New Pressures on the National Innovation System

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Forces of Change on NIS

- Market reliance
- Reduction in government funding
- Declining support for universities
- Emphasis on linkages
- Increasing effects of globalisation
Figure 49. Businesses with Internet access, by employment size, June 1998.

<table>
<thead>
<tr>
<th>Employment Size</th>
<th>Percentage of Businesses with Internet Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4 employees</td>
<td>25.6%</td>
</tr>
<tr>
<td>5-19 employees</td>
<td>32.9%</td>
</tr>
<tr>
<td>20-99 employees</td>
<td>56.6%</td>
</tr>
<tr>
<td>100 or more employees</td>
<td>90.2%</td>
</tr>
</tbody>
</table>
Figure 43. Internet access by region & gender in Australia.
(Per cent of population)
Figure 32. International comparison of computers per 1000 people, 1998.

United States
Finland
Norway
Australia
Canada
Singapore
United Kingdom
Japan
Germany
Korea

Computers per 1000 people

Source: IMD, *The World Competitiveness Yearbook*, 1999
Figure 29. Cross border ownership of inventions, 1993-95. (Percentages)

- Ireland
- Canada
- United Kingdom
- Australia
- OECD average
- Germany
- United States
- Japan

- Domestic ownership of foreign inventions
- Foreign ownership of domestic inventions
Figure 26. Number of scientific publications, 1995.
(Per 100,000 people)

- Finland: 99
- United Kingdom: 93
- Canada: 92
- Australia: 82
- United States: 77
- Germany: 56
- OECD average: 52
- Japan: 42

Publications per 100,000 population
Figure 24. Trends in total numbers of researchers\textsuperscript{a}, 1981-96\textsuperscript{b}.
(Average annual growth rate in per cent)
Figure 22: R&D Expenditure as a percentage of GDP by main sectors of performance, 1997.

(Percentage)
Figure 23. Total Expenditure on R&D per capita, 1997, in US$.

- Switzerland: 1143.2
- Japan: 1034.7
- United States: 770.7
- Germany: 611.3
- Norway: 541.8
- United Kingdom: 381.1
- Singapore: 378.8
- Australia: 371.8
- Canada: 324.3
Figure 14. Participation by adults aged 25-64 in all continuing & training by educational attainment 1994-95.
(Per cent)
Figure 9. Growth in Information and Communication Technologies (ICT) intensity, 1992-1997.

(Per cent)
Figure 8. A comparison of growth in investment in knowledge and physical investment, 1985-1995.
(Average annual growth rate in per cent)
Figure 1. Share of knowledge-based manufacturing\(^1\) and services in business sector, value added, 1996. (Per cent)

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>58.6</td>
</tr>
<tr>
<td>United States</td>
<td>55.3</td>
</tr>
<tr>
<td>Japan</td>
<td>53.0</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>51.5</td>
</tr>
<tr>
<td>Canada</td>
<td>51.0</td>
</tr>
<tr>
<td>OECD Average</td>
<td>50.9</td>
</tr>
<tr>
<td>Australia</td>
<td>48.0</td>
</tr>
<tr>
<td>Finland</td>
<td>42.1</td>
</tr>
<tr>
<td>Korea</td>
<td>40.3</td>
</tr>
</tbody>
</table>

\(^1\) Knowledge-based manufacturing includes high technology manufacturing and high intensity research and development goods manufacturing.
Figure 2. Growth in real value-added of knowledge-based industries and services, 1985-1996.
(Average annual growth rate in per cent)