



Survey of Research and Experimental Development RD 101 Businesses 2001-02

In correspondence, please quote this number ▼

Australian Business Number

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Please correct any errors

Purpose of Collection

The Research and Experimental Development surveys provide comprehensive data on Australia's R&D effort and are used by government and advisers to government, international organisations such as the OECD and UNESCO, businesses, economists and others.

Office Use Only				
NIL/IMP				
Receipt Number				

Collection Authority

The information asked for is collected under the authority of the *Census and Statistics Act 1905*. Your co-operation is sought in completing and returning this form by the due date. The Act provides me with the power, if needed, to direct you to provide the information sought.

Confidentiality

Your completed form remains confidential to the Australian Bureau of Statistics.

Due Date

Please complete this form and return it in the reply paid envelope to the Australian Bureau of Statistics by **11 October 2002**.

Help Available

If you have problems in completing this form, or feel that you may have difficulties meeting the due date, please contact R&D Statistics by:

Telephone

(02) 6252 5707
(02) 6252 5708
(1800) 065 267 (Freecall)

Facsimile

(02) 6252 6470

Mail

The Australian Bureau of Statistics
Attention: Science and Technology
Locked Bag 10
Belconnen ACT 2616

Dennis Trewin
Australian Statistician

Person we should contact if any queries arise regarding this form

Name		Telephone Number									
Signature		Facsimile Number									
		Date									

Definitions

What is business R&D?

The R&D performed by businesses is generally investigative work which is of actual or potential use in the development of new or enhanced materials, products, devices, processes or services. R&D directed towards duplicating work already developed by others should only be included if the knowledge or technology required for development is not available to this business.

Examples of R&D

- Design, construction and operation of prototypes where the main objective is technical testing or to make further improvements
- Construction and operation of pilot plants not operated or intended to be operated as commercial units
- Research and development of new computer software or substantial modifications to existing computer software. This includes developments which lead to technological or scientific advances in:
 - theoretical computer sciences
 - operating systems e.g.:
 - improvement in resource or interface management, a truly new operating system or the conversion of an operating system to a **significantly** different hardware environment
 - programming languages e.g.:
 - new languages, **significant** extension of an existing language or new or a **significantly** different language translator
 - applications if a **significant** technological step forward is achieved
- ‘Feedback R&D’ directed at solving problems occurring beyond the original R&D phase, for example technical problems arising during initial production runs
- Research work in the social sciences and humanities

R&D excludes (except where used primarily for the support of, or as part of, R&D projects)

- Scientific and technical information services
- Policy related studies, management studies, efficiency studies
- Consumer surveys, advertising, market research
- Routine quality control and testing
- Pre-production activities such as demonstration of commercial viability, tooling up and trial production runs
- Prospecting, exploring or drilling for minerals, petroleum or natural gas

- Cosmetic modifications or style changes to existing products
- General purpose or routine data collection
- Routine computer programming, systems maintenance or software application
- Operations research and mathematical or statistical analysis
- Commercial, legal and administrative aspects of patenting, copyrighting or licensing activities
- Activities associated with standards compliance
- Specialised routine medical care, for example routine pathology services

Where does R&D end?

R&D ends when the work is no longer experimental and pre-production begins.

If the primary objective is to make further technical improvements then the work comes within the definition of R&D.

However, if the material, product etc. is substantially developed and the primary objective is to develop markets, to do pre-production planning or to get production or control systems working smoothly, then the work is no longer considered to be R&D.

Differences between ABS definitions and those of the Tax Concession Scheme and competitive grants for industry R&D

The ABS survey of business R&D is slightly different in terms of definition and scope to both schemes. Differences are as follows:

- ABS seeks data on R&D performed by businesses whether companies, sole traders or partnerships etc. Note that this is irrespective of the amount of R&D expenditure and of the source of funds
- ABS definition of computer software differs slightly in that it makes no distinction between development for own use or multiple sale
- ABS asks data providers to include non-specific R&D that is indirectly attributable to R&D, for example a proportion of general overhead expenditure
- ABS includes research into the social sciences, arts and humanities

Please read this first

- Information reported on this form should comply with Australian accounting standards.
- Report all expenditure items **exclusive of Goods and Services Tax (GST)** where this is recoverable as an input tax credit.
- Please report all monetary values in **thousands of dollars** (\$'000); e.g. report \$20,000 as 20. Where the value in your accounts is not expressed in thousands of dollars, round the value up or down to the nearest thousand dollars.
- If exact figures are not available please provide careful estimates.
- **Please note:** The items listed under *Including* and *Excluding* are examples and should not be taken as a complete list of items to be included or excluded.

Part 1 – General business information

1 Total number of persons working for this business during the last pay period ending in June 2002

Including

- Persons paid a retainer, wage or salary
- Full-time and part-time employees
- Permanent, temporary and casual employees
- Managerial and executive employees
- Employees absent on paid or prepaid leave
- Working proprietors and partners
- Employees on workers' compensation who continue to be paid through the payroll

Excluding

- Persons paid by commission only
- Non-salaried directors
- Self-employed persons such as consultants and contractors
- Volunteers



2 Please describe the activity from which this business derives its **main income** (e.g. manufacture of photographic goods, computer programming service)

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3 Period covered by this form

Note

- This form is for the financial year ended **30 June 2002**.
- If this business has a different financial year, please report for a twelve month period which ends between 1 October 2001 and 30 September 2002 (e.g. a financial year ending 31 December 2001).

Please indicate the period covered by this form

From

 / / 20

To

 / / 20

If the period covered by this form is not 12 months, please explain why.

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Part 2 – R&D carried out by this business

Note

- This part of the form seeks details of R&D carried out by this business on its own behalf or on behalf of others.


Including

- R&D carried out as a participant in any unincorporated joint venture, including participation in any unincorporated Cooperative Research Centre (CRC)
- R&D projects carried out on contract for other legal entities (such as other businesses or incorporated CRCs)
- Contracted out analytical work, engineering or other specialised services which are in support of R&D projects carried out by this business

Excluding

- R&D projects funded by this business but carried out by others using their own facilities
- Contributions to any incorporated CRC
- Provision of specialised services for other organisations' R&D projects

4 Did this business carry out any R&D during the year ended 30 June 2002?

No  Go to **Question 12**

Yes

6 How much did this business spend on R&D during the year ended 30 June 2002 according to the categories below?

(a) Capital expenditure

Note

- If the asset has been/will be used for more than one activity, include only an estimate of the portion used for R&D.

Including

- Expenditure on fixed assets used in the R&D projects of this business
- Acquisition of computer software expected to be used for more than one year
- Purchase of computer databases expected to be used for more than one year
- Capitalised computer software licence fees

Excluding

- Repairs and maintenance
- Depreciation provisions
- Capitalised assets resulting from R&D projects (the component costs of these projects should be recorded in this question where appropriate)
- Software for own account produced as part of R&D (include in current expenditure)

Please report in \$'000

Land; buildings and other structures

0 3

0 2 0

Vehicles, plant, machinery and equipment

0 2 1

(b) Labour costs

Note

- Report wages, salaries and other labour costs for the total person years of effort reported in Question 5.

Including

- Gross earnings before taxation and other deductions
- Overtime earnings, penalty payments and shift allowances
- Leave loadings, bonuses, commission payments
- Employer contributions into superannuation including salary sacrifice
- Fringe benefits tax and payroll tax
- Payments to contract staff on the payroll of this business
- Severances, terminations and redundancies
- Workers' compensation premiums/costs
- Provision expenses for employee entitlements

Please report in \$'000

0 2 2

(c) Other current expenditure

Including

- Materials, fuels and other inputs
- Rent, leasing and hiring expenses
- Repair and maintenance expenses
- Payments to outside organisations for use of specialised testing facilities
- Payments to outside organisations for analytical work, engineering or other specialised services in support of R&D projects carried out by this business
- Commission and consultant expenses for research projects carried out by this business (except wages, salaries and other labour costs for contract staff on this business' payroll)
- Other R&D expenses

Excluding

- Contract R&D expenses where the research project is carried out elsewhere by others on behalf of this business
- Payments for purchases of technical know-how
- Payments for patent searches
- Depreciation provisions












Please report in \$'000

0 2 3

Total

0 2 9

7 Please provide a dissection of the R&D expenditure reported in Question 6 by the location(s) in which this business carried out R&D during the year ended 30 June 2002

	Please report in \$'000	
New South Wales		14 010
Victoria		011
Queensland		012
South Australia		014
Western Australia		013
Tasmania		015
Northern Territory		016
Australian Capital Territory		017
Australian External Territories		020
Overseas		018
Total – to agree with Question 6		019

8 Please provide a dissection of the R&D expenditure reported in Question 6 by the sources of funding for R&D

Note

- Sources should be the original sources providing funds. Funds received from intermediary sources which are funded from several sources should be reported in 'Other Australian sources'.

Including

- Funding from grants, contracts etc.

Excluding

- The value of taxation concessions for R&D

Please report in
\$'000

(a) Business		04
Own funds (including equity, borrowings and retained earnings)	<input type="text"/>	030
Other business	<input type="text"/>	060

(b) Government

Commonwealth government

Including

- Grants made under the R&D Start program
- Grants made under the Commercialising Emerging Technologies (COMET) program
- All other funding for R&D received from the Commonwealth government

Please report in
\$'000

.....	<input type="text"/>	035
State and Local government	<input type="text"/>	036
(c) Joint government/business (i.e. funds provided by levies)	<input type="text"/>	050
(d) Universities	<input type="text"/>	037
(e) Private non-profit organisations	<input type="text"/>	038
(f) Donations and bequests from private individuals	<input type="text"/>	040
(g) Other Australian sources (please specify)		

.....	<input type="text"/>	041
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(h) Overseas sources (please specify)

.....	<input type="text"/>	042
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Total – to agree with Question 6	<input type="text"/>	049
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9 Please give a brief description of this business' R&D projects (e.g. software development, pharmaceutical production, waste disposal)

10 Please classify R&D projects to the most appropriate RFCD code(s) shown on pages 2 and 3 of the attachment and show the code(s) and associated percentage(s) in the spaces provided below

Definition

- The **Research Fields, Courses and Disciplines (RFCD)** classification is based primarily on recognised academic disciplines and evolving areas of study. It is used to describe **'what'** research is being performed.

Note

- More than one RFCD code may be provided if relevant, together with an associated percentage split.
- Percentage splits should be based on expenditure where possible.
- A more detailed classification is provided on pages **4 to 10** of the attachment to assist you in selecting the most appropriate code(s).
- The complete classification, including detailed descriptions, is available in the 1998 edition of the Australian Standard Research Classification (ASRC) which is available for downloading from the Internet (<http://www.abs.gov.au>).

code	%	
<input type="text"/>	<input type="text"/>	00
<input type="text"/>	<input type="text"/>	400
<input type="text"/>	<input type="text"/>	401
<input type="text"/>	<input type="text"/>	402
<input type="text"/>	<input type="text"/>	403
<input type="text"/>	<input type="text"/>	404
<input type="text"/>	<input type="text"/>	405
<input type="text"/>	<input type="text"/>	406

Please specify extra RFCD codes and percentage splits here if there is not enough space above.

11 Please classify R&D projects to the most appropriate SEO code(s) shown on pages 11 and 12 of the attachment and show the code(s) and associated percentage(s) in the spaces provided below

Definition

- The **Socio-Economic Objective (SEO)** classification allows R&D to be categorised according to the purpose of the R&D. It is used to describe **‘why’** research is being performed.

Note

- More than one SEO code may be provided if relevant, together with an associated percentage split.
- Percentage splits should be based on expenditure where possible.
- A more detailed classification is provided on pages 13 to 19 of the attachment to assist you in selecting the most appropriate code(s).
- The complete classification, including detailed descriptions, is available in the 1998 edition of the Australian Standard Research Classification (ASRC) which is available for downloading from the Internet (<http://www.abs.gov.au>).

code	%	
<input type="text"/>	<input type="text"/>	00
<input type="text"/>	<input type="text"/>	420
<input type="text"/>	<input type="text"/>	421
<input type="text"/>	<input type="text"/>	422
<input type="text"/>	<input type="text"/>	423
<input type="text"/>	<input type="text"/>	424
<input type="text"/>	<input type="text"/>	425
<input type="text"/>	<input type="text"/>	426

Please specify extra SEO codes and percentage splits here if there is not enough space above.

.....

.....

Please report in
\$'000

08

12 How much is expected to be spent on R&D carried out by this business during the year ending 30 June 2003?

095

13 What is the estimated percentage of the R&D expenditure reported in Question 6 that is attributable to biotechnology?

Definition

Biotechnology is defined as the application of science and technology to living organisms as well as parts, products and models thereof, to alter living or non-living materials for the production of knowledge, goods and services.

It is based on the following five categories (indicative, not exhaustive):

DNA (the coding) : genomics, pharmaco-genetics, gene probes, DNA sequencing/synthesis/amplification, genetic engineering.

Proteins and molecules (the functional blocks) : protein/peptide sequencing/synthesis, lipid/protein glyco engineering, proteomics, hormones and growth factors, cell receptors/signalling/pheromones.

Cell and tissue culture and engineering : cell/tissue culture, tissue engineering, hybridisation, cellular fusion, vaccine/immune stimulants, embryo manipulation.

Process biotechnologies : Bioreactors, fermentation, bioprocessing, bioleaching, bio-pulping, bio-bleaching, biodesulphurization, bioremediation, biofiltration.

Sub-cellular organisms : gene therapy, viral vectors.

Tick one box

09

- None
- Up to 25%
- Greater than 25% but less than or equal to 50%
- Greater than 50% but less than or equal to 75%
- Greater than 75%

001

Part 3 – Comments

14 If this business is the sole or major contributor to a statistical cell in this survey, would you consent to the release, within statistical tables, of the data?

Note
 • This business would not be named.

No

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Yes Please complete the enclosed 'Instrument of Consent'

157

15 Report in the space below reasons for any significant changes in this business' R&D activity

Including
 • Large increases or decreases from previously reported data
 • Changes in reporting procedure
 • Changes in your accounting period
 • Company restructuring

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16 Please provide an estimate of the time taken to complete this form

Including
 • The time actually spent reading the instructions, working on the questions, and obtaining the information
 • The time spent by all employees in collecting and providing this information

hours mins 00

..... 750

17 Please provide comments

- on any of the information you have supplied on this form
- on any questions which caused problems
- if you would like to suggest improvements to this form

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Thank you for completing this form