Chapter 6

Financial and Trade Information

A full set of statistical tables is available with this report. Please view tables 14 to 16 in conjunction with this chapter.

This chapter reports on measures of financial and trade information for the biotechnology sector. This includes the total income and expenditure attributable to biotechnology, as well as comparisons for the private, public and higher education sectors. There is also a measure of R&D expenditure and the value of exports of biotechnology goods, services, processes and knowledge.

Financial and trade information

The figures given for income and expenditure attributable to biotechnology in 2005 now include data from the higher education sector. This data was not published from the Biotechnology Survey 2004, due to methodological difficulties related to the collection of this data from the higher education sector. Statistics New Zealand has improved this area for the Biotechnology Survey 2005.

Figures on biotechnology income and expenditure are subject to large variation and are the areas which are the most difficult to collect reliable time-series data on. This is most commonly due to respondent interpretation of the definition of biotechnology. Data has been released as, despite its variation at the unit record level, it continues to offer the best possible estimate of the size of the sector, and the questionnaire is consistent with OECD and international best practice.

Biotechnology income in New Zealand for the 2005 financial year was valued at $811 million, of which $135 million can be attributed to the higher education sector. Biotechnology income was measured at $675 million (excluding universities) in 2004. The private sector generated the most income from the use of biotechnology, as seen in Figure 6.01.

The biotechnology sector can be compared in size with the fishing industry, which has a total income of $978 million, as reported in the Annual Enterprise Survey: 2004 financial year (provisional) Hot Off The Press.
Figure 6.01

Figure 6.02 shows biotechnology expenditure in New Zealand for the 2005 financial year was valued at $642 million. Of this figure, $125 million can be attributed to the higher education sector. Biotechnology expenditure was measured at $430 million (excluding universities) in 2004.

Public sector expenditure has remained relatively consistent in the last two years, while there was a 33 percent increase in private sector expenditure on biotechnology.

Figure 6.02
Biotechnology source of funds

The Biotechnology Survey 2005 also asked respondents to categorize biotechnology expenditure by the source of the funds.

Table 6.01 shows that the predominant source of biotechnology expenditure came from an organisation's own funds, making up over half of all expenditure on biotechnology. A further $189 million was sourced from New Zealand Government funding agencies.

Table 6.01

<table>
<thead>
<tr>
<th>Funding source</th>
<th>2005 ($million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own funds</td>
<td>330</td>
</tr>
<tr>
<td>NZ Private Sector</td>
<td>51</td>
</tr>
<tr>
<td>NZ Government funding agencies</td>
<td>189</td>
</tr>
<tr>
<td>Other NZ Government</td>
<td>27</td>
</tr>
<tr>
<td>Overseas funds</td>
<td>20</td>
</tr>
<tr>
<td>Other funding sources</td>
<td>26</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>643</strong></td>
</tr>
</tbody>
</table>

(1) Figures are rounded to the nearest million dollars.

Note: Figures may not sum to totals due to rounding.

Biotechnology research and development

The Statistics New Zealand and Ministry of Research, Science and Technology R&D Survey 2004 collected information about biotechnology R&D expenditure. That differed from this report's analysis on biotechnology income and expenditure, as not all expenditure attributable to biotechnology is on R&D. The 2004 R&D Survey was the first time that information on biotechnology R&D was been measured in the New Zealand economy.

Total biotechnology R&D expenditure amounted to $363.1 million for the 2004 reference year, 23 percent of total R&D expenditure in New Zealand. When broken down by sector, the private sector accounted for $141.4 million, the public sector for $136 million, and higher education the remaining $85.7 million.

Biotechnology exports

Exports of biotechnology goods, services, processes and knowledge for the 2005 financial year were valued at $142 million, up from $108 in the 2004 financial year.