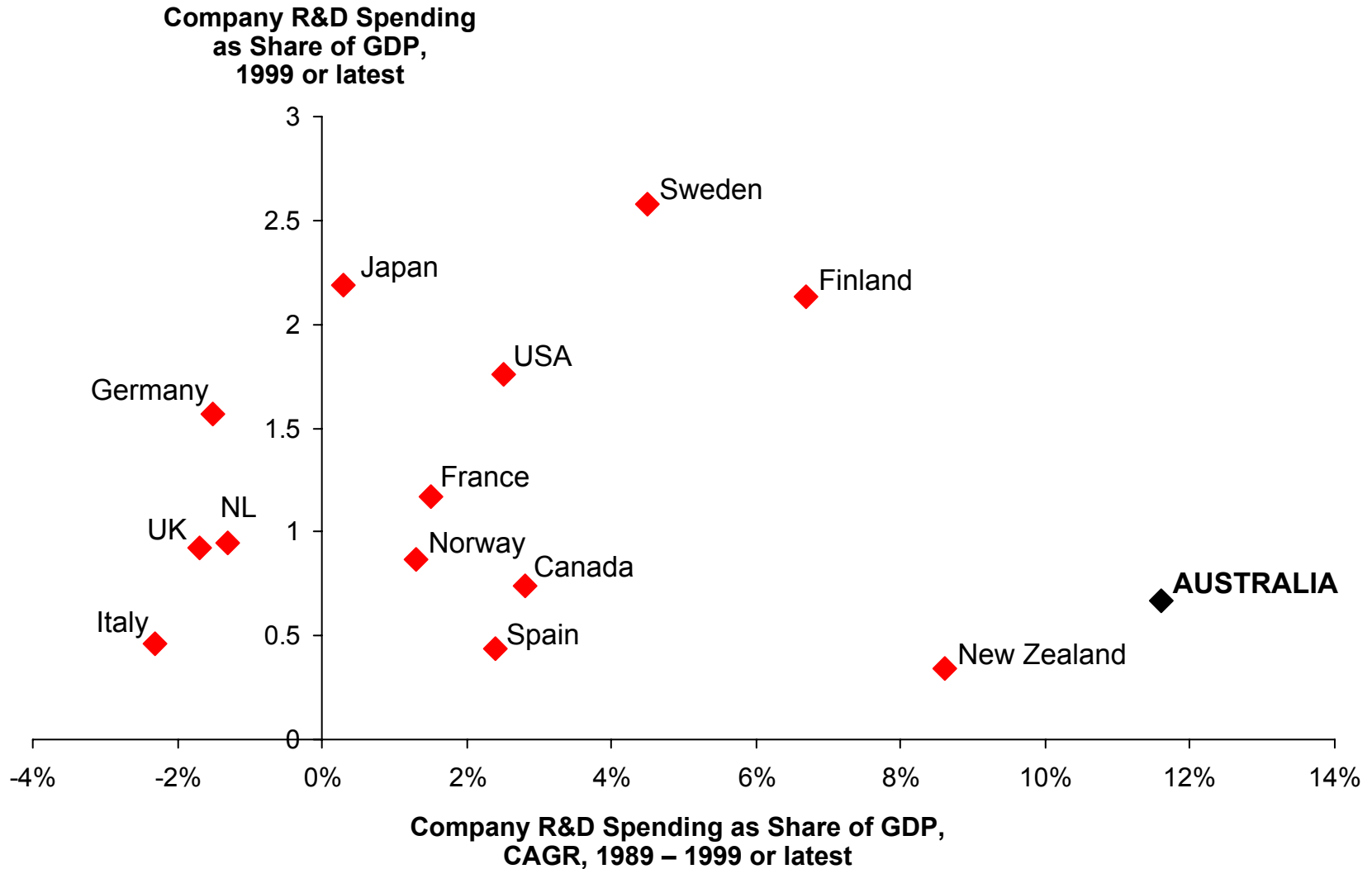
Company Spending on R&D	46
Value Chain Presence	40
Control of International Distribution	36
Breadth of International Markets	35
Capacity for Innovation	28
Extent of Branding	25
Nature of Competitive Advantage	25
Uniqueness of Product Designs	22
Production Process Sophistication	17
Extent of Marketing	15
Extent of Incentive Compensation	11
Extent of Staff Training	11

Note: Rank by countries; overall Australia ranks 9 (24 on Company Operations and Strategy)

Source: Global Competitiveness Report 2001



# Company Spending on R&D Relative to GDP, 1989 - 1999



# Australia's Economic Agenda 2002

- Continue upgrading the microeconomic business environment
- Strengthen innovative capacity
- Mount a broad-based program of cluster development
- Upgrade company strategies
- **Pursue stronger economic coordination with neighboring countries**
- Articulate a new national economic vision

# The Mutual Dependence of Nations and Regions

- A nation's economic growth and prosperity can be **greatly enhanced by healthy neighboring economies**
  - Larger, accessible markets for exports and foreign investment
  - Nations become more attractive as places to invest
  - Nations can focus on their unique strengths
- A nation will **inevitably suffer** if it is amid countries that are not prospering
- A nation's productivity can be **enhanced by regional coordination**

# Regional Strategy and Competitiveness

## Traditional Views

- Regions as **free trade zones**; regions as **economic unions** (e.g. European Union)



## New View

- A regional strategy as a powerful tool to enhance **competitiveness** in autonomous countries:
  - Company Operations and Strategy
    - Increasing **internal** trade and investment
    - Enhancing the **competitive capability** of firms
    - Expanding trade in **non-traditional** export industries
  - Business Environment
    - Policy coordination **enhance the quality of the business environment**
  - Cluster Development
    - **Cross-border cluster** specialization and integration
  - Economic Policy Process
    - Improving economic policy formulation and implementation **at the national level**
  - Attracting Foreign Investment
    - Enhancing interest and investment in the region by the **international community**



- Competitiveness is often more readily achieved and sustained in **moderately sized, competing** economic units

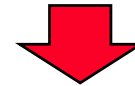
# Levels of Regional Economic Cooperation

**Broad  
Economic Areas,  
e.g. APEC**

- Remove **barriers to trade, investment, and factor movement**
- Establish **common minimum standards** and coordinate investments in **joint physical infrastructure**

**Groups of Proximate  
Neighboring Nations,  
e.g. Oceania**

- Coordinate efforts to enhance the **microeconomic business environment**
- Cross-border **cluster** integration and development



- Proximity enables countries to achieve much deeper integration and enhance the **attractiveness** of the region to the outside world
- Regional institutions and **governance** are required to steer this process

• **APEC can** offer a level playing field for trade and investment



• A **regional agenda** for Oceania can support deeper integration at the microeconomic level

# Australia's Economic Agenda 2002

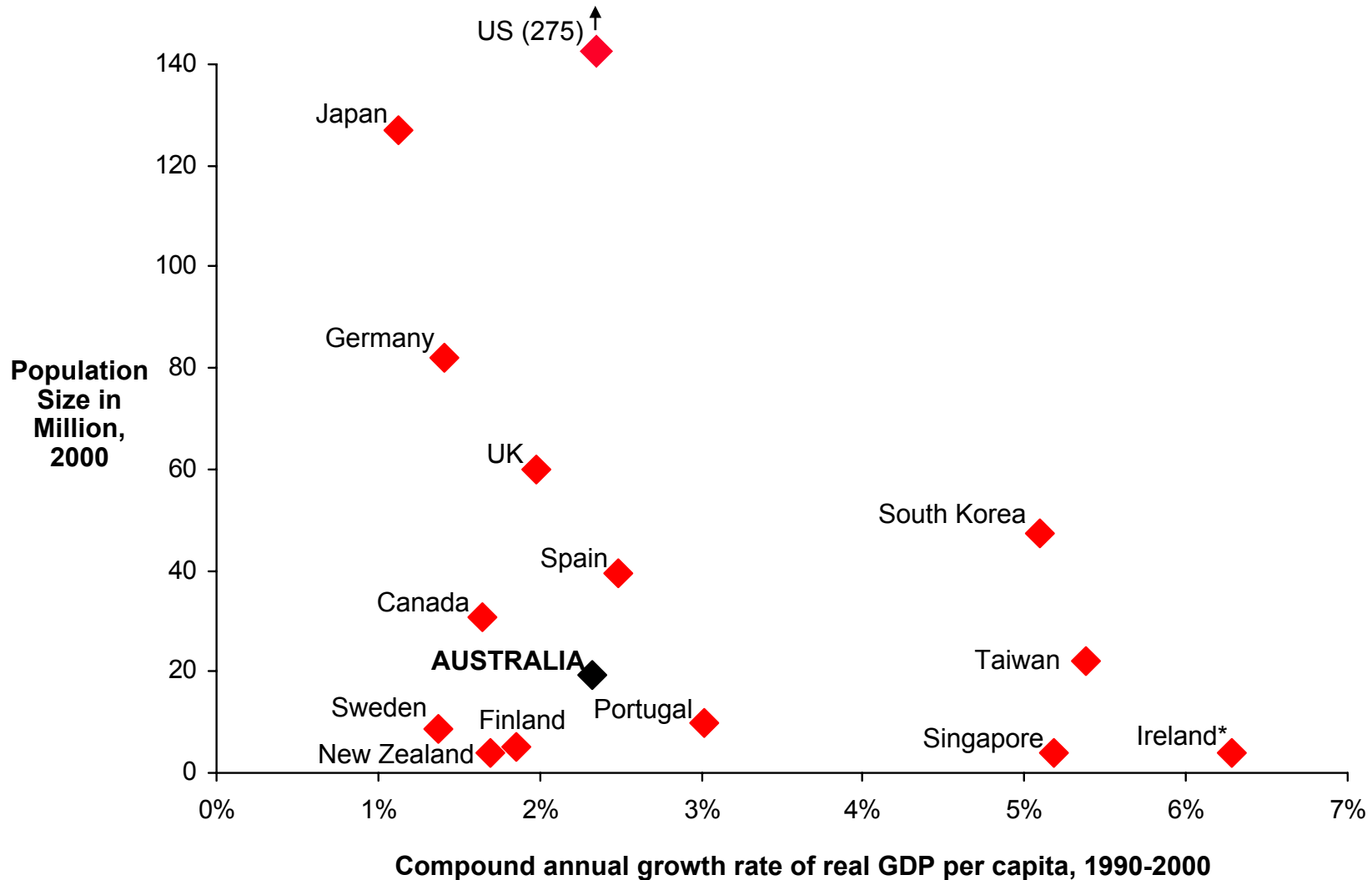
- Continue upgrading the microeconomic business environment
- Strengthen innovative capacity
- Mount a broad-based program of cluster development
- Upgrade company strategies
- Pursue stronger economic coordination with neighboring countries
- **Articulate a new national economic vision**

# Country Size and Competitiveness

- **Large country size** is still considered to be an important asset for competitiveness
  - Large domestic markets are seen as necessary for companies to exploit economies of scale in production
  - Size is seen as giving clout in international economic policy negotiations
- An advantage of size for competitiveness is **not substantiated by the evidence**
  - Many small countries have been exceptionally successful in improving their economic performance
  - Companies from small countries like Estonia, Finland, Singapore, Switzerland, and Taiwan have been among the leaders in competing successfully in world markets
- **Small country size** offers **advantages** that are often overlooked
  - Small countries tend to be more open for trade and investment because there is no pretext of self-sufficiency and protectionist policies inflict higher costs
  - Small domestic markets push companies to meet international competition early, and to internationalize based on an understanding of sophisticated customers
  - Small countries can find it easier to create consensus on the need for economic upgrading, and be quicker in implementing change
  - The disadvantages of small countries are readily overcome by specialization, internationalization of markets, and outsourcing

# Economic Performance and Country Size

## Selected OECD Countries



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



# Competitiveness Upgrading and Prosperity Improvement

## Time Lags Between Policy Change and Outcome

- Changing policies
  - Competitiveness initiatives require concerted policy action on many different levels that take time to coordinate
  - Individual policies and initiatives require years to develop
- Changing behavior
  - It takes time for new rules and incentives to influence behavior and investment patterns
- Changing outcomes
  - Upgrading of innovative capacity and changing patterns of company behavior take time to show up in outputs



- Improving competitiveness is a marathon, not a sprint
- Success depends on maintaining found momentum, not just having a quick start

# Backup

# Web resources

- Institute for Strategy and Competitiveness [www.isc.hbs.edu](http://www.isc.hbs.edu)
- ISC Cluster Mapping Data (US) [data.isc.hbs.edu/isc/index.jsp](http://data.isc.hbs.edu/isc/index.jsp)
- *Cluster of Innovation Initiative*
  - Council on Competitiveness [www.compete.org](http://www.compete.org)
  - Monitor Company [www.monitor.com](http://www.monitor.com)
- Global Competitiveness Report [www.weforum.org](http://www.weforum.org)

# Australia's Unique Advantages

- Endowments
  - Natural-resources as a base to develop clusters
    - Opportunities to become export in managing natural-resource businesses around the world
    - But need to identify missing activities for such clusters
- History
  - Cultural bridge between Asia, North America, and Europe
    - Opportunities to play bridging role in education, media, and other areas
    - But need to embrace all three cultures
- Geography
  - Large distances inside and to other parts of the region
    - Opportunities to service sophisticated demand related to remoteness
    - But need companies and research institutions to explore potential



- Australia needs to leverage its uniqueness as a basis for competitive advantage