The Senate

# Economics
# Legislation Committee

## Tax Laws Amendment (Research and Development) Bill 2010 [Provisions] and Income Tax Rates Amendment (Research and Development) Bill 2010 [Provisions]

June 2010

ISBN 978-1-74229-327-1

Printed by the Senate Printing Unit, Parliament House, Canberra.

# Senate Economics Legislation Committee

**Members**

| | |
|---|---|
| Senator Annette Hurley, Chair | South Australia, ALP |
| Senator Alan Eggleston, Deputy Chair | Western Australia, LP |
| Senator David Bushby | Tasmania, LP |
| Senator Doug Cameron | New South Wales, ALP |
| Senator Louise Pratt | Western Australia, ALP |
| Senator Nick Xenophon | South Australia, IND |

**Participating Members participating in this inquiry**

| | |
|---|---|
| Senator Chris Back | Western Australia, LP |
| Senator the Hon Richard Colbeck | Tasmania, LP |

**Secretariat**

Mr John Hawkins, Secretary
Ms Sandra Kennedy, Principal Research Officer
Ms Hanako Jones, Executive Assistant
Mr Joshua See, Executive Assistant

PO Box 6100
Parliament House
Canberra ACT 2600
Ph: 02 6277 3540
Fax: 02 6277 5719
E-mail: economics.sen@aph.gov.au
Internet: http://www.aph.gov.au/senate/committee/economics_ctte/index.htm

# TABLE OF CONTENTS

# Summary and Recommendations

Research and development (R&D) by businesses can lead to innovations which boost productivity, an important contributor to economic growth. The Committee notes that Australia's R&D performance, allowing for its industrial structure, is comparable to its peers. It believes that there is potential for the economy to grow faster if businesses undertook R&D which provides value for taxpayer support and stimulates growth in value adding activities. It therefore understands why successive Australian governments have operated schemes to use tax concessions, among other measures, to encourage firms to undertake R&D.

The current scheme, however, does not make the best use of the money which taxpayers are foregoing. This bill seeks to reprioritise this support. An effective scheme will focus on generating *additional* R&D which brings broader benefits which *spill over* to other companies, rather than merely benefiting the company undertaking it. This is more likely to occur when the support goes more to small to medium, newer, more innovative companies undertaking genuine R&D. Too much support under the current scheme is going to large established firms undertaking routine spending only tangentially related to research and benefiting only themselves. It is unsurprising that such firms, and their advisers, may oppose the bill, but the mere fact that big companies currently receive support is not in itself a justification for their continuing to receive it. It is neither sustainable nor in the national interest that 60 per cent of the total government support for business R&D is consumed by 100 firms out of Australia's two million enterprises.[1]

The design of the new R&D assistance has been informed by a number of detailed inquiries with broad consultation with industry, unions and consultants, both before and since the release of the exposure draft.

A significant change welcomed by the Committee is allowing companies with turnover less than $20 million to receive a tax credit, rather than having to wait until they are profitable to benefit from the tax concession. This recognises that many new innovative companies may take some years to become profitable and it is precisely during this period that support is most beneficial. The Committee is also pleased that the level of support for smaller companies increases to the equivalent of a 150 per cent deduction (from the present 125 per cent), doubling the after-tax value of the support. The removal of the complex 175 per cent incremental premium, which perversely rewards volatile R&D and is of no assistance to new firms, is also a step forward.

A change in the bill that attracted wide support is removal of the requirement that intellectual property be owned in Australia. Similarly the changes to the exclusions surrounding 'in house' software have been generally applauded.

---

1 Senator the Hon Kim Carr, Minister for Innovation, Industry, Science and Research, *Senate Economics Committee Hansard*, 31 May 2010, p. 51.

While the intent of the bill is to ensure that access to R&D support is timely and targeted, the Committee is concerned that there appears to be a mistaken view that the bill proposes to restrict support solely to (basic) research. In particular, the proposition was advanced that requiring supporting expenditure to have a 'dominant purpose' of supporting core R&D was excessively restrictive. The opportunity should be taken to ensure the intent of the law is clear prior to its enactment and a process is in place to monitor and review issues as they arise.

**Recommendation 1**

**The Committee recommends that subsection 355-5(2) of the objects clause be amended to clarify the reference to 'new knowledge or information in either a general or applied form' by adding 'new knowledge in an applied form includes new or improved materials, products, devices, processes or services'.**

**Recommendation 2**

**The Committee notes that many of the concerns were raised by organisations who want to maintain the status quo. Nevertheless, given the concerns raised, but acknowledging the need to ensure that public support is targeted appropriately, the Committee recommends that the definition of 'core R&D activities' in section 355-25 be amended to remove the word 'about' from paragraph 355-25(1)(b) so that the paragraph reads as:**

> **[talking about experimental activities] that are conducted for the purpose of generating new knowledge (including ~~about~~ the creation of new or improved materials, products, devices, processes or services).**

**Recommendation 3**

**Given the scope of the changes proposed, the Committee is of the view that the amended provisions, including the effect of the 'dominant purpose' test, be reviewed after two years to ensure that the legislation is operating consistently with the Government's intent.**

The Committee supports the goal of reducing complexity which is an impediment to small business benefiting from the assistance. It commends the many areas where the bill has simplified matters. The Committee notes some concerns about the complexity of the feedstock provisions and the dominant purpose test but does not believe these will be a problem for large companies. The Committee recommends that some of the additional $38 million in funding being provided to the Australian Taxation Office and the Department of Innovation, Industry, Science and Research is used to help small businesses comply with the provisions.

**Recommendation 4**

**The Committee recommends that companies with revenues under $20 million be exempt from the dominant purpose test.**

**Recommendation 5**

**The Committee recommends that a broad–based working group including small business and union representatives be established to advise Innovation Australia and the Department of Innovation, Industry, Science and Research about any unforeseen circumstances that emerge as the bill is implemented. This working group would also inform the two year review of the bill (Recommendation 7).**

The Committee notes concerns about the capacity of Innovation Australia to assess eligibility claims. Having considered the evidence presented, the Committee takes the view that they have the expertise and the requisite knowledge and skills to make decisions. The general guidance material and public findings to be provided should mitigate the compliance concerns raised by some submitters.

The Committee's attention was drawn to claimed drafting errors.

**Recommendation 6**

**The Committee notes the claim of drafting errors. The Committee notes that minor drafting errors are common when framing new legislation. The Committee does not believe that these minor errors are of sufficient magnitude to delay passage of the bill but considers it preferable that they be dealt with before the bill is enacted.**

The Committee expects the bill will increase the amount of R&D by small firms and in time this should lead to stronger economic growth. Firms continuing to receive assistance will be paid at a higher rate. On the other hand, the 175 per cent premium concession is being abolished and eligibility rules tightened. The Committee accepts Treasury's modelling that the net impact will be about revenue-neutral, although it is hard to be precise. Given these uncertainties the operation of the bill should be reviewed after it has been operating for some time.

There have been calls for the Senate to delay considering the bill and defer its operation for a year. The Committee takes the view that many of these calls are more an expression of opposition to the Government's policy objective of targeting R&D assistance more towards small and medium enterprises and spreading the benefits more effectively across industry. This opposition is unlikely to disappear as a result of further discussion. The Committee believes its recommendations address the misapprehensions that have led to some calls for delay.

**Recommendation 7**

**The Committee recommends that the Senate pass the bill, with the amendments proposed in the earlier recommendations, before the end of June 2010. The operation of the bill should be monitored on an ongoing basis and reviewed after two years.**

# Chapter 1

# Tax Laws Amendment (Research and Development) Bill 2010
# Income Tax Rates Amendment (Research and Development) Bill 2010

## Background

1.1 The Tax Laws Amendment (Research and Development) Bill 2010, together with its supporting bill, the Income Tax Rates Amendment (Research and Development) Bill 2010, introduces a new research and development tax incentive. The introduction of this incentive will provide increased assistance for genuine R&D and redistribute funding support in favour of small and medium sized enterprises.[1]

1.2 By introducing a clearer definition of core R&D activities, a robust test for supporting R&D activities and a more rigorous administrative framework, the bill seeks to ensure that only genuine R&D receives public funding.[2]

1.3 The new incentive will be delivered to eligible entities engaged in eligible R&D activities through:

- a 45 per cent refundable tax offset for companies with a turnover of less than $20 million; and
- a 40 per cent non-refundable tax offset for all other companies.[3]

1.4 In addition, the bill seeks to provide consistent treatment for software and rationalises the activities currently excluded from receiving R&D incentives.

1.5 In their submission to this inquiry, Treasury and the Department of Innovation, Industry, Science and Research informed the committee that:

> The bill refocuses the tax incentive for R&D…The reforms are consistent with the recommendations of the 2008 review of the National Innovation system and the Government's policy response, Powering Ideas – its 10 year innovation agenda.[4]

---

1 Dr Craig Emerson MP, Minister for Small Business, Independent Contractors and the Service Economy, Second Reading Speech, *House of Representatives Hansard*, 13 May 2010, p. 1.

2 Second Reading Speech, *House of Representatives Hansard*, 13 May 2010, pp 1-2.

3 Second Reading Speech, *House of Representatives Hansard*, 13 May 2010, p. 2.

4 The Treasury and Department of Innovation, Industry, Science and Research, *Joint Submission*, 20 May 2010, p. 3.

1.6 The Government announced these changes in the 2009-10 federal budget when additional funding of $38 million over four years was committed to the responsible government agencies to support the measure's implementation.[5]

1.7 The Government has also announced that introduction of the new tax incentive is intended to be revenue neutral.[6] This report assesses the bill on this basis rather than asking whether the total amount spent on tax incentives for R&D should be raised or lowered.

## Conduct of the inquiry

1.8 On 13 May 2010 the Tax Laws Amendment (Research and Development) Bill 2010 and a related act, the Income Tax Rates Amendment (Research and Development) Bill 2010, were introduced into the House of Representatives. That same day the Senate referred the bills to the Economics Legislation Committee for inquiry, resolving that the due date for reporting would be 15 June 2010.

1.9 In recommending that the Senate refer the bills for inquiry, the Selection of Bills Committee noted industry's concern with the proposed definitions of 'core' and 'supporting' research and development activities which the bill seeks to introduce.[7]

1.10 The committee advertised the inquiry in *The Australian* and on its website. A large numbers of stakeholders were also invited to make submissions.

1.11 The committee received 31 submissions (listed in Appendix 1) which are available for viewing on the committee's website http://www.aph.gov.au/Senate/committee/economics_ctte/research_and_development_tax_credits_10/submissions.htm and held public hearings in Canberra and Sydney on 20 and 21 May 2010. (A list of stakeholders who appeared before the committee is set out in Appendix 2).

1.12 The committee thanks all those submitters and witnesses for their contribution and participation in the inquiry process.

## Structure of the report

1.13 This report is divided into the following chapters:

- Chapter 2 provides a summary of the changes that stand to be introduced by the bill. It also sets out an overview of the consultation process and studies that preceded the proposed changes;

5 Second Reading Speech, *House of Representatives Hansard*, 13 May 2010, p. 2.

6 Second Reading Speech, *House of Representatives Hansard*, 13 May 2010, p. 2.

7 Senate Selection of Bills Committee, *Report No. 7 of 2010*, 13 May 2010, Appendix 7.

- Chapter 3 explores the role of innovation and productivity in the economy, looking particularly at the role of R&D in the innovation process;
- Chapter 4 considers how R&D assistance can be most effectively provided by consideration of the issues of 'spillover' and 'additionality';
- Chapter 5 examines the key changes to the R&D tax framework that will be introduced by the bill; it is these changes that have received the most attention throughout the course of the inquiry;
- Chapter 6 considers the complexity of the proposed changes and addresses the request of some stakeholders to delay the bill's passage. This chapter also discusses the minor matters of transitional measures and drafting comments;
- Chapter 7 explores the expanded role of the Innovation Australia Board and the Australian Taxation Office under the changes; and
- Chapter 8 provides an overview of the impact of the changes on R&D activities in Australia, the budget and the broader economy.

# Chapter 2

# Research and Development Tax Incentive

## The existing R&D tax concession

2.1 The legislative provisions that govern the existing tax concessions for R&D are set out in sections 73B to 73Z of the *Income Tax Assessment Act 1936* (ITAA 1936) and Part IIIA of the *Industry Research and Development Act 1986* (IR&D Act). These provisions, which were introduced to encourage research and development in Australia and make eligible companies more internationally competitive,[1] provide concessions for particular expenditure on defined activities.

2.2 There are four elements to the existing R&D tax concession:

- a 125 per cent tax concession that provides claimants with a deduction of 125 per cent of eligible expenditure incurred on Australian owned R&D activities;
- an R&D tax offset that enables small companies with an annual turnover of less than $5 million and whose aggregate Australian-owned R&D expenditure is more than $20,000 but less than $1 million[2] to obtain a tax offset equivalent to their tax concession entitlement;
- an incremental 175 per cent premium tax concession for those companies that increase their R&D expenditure in Australia relative to their average R&D expenditure over the previous three years; and
- an incremental 175 per cent international premium tax concession available for increases in foreign-owned R&D activities carried on by a company incorporated in Australia.[3]

2.3 Responsibility for administering the current concession is split between the Commissioner of Taxation and the Innovation Australia Board. To access the concession a company must have registered its R&D activities with Innovation Australia before then completing the relevant sections of their income tax return.[4]

---

1 Section 73B(1AAA), *Income Tax Assessment Act 1936*.

2 Following the announcement of the changes in the 2009-10 federal budget the Government increased this grouped expenditure threshold to $2 million for the 2009-10 income year.

3 AusIndustry and Australian Taxation Office, *Guide to the R&D Tax Concession*, Part A, Version 4.3, February 2010, p. 9.

4 AusIndustry and Australian Taxation Office, *Guide to the R&D Tax Concession*, Part A, Version 4.3, February 2010, p. 11.

2.4 The cost of the current scheme has been increasing over the past few years as the value of R&D claimed has risen sharply (Table 2.1).

**Table 2.1 – Value of R&D claims**

| | 2005-06 | 2006-07 | 2007-08 |
|---|---|---|---|
| | $mn | $mn | $mn |
| R&D concession (not including incremental) | 9,620 | 12,310 | 14,870 |
| R&D incremental concession | 820 | 1,230 | 1,250 |
| R&D refundable tax offset | 290 | 310 | 390 |
| ***Total value of claims*** | ***10,730*** | ***13,850*** | ***16,510*** |

Source: Australian Taxation Office, Answers to Questions on Notice, Senate Economics Legislation Committee, Additional Estimates, 10-11 February 2010, Question aet 36, p. 2.

2.5 The numbers of claimants under the various components of the current scheme are shown in Table 2.2.

**Table 2.2: Current R&D tax concession scheme**

| | Estimated cost, $mn, 2009-10 | Number of companies registered, 2007–08 | Reported R&D, $bn, 2007–08 |
|---|---|---|---|
| 125% concession | 650 | 2,986 | 4.6 |
| Tax offset | 522 | 2,712 | 0.8 |
| 175% premium | 350 | 1,473 | 8.5 |
| International premium | | 7 | 0.0 |
| combinations | | 576 | 0.3 |
| Total | 1,522 | 7,754 | 14.2 |

Source: derived from *Innovation Australia, Annual Report 2008-09*, p. 25; information from DIISR.

2.6 The Government hopes the changes in the bill will open the incentives to more of Australia's two million businesses:

> At the moment 100 firms are getting around 60 per cent of the total, the equivalent, in this financial [year], of $1.5 billion. The current scheme, which was a good scheme when it was introduced, is in need of renovation. There are going to be a lot of folk out there—the 100 firms—that have a huge vested interest in keeping the current scheme the way it is. We are actually in the business of helping the 8,000 firms that are currently registered—and I would like to see a lot more firms. Given that we have two million firms in this country, the fact that we have only 8,000 registered for the scheme strikes me as way short of what we need to do as a country.[5]

## Rationale for the proposed changes

2.7 The changes set out in the Tax Laws Amendment (Research and Development) Bill 2010 and the Income Tax Rates Amendment (Research and Development) Bill seek to modernise the existing incentive by cutting red tape and providing a more targeted incentive thereby ensuring that 'public support for business R&D is consistent with the underlying rationale for government intervention and delivers value for money for taxpayers.'[6]

2.8 The bills currently before the parliament will achieve these stated objectives by repealing the complex provisions that currently apply and replacing them with a much simpler tax offset. The rate of the offset and whether or not it will be refundable will be dependant on the entity's turnover.[7]

2.9 Like the existing test, the offset will only be accessible where the company involved is investing in eligible R&D activities, the definition of which will be redefined by the passage of the Tax Laws Amendment (Research and Development) Bill 2010.

2.10 It should be noted that the IR&D Act will continue to operate in concert with the new Division 355 – Research and Development in the *Income Tax Assessment Act 1997* (ITAA 1997).

---

5 The Hon. Senator Kim Carr, Minister for Innovation, Industry, Science and Research, *Senate Estimates Hansard*, 31 May 2010, p. 51.

6 Explanatory Memorandum, Tax Laws Amendment (Research and Development) Bill 2010, para 1.6, p. 12.

7 Explanatory Memorandum, p. 12.

2.11 The after tax benefit[8] of the different R&D concession rates over time are set out in Table 2.3.

2.12 Under the existing regime, eligible entities are entitled to claim a deduction. The amount of the deduction is used to reduce the taxpayer's taxable income. Under the proposed scheme, either a refundable or non-refundable offset will be available. Offsets are applied to reduce the calculated tax liability, therefore, if there is an excess the taxpayer is entitled to a refund unless their turnover exceeds $20 million, in which case, the excess offset will be carried forward to be applied against their tax liability for the next year.

**Table 2.3**

| Financial year(s) | Tax rate (%) | Incentive rate (%) | After tax benefit |
|---|---|---|---|
| **87-88** | 49 | 150 | 24.5 |
| **88-89 to 92-93** | 39 | 150 | 19.5 |
| **93-94 to 94-95** | 33 | 150 | 16.5 |
| **95-96 to 96-97** | 36 | 150 | 18.0 |
| **96-97 to 00-01** | 36 | 125 | 9.0 |
| **Current** | 30 | 125 | 7.5 |
| **Ongoing (IF BILL NOT PASSED)** | 28 | 125 | 7.0 |
| **IF BILL PASSED:** | | | |
| **2010-11 (turnover less than $20 million)** | 30 | 150* | 15 |
| **2010-11 (turnover greater than $20 million)** | 30 | 133* | 10 |

Source: Adapted by Secretariat from Victorian Innovation Economy Advisory Board, 2006. *equivalent calculated under the proposed regime of a refundable tax offset.

8 The after tax benefit is the value of the additional deduction, ie the additional 50 per cent where the deduction was 150 per cent of expenditure. For example, in 1988 the applicable tax rate was 49 per cent meaning business deductions would be worth 49 cents, however, if the deduction were for R&D expenditure, the entity would be able to claim a deduction for one and a half times the actual expenditure, the result being that the company would receive an additional 24.5 cent (49/2) deduction for their actual expenditure.

## Role of AusIndustry/Innovation Australia

2.13 Under the existing regime, the Innovation Australia Board, with the assistance of AusIndustry officials, is responsible for registering the R&D activities of eligible companies seeking to access the concession annually.[9]

2.14 Registration is not an indication that the activities of the company seeking to access the concession are eligible R&D, rather entities self assess and register. The Board then reviews registered companies through its internal assessment process or on referral from the Tax Office.[10]

2.15 When reviewing registrations, the Board reviews the facts to determine whether or not the facts fall within the words of the definition.[11]

2.16 Innovation Australia determines the eligibility of R&D activities; the Tax Office considers the eligibility of R&D expenditure.[12] The role of Innovation Australia is discussed in Chapter 7. R&D activities and R&D expenditure are defined in Chapter 5.

2.17 The existing R&D concession regime operates in an environment of self assessment; the Board and the Tax Office provide guidance material to assist companies seeking to access the concessions to self assess their eligibility. This is consistent with the broader operation of Australia's tax system.

2.18 This will not change under the amendments set out in the bills; entities will still be required to assess their eligibility for the R&D tax incentive under the new rules of Division 355. They will however be required to identify, on application, both their core and supporting R&D activities.

2.19 This obligation, which will be introduced by the bill, will be accompanied by a requirement that Innovation Australia then confirm or reject the applicant's claim.[13] Although the amended provisions provide for greater integrity in the application and registration process, the explanatory memorandum to the bill notes at paragraph 5.28 that:

---

9 AusIndustry and Australian Taxation Office, *Guide to the R&D Tax Concession*, Part B – Research and Development Activities, Version 4.2, July 2008, p. 6.

10 AusIndustry and Australian Taxation Office, *Guide to the R&D Tax Concession*, Part B – Research and Development Activities, Version 4.2, July 2008, p. 14.

11 AusIndustry and Australian Taxation Office, *Guide to the R&D Tax Concession*, Part B – Research and Development Activities, Version 4.2, July 2008, p. 14.

12 AusIndustry and Australian Taxation Office, *Guide to the R&D Tax Concession*, Part B – Research and Development Activities, Version 4.2, July 2008, p. 19.

13 Explanatory Memorandum, para 5.21, p. 122.

> As the new R&D tax incentive is a self assessment regime, the majority of applications to the Board will be registered without formal examination in relation to the activities conducted in the income year in question…[14]

2.20 Guidance, and therefore a degree of certainty, will be provided to companies through the Board's issue of public advice and advisory materials and generalised public findings about activities.[15]

## Consultation undertaken and changes made

2.21 As the following discussion and Table 2.4 shows, there have been a number of public reviews of the scheme.

**Table 2.4: Consultations on R&D assistance**

| | Year | No. of submitters | No. of public hearings |
|---|---|---|---|
| Productivity Commission | 2007 | 157 | 2 |
| House of Representatives Standing Committee on Economics, Finance and Public Administration | 2007 | 50 | 13 |
| Cutler review, *Venturous Australia* | 2008 | >700 | 9 |
| Treasury – consultation paper | 2009 | 197 | |
| Treasury – first exposure draft | 2009 | 131 | |
| Treasury – second exposure draft | 2010 | 55 | |
| Senate Economics Legislation Committee | 2010 | 31 | 2 |

2.22 Following the 2009-10 federal budget announcement, the Government commenced a consultation process in September 2009 when an initial discussion paper was released. The Treasury received 197 submissions in response to the release of the paper. Draft legislation was then exposed for public comment in December 2009, the Government announcing that:

> The draft legislation follows through on [the] commitment to deliver a more generous, more predictable, and less complex tax incentive by replacing the

14 Explanatory Memorandum, p. 123.

15 Explanatory Memorandum, para 5.5, p. 118.

> outdated and complicated R&D Tax Concession…[that would] help boost the competitiveness of the Australian economy.[16]

2.23 Following that round of public comment, a revised exposure draft was released on 31 March 2010.[17] Final adjustments were made before the bill was introduced into the House of Representatives on 13 May 2010.

## Earlier studies

2.24 The precursor of the current scheme was introduced as part of Senator Button's 1985 industry reforms. The programme was cut back in 1996 (Table 2.3) but expanded again in 2001. There have since been a number of studies of the scheme which formed the basis of the bill. The conclusions of the most recent of these are given below.

### *Productivity Commission, 2007*

2.25 A major study by the Productivity Commission in 2007 concluded:

> The extent to which the basic R&D tax concession stimulates additional R&D is low, particularly for large firms…Access to the 125 per cent R&D tax concessions should be restricted to small firms.[18]

2.26 The PC attempted a cost-benefit analysis of the scheme but the results were inconclusive, with the net benefits found to lie in a range of -$234 million to +$231 million.[19]

### *Department of Industry, Tourism and Resources, 2007*

2.27 The Department of Industry, Tourism and Resources issued a report prepared by their Steven Playford, *How R&D Assistance Influences Company Behaviour: A Survey Investigating Behavioural Additionality Effects of the R&D Tax Concession Program*, in 2007. A survey of recipients of the R&D tax concession found that 73 per

16 Senator the Hon Kim Carr and the Hon Wayne Swan MP, New R&D tax credit – exposure draft legislation, Media Release, 18 December 2009.

17 The Treasury, The new research and development tax incentive – Consultation guide – a second exposure draft, March 2010, p. 1.

18 Productivity Commission, *Public Support for Science and Innovation*, March 2007, pp 392 and 403.

19 Productivity Commission, *Public Support for Science and Innovation*, March 2007, p. 390.

cent said that they spent more on R&D as a result of the concession.[20] (Further information about the study is given in Chapter 3.)

### *House of Representatives Economics Committee, 2007*

2.28 A 2007 report by the House Economics Committee concluded:

> There are doubts about the extent to which the existing R&D tax concessions are effectively inducing additional R&D, especially given the reduction in the company tax rate.[21]

### *Cutler review, 2008*

2.29 The report by an expert panel chaired by Dr Terry Cutler, entitled *Venturous Australia*, reviewed the national innovation system. The panel established a specific working group to examine R&D tax concessions.

2.30 The conclusions of the panel on the R&D tax concession were:

> Since its inception the R&D Tax Concession has been subject to several problems. Instead of being tackled directly in the design and funding of the central concession, these problems have typically been tackled by establishing additional programs. While the Concession offers no benefits to firms until they are in tax profit, many of Australia's most innovative firms remain cash strapped and in tax loss for many years…Further, the Concession is accounted for 'below the line' and so is often invisible in company financial decision making….The International and Premium schemes should be terminated and the basic concession increased and recast as a 40 per cent tax credit…For small firms we propose increasing the rate of assistance further…[22]

### *Henry Tax Review, 2010*

2.31 The *Report on Australia's Future Tax System*, generally known for its chair as the Henry Tax Review, comments:

> Where the research and development of a firm generate spillover benefits for others, the social returns from research and development may be greater than the private returns. A tax-preference or government expenditure that appropriately targets such spillovers may therefore be beneficial and improve overall productivity. But where a subsidy is inappropriately

---

20 *How R&D Assistance Influences Company Behaviour: A survey investigating behavioural additionality effects of the R&D Tax Concession Program*, p. 16; http://www.innovation.gov.au/Section/Innovation/Documents/RDbehaviour200720071024131738.pdf.

21 House of Representatives Standing Committee on Economics, Finance and Public Administration, *Australian Manufacturing: Today and Tomorrow*, July 2007, pp 141-2.

22 *Venturous Australia*, 2008, pp xiii-xiv.

> targeted, such incentives can bias the allocation of resources in the economy and actually reduce productivity.[23]

2.32 The *Report*, however, cites the recent reviews of innovation policy as a reason for it not to give detailed consideration to the matter.[24]

***Committee View***

2.33 In summary, the design of the new R&D assistance in the bill has been informed by a number of inquiries with broad consultation.

## Research and development in Australia

2.34 Total R&D expenditure by businesses in Australia was around $14.4 billion in 2007-08. While small business employs about half the workforce, it only does about a tenth of R&D, which is dominated by large firms (Table 2.5)

**Table 2.5: R&D by size of firm, 2007-08 (percentage share)**

| | |
|---|---|
| Employment size | |
| Less than 4 persons | 3 |
| 5 to 19 persons | 8 |
| 20 to 200 persons | 19 |
| Over 200 persons | 70 |

Sources: ABS, *Research and Experimental Development, Business 2007-08*, cat. No. 8104.0, p. 12.

2.35 About a third of R&D expenditure is on labour, with capital expenditure only a very small element (Table 2.6).

**Table 2.6: R&D by type of expenditure, 2007-08 (percentage share)**

| | |
|---|---|
| Labour costs | 34 |
| Other current expenditure | 60 |
| Land and buildings | 1 |
| Other capital expenditure | 4 |

Sources: ABS, *Research and Experimental Development, Business 2007-08*, cat. No. 8104.0, p. 12.

23 *Report on Australia's Future Tax System*, p. 168.

24 *Report on Australia's Future Tax System*, p. 168.

2.36 The majority of R&D comprises experimental development with pure research only accounting for a very small proportion of business R&D (Table 2.7).

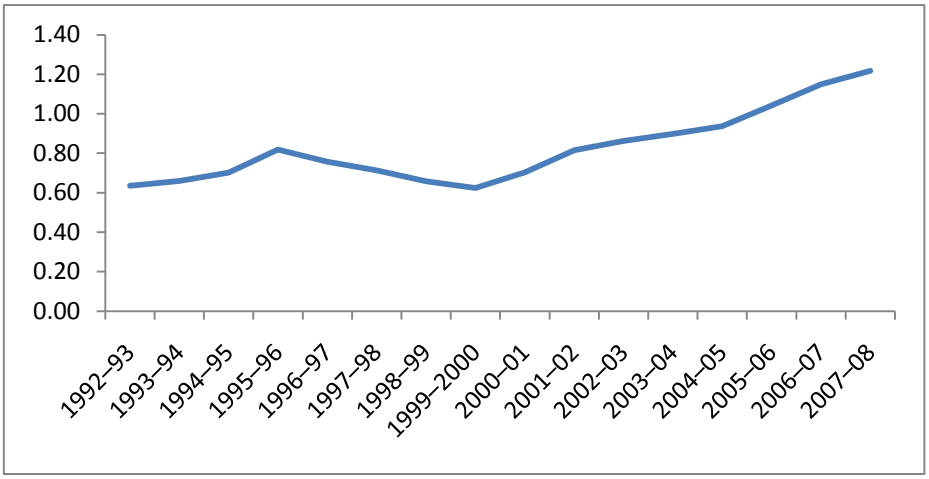
**Table 2.7: R&D by type of expenditure, 2007-08 (percentage share)**

| | |
|---|---|
| Pure basic research | 1 |
| Strategic basic research | 5 |
| Applied research | 32 |
| Experimental development | 62 |

Sources: ABS, *Research and Experimental Development, Business 2007-08*, cat. No. 8104.0, p. 12.

2.37 Business R&D has increased relative to GDP in the past decade (Chart 2.1).

**Chart 2.1: Business R&D: per cent to GDP**




Source: derived from data in ABS 5204.0, *Australian System of National Accounts, 2008-09*; and ABS 8104.0, *Research and Experimental Development, Businesses, 2007-08*.

2.38 Manufacturing, mining and professional services are the largest investors in R&D, both in absolute terms and relative to their contributions to GDP. (Table 2.8)

**Table 2.8: Business R&D by industry, 2007-08**

| | $ bn | % to gross value added |
|---|---|---|
| Manufacturing | 4.3 | 3.9 |
| Mining | 3.3 | 4.1 |
| Professional, scientific and technical services | 2.2 | 3.2 |
| Financial and insurance services | 1.4 | 1.2 |
| Wholesale trade | 0.8 | 1.6 |
| Information media and telecommunications | 0.8 | 2.3 |
| Construction | 0.6 | 0.7 |
| Transport, postal and warehousing | 0.2 | 0.3 |
| Electricity, gas, water and waster services | 0.2 | 0.7 |
| Agriculture, forestry and fishing | 0.1 | 0.4 |
| Administrative and support services | 0.1 | 0.3 |
| Rental, hiring and real estate services | 0.1 | 0.2 |
| Retail trade | 0.1 | 0.1 |
| Other services | 0.1 | 0.3 |
| Health care and social assistance | 0.1 | 0.1 |
| Arts and recreation services | 0.0 | 0.3 |
| Education and training | 0.0 | 0.0 |
| Public administration and safety | 0.0 | 0.0 |
| *Total* | *14.4* | *1.4* |

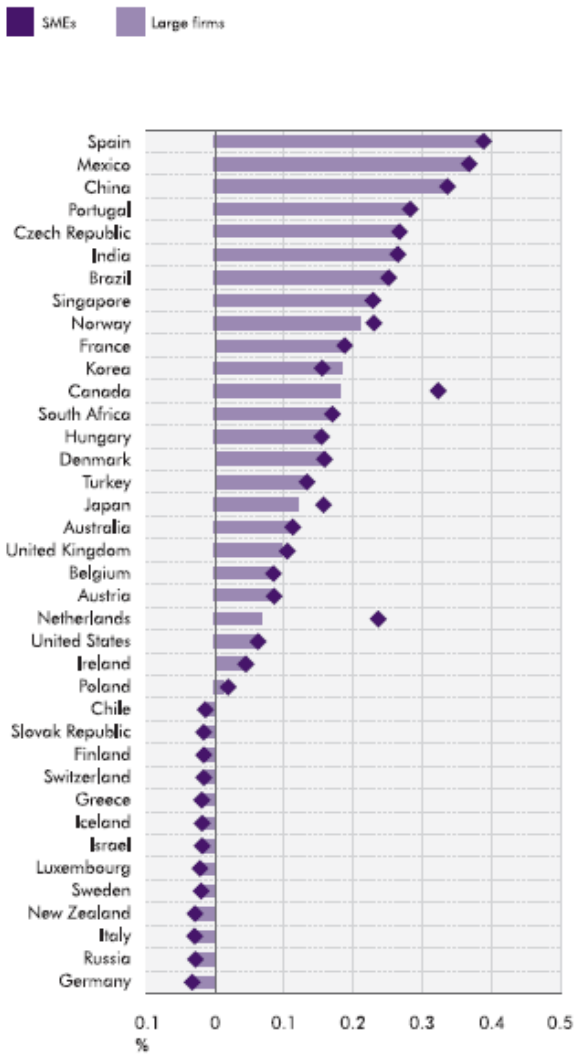
Source: derived from data in ABS 5204.0, *Australian System of National Accounts*, 2008-09; and ABS 8104.0, *Research and Experimental Development, Businesses*, 2007-08.

## International comparisons of R&D assistance

2.39 An international comparison by two Treasury economists suggested that Australia provides relatively generous tax concessions for R&D.[25]

2.40 A recent UK study has Australia ranked around the middle for its support for corporate R&D (Chart 2.2).

**Chart 2.2: Rates of subsidy for R&D, 2007**




Source: Dyson, *Ingenious Britain*, 2010, p. 53.

25 G Davis and G Tunny, 'International comparisons of research and development', *Economic Roundup*, Spring 2005.

2.41 A comparison by KPMG also has Australia currently ranked in the middle of 10 OECD economies, but moving up to first place once the new scheme is in place (see Chapter 8).

2.42 Medicines Australia drew the Committee's attention to a comparative study by a Canadian accountancy firm which suggests the new scheme will place Australia in a favourable spot.[26] The study is summarised in Table 2.9.

**Table 2.9: R&D Tax Incentives – International Comparison**

| | Started | Benefit rate (%) | | Eligible location |
|---|---|---|---|---|
| | | tax deduction | refund rate | |
| Australia-now | 1985 | 125 | | >90% in Aust. |
| Australia-proposed | 2010 | | 40-45 | |
| Austria | 1988 | 125 | | within EU |
| Canada | 1986 | | 20-35 | >90% in Canada |
| France | 1983 | | 30-50 | within EU |
| India | 1997 | 150 | | in India |
| Ireland | 2004 | 20 | and 12.5 | within EU |
| New Zealand | 2008 | | 15 | predominantly NZ |
| South Africa | 2006 | 150 | | in South Africa |
| Spain | 1995 | | 25 | |
| United Kingdom | 2000 | 130-175 | | anywhere |
| United States | 1981 | | 20 | in USA |

Source: based on Scitax Advisory Partners, Overview of Research & Development Tax Incentives in Selected Global Knowledge Economies, April 2010; available at http://www.scitax.com/pdf/Scitax.International.RD.Tax.Credit.Survey.Table.08-April-2010.pdf.

2.43 A recent UK study noted the widespread use of tax incentives for R&D:

> Even countries with low corporation tax have instigated a separate regime to encourage R&D investment. For example, Ireland lowered its

26 Medicines Australia, *Answers to questions on notice*, p. 2.

corporation tax to 12.5% in 1998 but followed that with a new R&D tax credit in 2004. Similarly, Singapore has a twin policy of low corporation tax rates supplemented by an attractive R&D tax credit system. The swell of investment in France highlights how countries with high corporation tax rates can stimulate investment with the intelligent use of tax credits.[27]

27 James Dyson, *Ingenious Britain: Making the UK the Leading High Tech Exporter in Europe*, 2010, pp 52-53.

# Chapter 3

# The Economics of Innovation and R&D

## Innovation and productivity

3.1 The earliest models of economic growth focused on two inputs: labour and capital. When these models were confronted with data, it was soon evident that output grew faster than these inputs. The difference represents productivity improvements which make better use of the inputs.

3.2 As the Nobel prize-winning economist Paul Krugman put it:

> Productivity isn't everything, but in the long run it is almost everything.[1]

3.3 The importance of multi-factor productivity (MFP) growth to the Australian economy was quantified by the chair of the Productivity Commission:

> …over the past four decades MFP growth had 'directly accounted for over one-third of total real income growth in Australia…'[2]

3.4 The main influence that government can have on productivity growth is to:

> …facilitate aggregate productivity growth by maintaining a stable economic environment which fosters competition between firms and flexibility within workplaces. Australian governments also have an important role in capability building by providing firms with access to appropriate public infrastructure and investing in the quality of Australia's workforce..[3]

3.5 Productivity improvements can result from innovation, which has been found to be a key contributor to economic growth:

> Professor Robert Solow, from MIT, was awarded the Nobel Prize in economics in the eighties for demonstrating that technical progress had a far, far greater impact on driving economic prosperity and growth than, indeed, labour and capital together. Technical innovation is absolutely key.[4]

---

1 Cited by House of Representatives Standing Committee on Economics, *Inquiry into Raising the Productivity Growth Rate in the Australian Economy*, April 2010, p. 14.

2 House of Representatives Standing Committee on Economics, *Inquiry into Raising the Productivity Growth Rate in the Australian Economy*, April 2010, p. 19.

3 House of Representatives Standing Committee on Economics, *Inquiry into Raising the Productivity Growth Rate in the Australian Economy*, April 2010, pp iii-iv.

4 Dr Christopher Roberts, Cochlear, *Proof Committee Hansard*, 21 May 2010, p. 11.

> Productivity through innovation will be the key to our future competitiveness.[5]
>
> We have known for several generations that innovation pre-eminently determines our prosperity.[6]
>
> Innovation is critical to Australia's growth and its preparedness for emerging economic, social and environmental challenges.[7]

## R&D and innovation

3.6 R&D is a primary driver of innovation:

> …research and development undertaken by business drives primary improvements in its productivity…[8]
>
> R&D is a major part of the inovation system.[9]

3.7 It is not, however, the only driver:

> Finally, another aspect of innovation which is often overlooked is the non-R&D, non-public research element of innovation and that is organisational innovation—what needs to happen to improve the management of our organisations to achieve productivity growth.[10]
>
> R&D is only one input into the innovation process. Innovation…encompasses a vast array of activities in the economy, including workforce skills, management, venture capital, technology uptake, work re-organisation and R&D….measures of R&D and innovation are not strongly correlated.[11]

## International comparison of Australia's R&D

3.8 The Australian Bureau of Statistics defines R&D, in accordance with the OECD standard, as:

> …creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications.[12]

---

5 Professor Roy Green, *Proof Committee Hansard*, 21 May 2010, p. 18.

6 *Venturous Australia*, 2008, p. vii.

7 Productivity Commission, *Public Support for Science and Innovation*, 2007, p. 7.

8 Mr Innes Willox, Australian Industry Group, *Proof Committee Hansard*, 21 May 2010, p. 2.

9 Productivity Commission, *Public Support for Science and Innovation*, 2007, p. xvii.

10 Professor Roy Green, *Proof Committee Hansard*, 21 May 2010, p. 18.

11 G Davis and G Tunny, 'International comparisons of research and development', *Economic Roundup*, Spring 2005, pp 74-77.

12 ABS, *Research and Experimental Development, Businesses 2007–08*, cat. no. 8104.0, p. 32.

3.9 In R&D spending relative to GDP, Australia ranks around the middle of the OECD economies (Table 3.1). Perceptions of its spending on R&D place it lower and legislation is not seen as supportive (Table 3.2).

3.10 There is debate about whether this is too little. Michael Johnson Associates submitted that business expenditure on R&D 'has remained too low in Australia compared to our OECD neighbours'.[13]

3.11 The Australian Industry Group was concerned:

> Australia continues to lag behind the OECD average on business expenditure on research and development.[14]

3.12 The Committee heard concerns that Australia's share of global R&D is dropping:

> We know that R&D globally is growing but we no longer are taking as much share of the global R&D as we were formerly. That investment, as we have said, is going to India, China and other countries. [15]

3.13 The Productivity Commission is more sanguine:

> Real R&D in Australia has been growing quite strongly since the mid-1970s but growth has been particularly strong in the 2000s…[16]

3.14 A number of countries have targets for overall R&D (business plus government and higher education). These targets are mostly 3-4 per cent of GDP, well over Australia's current level of 2 per cent.[17]

---

13 Michael Johnson Associates, *Submission 5*, Attachment B, p. 7.

14 Mr Innes Willox, Australian Industry Group, *Proof Committee Hansard*, 21 May 2010, p. 2.

15 Ms Deborah Monk, Medicines Australia, *Proof Committee Hansard*, 20 May 2010, p. 9.

16 Cited by House of Representatives Standing Committee on Economics, *Inquiry into Raising the Productivity Growth Rate in the Australian Economy*, April 2010, p. 49.

17 House of Representatives Standing Committee on Economics, Finance and Public Administration, *Australian Manufacturing: Today and Tomorrow*, July 2007, pp 140; ABS, *Research and Experimental Development, All Sector Summary, Australia, 2006-07*, cat. no. 8112.0.

**Table 3.1: Business R&D: International Comparison**

| | Business spending on R&D | | Business enterprise researchers |
|---|---|---|---|
| | % to GDP 2007-08 | % to value added in industry 2006 | per thousand employed in industry, 2006 |
| Japan | 2.7 | 3.7 | 11 |
| Sweden | 2.7 | 4.6 | 13 |
| Korea | 2.7 | 3.6 | 8 |
| Finland | 2.5 | 4.0 | 13 |
| United States of America | 1.9 | 3.0 | 11 |
| Germany | 1.8 | 2.8 | 6 |
| France | 1.3 | 2.3 | 6 |
| Singapore | | 2.0 | 7 |
| **Australia** | **1.3** | **1.7** | **3** |
| United Kingdom | 1.2 | 1.7 | 4 |
| Canada | 1.1 | 1.6 | 7 |
| Netherlands | 1.0 | 1.6 | 5 |
| Norway | 0.9 | 1.2 | 7 |
| Spain | 0.7 | 1.0 | 3 |
| Italy | 0.6 | 0.9 | 2 |
| New Zealand | 0.5 | | 3 |
| Total OECD | 1.6 | 2.4 | 6 |

Sources: ABS, *Research and Experimental Development, Business 2007-08*, cat. No. 8104.0; OECD, *Main Science and Technology Indicators*, 2009/2.

**Table 3.2: Global opinion of business research and development (rankings)**

| | Companies spend heavily on R&D relative to international peers, 2007 | Scientific research is supported by legislation, 2008 |
|---|---|---|
| Switzerland | 1 | 2 |
| United States | 2 | 7 |
| Japan | 3 | 17 |
| Germany | 4 | 10 |
| Sweden | 5 | 5 |
| Korea | 6 | 36 |
| Finland | 9 | 11 |
| Singapore | 10 | 1 |
| United Kingdom | 12 | 25 |
| Netherlands | 13 | 15 |
| France | 17 | 18 |
| Norway | 19 | 23 |
| Canada | 21 | 3 |
| Hong Kong | 23 | 28 |
| **Australia** | **25** | **13** |
| New Zealand | 38 | 12 |
| Spain | 48 | 40 |

Sources: World Economic Forum; IMD *World Competitiveness Yearbook 2008*.

3.15 On the other hand, there are both statistical and conceptual arguments that Australia spending a smaller proportion of GDP on R&D than other countries may not constitute a problem at all.

3.16 A study by Treasury economists pointed out:

> While business expenditure on R&D in Australia appears relatively low, this is, to a significant extent, a result of Australia's industry structure.[18]

3.17 The Productivity Commission reached a similar conclusion:

> After adjusting for Australia's differences in industry composition (which affects R&D intensity) business R&D intensity is now 3rd amongst 20 key OECD economies…[19]

3.18 Compared to other high-income countries Australia has a smaller share of R&D-intensive industries such as advanced manufacturing (eg aerospace and pharmaceuticals). The Treasury economists cite another study which suggests that this is part of an international pattern:

> A country's R&D intensity is largely a reflection of its industrial structure. Countries with high R&D intensities have a high share of their business R&D and a significant part of their economic output in high-technology sectors. In Finland, Germany, Japan, Switzerland and the United States, these industries account for three-quarters or more of business-performed R&D. In low R&D-intensity countries, such as Norway and Australia, high-technology industries (and medium-high technology industries) account for less than 40 per cent — a fact that can be attributed to the natural resource endowments that these countries enjoy that affects their industrial structure.[20]

3.19 The conceptual argument is put by the Productivity Commission:

> …comparisons of input ratios are usually a conceptually unsound basis for assessing optimal investment in R&D. Nothing says that 'high' input ratios are necessarily better than 'low' ones, since it is possible to both under- and over-invest in R&D. For most other inputs – such as labour or capital – the usual interest is not in maximising inputs per output, but rather maximising its inverse (output per input or productivity).[21]

3.20 On this argument, Australia is performing well:

---

18 G Davis and G Tunny, 'International comparisons of research and development', *Economic Roundup*, Spring 2005, p. 63.

19 Cited by House of Representatives Standing Committee on Economics, *Inquiry into Raising the Productivity Growth Rate in the Australian Economy*, April 2010, p. 49.

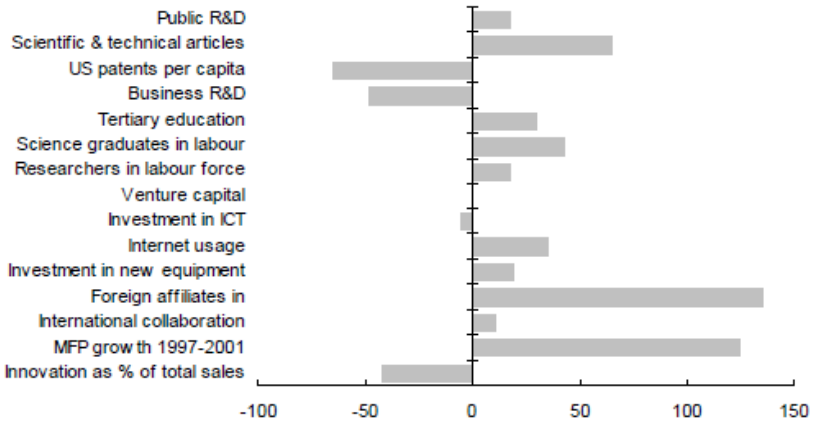
20 J Sheehan and A Wyckoff, 'Targeting R&D: economic policy implications of increasing R&D spending', *STI Working Papers*, no. 2003/8, OECD: Paris.

21 Productivity Commission, *Public Support for Science and Innovation*, 2007, p. 43.

> Australia has a high R&D productivity [which means that] we get a lot of output for less R&D.[22]

3.21 Another reason for a more optimistic view is that, as argued above, R&D is valued for its role in stimulating innovation, and Australia's innovation performance is better than its business R&D would imply (Chart 3.1).

**Chart 3.1: Australia's innovation performance compared with OECD average**
(percentage difference)




Source: G Davis and G Tunny, 'International comparisons of research and development', *Economic Roundup*, Spring 2005, p. 78.

3.22 Distinguishing between components of R&D, Treasury economists found that Australian businesses do similar amounts of 'basic research' to their international peers, less 'applied research' and much less 'experimental development'.[23] As a House Economics Committee report said:

> This view that Australians are better at inventing than commercialising agrees with anecdotal evidence. Australians invented the atomic absorption spectrophotometer, the black box flight recorder and the orbital engine but all were commercialised overseas.[24]

3.23 Some submissions made a similar point:

---

22 Mr Gary Banks, Chair, Productivity Commission, cited in House of Representatives Standing Committee on Science and Innovation, *Riding the Innovation Wave: the Case for Increasing Business Investment in R&D*, June 2003, p. 12.

23 G Davis and G Tunny, 'International comparisons of research and development', *Economic Roundup*, Spring 2005.

24 House of Representatives Standing Committee on Economics, Finance and Public Administration, *Australian Manufacturing: Today and Tomorrow*, July 2007, pp 141-2.

> This "Experimental Development" phase of R&D has long been recognised as the step that Australia is poor at…[25]
>
> Australia is great at inventing. Commercialising new ideas is where the assistance of the tax credit is vital to improving its success rate and productivity.[26]

## Australia as a base for R&D

3.24 The Committee heard that Australia's advantages as a venue for R&D are being eroded:

> Australia is home to some of the world's best medical researchers and healthcare professionals. We know that it has world-class research infrastructure, a stable socioeconomic environment, a strong intellectual property system and an efficient regulatory system…But these factors alone are no longer sufficient to stimulate investment growth. There are several reasons for this. The most important among them is the rapid transformation of developing nations in Asia, South America and Eastern Europe as viable destinations for long-term investment in research and development…We all know that India and China have made incredible progress in the past 10 years, not only in terms of their economic development but also as locations for clinical research. We know that countries like Poland, Hungary and even Russia have rapidly emerged from the shadows of the Cold War to become vibrant and progressive members of the world community. While we may marvel at the speed of their success, we should also be worried about the impact this has on Australia, and be particularly worried because, while Australia remains an attractive location for R&D investment for our industry, other countries are now looking even more attractive. Australia is already beginning to attract less biopharmaceutical industry investment in clinical research.[27]

3.25 There may be benefits in keeping R&D within Australia:

> We are assisting to keep those brightest and best minds here in Australia.[28]

---

25 Michael Johnson Associates, *Submission 5*, Attachment B, p. 4.

26 KPMG, *Submission 9*, p. 13.

27 Dr Brendan Shaw, Chief Executive Officer, Medicines Australia, *Proof Committee Hansard*, 20 May 2010, p. 2.

28 Ms Deborah Monk, Medicines Australia, *Proof Committee Hansard*, 20 May 2010, p. 8.

## Alternative views on R&D assistance

3.26 A recent survey concluded:

> …few countries have undertaken rigorous cause and effect modelling of public policies designed to boost productivity growth.[29]

3.27 As an example of conflicting views, two UK studies reached differing conclusions about the effectiveness of R&D tax incentives:

> Our results tentatively suggest that government innovation policy should focus on direct spending on innovation, specifically funding for research councils, rather than through tax incentives to firms.[30]

> We find evidence that tax incentives are effective in increasing R&D intensity…a 10% fall in the cost of R&D stimulates just over a 1% rise in the level of R&D in the short-run, and just under a 10% rise in R&D in the long run.[31]

3.28 An international comparison by two Treasury economists did not find any evidence that companies in countries with more generous tax concessions do more R&D.[32] Interpreting this lack of correlation is problematic. It could be that R&D assistance is just ineffective in raising R&D. Alternatively, the causation could be running the other way: countries where R&D is low spend more than countries where it is already high, and this inverse correlation offsets any positive correlation.

3.29 One body which did conduct an analysis of the role of R&D tax concessions is the Department of Industry, Tourism and Resources. Their 2007 study concluded:

> The R&D Tax Concession has a strong overall impact on firm behaviour both *during* the project and *after* its completion. There were few firms surveyed that reported little or no change in behaviour as a result of using the R&D Tax Concession, with 86% of firms changing behaviour *during* their R&D project and 98% of firms reporting behavioural change *after* the project…As many as 4,403 firms have a 'stronger understanding of the benefits to the firm of R&D and commercialisation', 4,186 have an 'enhanced commitment to R&D including through increased R&D resources' and that for 3,856 firms, the projects proceeded more quickly due to the R&D Tax Concession…An estimate of the economic impact from changes in behaviour induced by the R&D Tax Concession was in the

---

29 House of Representatives Standing Committee on Economics, *Inquiry into Raising the Productivity Growth Rate in the Australian Economy*, April 2010, p. 3.

30 J Haskell and G Wallis, 'Public support for innovation, intangible investment and productivity growth in the UK market sector', *Imperial College Business School discussion papers*, no. 2010/01, February 2010, p. 21.

31 N Bloom, R Griffith and J van Reenen, 'Do R&D tax credits work? Evidence from a panel of countries 1979-1997', *Journal of Public Economics*, vol 85, issue 1, July 2002, p. 1.

32 G Davis and G Tunny, 'International comparisons of research and development', *Economic Roundup*, Spring 2005, p. 73.

> range of $150m to $300m in 2004-05…These findings suggest that the impact of programs may become embedded in the participating firm's commercialisation processes and increases its capacity to effectively undertake R&D.[33]

### *Committee view*

3.30 The Committee notes that Australia's R&D performance, allowing for its industrial structure, is comparable to its peers. The Committee believes there is potential for R&D to support growth in the economy through the better targeting of assistance and changes to intellectual property as proposed by this bill.

33 Department of Industry, Tourism and Resources, *How R&D Assistance Influences Company Behaviour*, July 2007.

# Chapter 4

# Criteria for Evaluating R&D Assistance

4.1 Two key concepts in evaluating schemes to support R&D are *public spillover benefits* and *additionality*.

4.2 These concepts are reflected in the objects clause in the bill, which explains that the goal is:

> …to encourage industry to conduct research and development activities that might otherwise not be conducted because of an uncertain return from the activities, in cases where the knowledge gained is likely to benefit the wider Australian economy.[1]

## Public spillover benefits

4.3 As the EM notes, 'innovation is recognised internationally as an important driver of economic growth'. But this is not in itself justification for tax incentives or other taxpayer support for it.

4.4 Companies will engage in R&D that they expect will generate a good return in terms of increasing their profits. Much of this R&D will result in incremental improvements in their goods, reductions in their manufacturing costs, or an addition to their product range such as a new flavour. But there is no reason for the taxpayer to subsidise such activity as the benefits will accrue totally and solely to the companies involved.

4.5 The case for taxpayer subsidy only arises when a company's R&D leads to benefits that partly accrue to those outside the company and for which the company is not rewarded; a 'spillover benefit' (or 'positive externality').[2]

4.6 The idea is much like that expressed by Thomas Jefferson:

> He who receives ideas from me, receives instruction himself without lessening mine; as he who lights his taper at mine receives light without darkening me.[3]

---

1 Bill, p. 5; amending subdivision 355-A.

2 Among prominent economists to have developed this idea of spillovers are Alfred Marshall, Paul Romer and Kenneth Arrow.

3 Letter to Isaac McPherson, 1813.

4.7 The *social* benefits of the R&D then exceed the *private* benefits. This sort of R&D is likely to be undersupplied as for some projects the private costs will exceed the private benefits but be less than the social benefits. A payment (or tax concession) to the company to encourage its R&D may then make everyone better off.

4.8 The idea of spillovers is important in the 'new growth theory' in the economics literature. A survey article concluded:

> …the overall impression remains that R&D spillovers are both prevalent and important.[4]

4.9 Medicines Australia gave an example of a spillover benefit from their R&D that accrues to the community rather than to other companies:

> …it provides early access to the Australian community to new medicines through being in a clinical trial. If we were not doing those clinical trials here with new medicines, the community would have to wait until that medicine is registered and marketed in Australia. Also, through running clinical trials for thousands of patients around Australia every day the pharmaceutical company is paying for their health costs by being in a clinical trial…[5]

4.10 The Australian Industries Group supports the spillover principle:

> Ai Group agrees that the case for public support of business research and development activity arises because of the direct and indirect spillovers that arise when the full value that flows from this expenditure is not captured by the businesses making the expenditures but part of which flow to other parties. Without public support, the total quantity of business expenditure undertaken would be less than the socially optimum level.[6]

4.11 The Department of Innovation, Industry, Science and Research referred to spillover as the justification for support at Estimates:

> There are very substantial benefits that we have talked about in actually doing the R&D. There are very substantial spillovers from doing that, and that is what gives an economic justification for providing support to it.[7]

---

4 Zvi Griliches, 'The search for R&D spillovers', *Scandinavian Journal of Economics*, no 94, 1992, p. 29.

5 Ms Deborah Monk, Medicines Australia, *Proof Committee Hansard,* 20 May 2010, p. 8.

6 Australian Industry Group, *Submission 19*, pp 3-4. Similar comments were made by their representative Mr Innes Willox, *Proof Committee Hansard*, 21 May 2010, p. 2.

7 Mr Ken Pettifer, Head of Innovation Division, Department of Innovation, Industry, Science and Research, *Proof Committee Estimates Hansard*, 31 May 2010, p. 55.

## Additionality

4.12 Another criteria for an efficient incentive scheme is 'additionality'. A good scheme will be focused on generating additional R&D rather than just making payments to companies for R&D that they would have undertaken anyway.

4.13 The concept of additionality is accepted by most experts:

> By providing an incentive, the government stimulates a level of expenditure beyond that which the primary businesses would otherwise undertake...[8]
>
> Additionality is an important concept in public finance, addressing the issue of whether public support is resulting in new activity rather than substituting for private support that would have occurred in the absence of the intervention.[9]
>
> Thus, spillovers are only a relevant rationale for public support when subsidies change the private decision about whether to proceed with an investment.[10]

4.14 The Minister for Innovation, Industry, Science and Research explained that additionality is an important reason for the changes to the scheme incorporated in the bill:

> I met with some senior executives of a very large corporation and they explained to me, 'We do not make our decisions based on whether or not we are going to get a tax benefit. We make our decisions on a business case, given the scale of the projects that are involved. Once we have made the decision, we send the claim down to our accountants to clean up and submit to the government for a benefit.' Under the present regime, why wouldn't you? What we are trying to do is directly affect the way in which decisions are made. That is why we have tailored it to be of direct benefit to those companies where the sort of benefit that we can provide through the scheme will make a substantial difference to the companies as to whether or not the work is undertaken. That is the philosophy behind this. We want to make a big difference, we want to change behaviour and we wanted to change attitudes. The judgment call that I have made, based on the evidence that I have seen, is that this is the sort of thing that can affect the way companies do business.[11]

4.15 One of the few to argue against it is a major beneficiary of the current scheme, the advisory firm Michael Johnson Associates (MJA):

---

8 Mr Innes Willox, Australian Industry Group, *Proof Committee Hansard*, 21 May 2010, p. 2.

9 L Georghiou and B Clarysse, 'Introduction and synthesis', in *Government R&D Funding and Company Behaviour*, OECD, 2006, p. 11.

10 Productivity Commission, *Public Support for Science and Innovation*, 2007, p. 65.

11 Hon Kim Carr, Minister for Innovation, Industry, Science and Research, *Proof Committee Estimates Hansard*, 31 May 2010, p. 65.

> I think one of the great concerns about the idea of additionality is that people keep focusing on: 'Prove that we are only funding things that would never have been done.' That does not make sense to me. What the credit can do is help reduce the effective cost of the R&D that companies are doing—the priorities, not the marginal projects, that they should be doing.[12]

4.16 MJA did not explain why they thought taxpayers should make this gift to companies which does not result in any additional R&D.

## Assistance to larger versus small companies

4.17 Based on these two criteria it is generally thought that assistance to smaller companies is more likely to be preferable to assistance to larger companies. Many original ideas start out in small start-ups.

4.18 Professor Green commented:

> I do support the move to something like dominant purpose and also that ventures should be innovative and risky. I think that is essential to getting those smaller companies out on the cutting edge that wish to participate.[13]

4.19 He added:

> I would certainly be one of those who would advocate that some of those larger companies that have accessed resources on a habitual basis in the past may have to lose some of that in order that newer companies with newer ideas can access it. I think that is just a point of principle.[14]

4.20 A recent UK study argued that R&D assistance there should be:

> …refocused to those companies where the barriers to a sustained R&D programme are greatest and the potential spillovers to the rest of the economy are greatest. That means high tech companies, small businesses and start-ups.[15]

4.21 The Department of Innovation, Industry, Science and Research has referred to other analysis:

> The OECD has also done a lot of work on where the greatest benefits from research and development incentives are based. Their research also points to the fact that greater benefits are derived from providing incentives to

---

12 Mr Kris Gale, Managing Director, Michael Johnson Associates, *Proof Committee Hansard*, 20 May 2010, p. 28.

13 Professor Roy Green, *Proof Committee Hansard*, 21 May 2010, p. 19.

14 Professor Roy Green, *Proof Committee Hansard*, 21 May 2010, p. 22.

15 James Dyson, *Ingenious Britain: Making the UK the Leading High Tech Exporter in Europe*, 2010, p. 54; cited by Professor Roy Green, *Proof Committee Hansard*, 21 May 2010, p. 19.

> smaller businesses. That is at the heart of where our policy of having a dual-rate system with a higher rate for small to medium enterprises comes from.[16]

4.22 A tax partner from Ernst & Young remarked:

> …once companies are profitable or are earning revenue out of their R&D endeavours, there should be some limitations on the amount of assistance government is providing. Companies need government intervention most in the formative stages of any product or process development.[17]

4.23 Again a minority opposing view was expressed by Michael Johnson Associates:

> To say that innovative companies are generally SMEs is an assertion. I have not seen the evidence.[18]

4.24 Even if large and small companies were equally innovative in their ideas, it is much easier for large established companies with large retained earnings and easy access to finance to fund their ideas. It is much less of a gamble to undertake a risky project if it only represents a small proportion of a large diversified company's capital than if it puts at risk a large proportion of a small company's capital. There are therefore more good ideas that are not undertaken due to financial constraints by small companies and so assisting them is more likely to result in *additional* innovation.

4.25 Another important difference between large and small companies is that new start-ups typically do not make profits in their early years so that they cannot benefit from tax concessions. This point was emphasised to the Committee by AusBiotech:

> Cognisant of the unique business model required by biotechnology, where significant funds are required often over many years and up-front before any return can be realised, the tax credit, especially the refundable credit, is vital if innovations and the start-up biotechnology industry are to thrive in Australia…Start-up innovation companies applauded the government's policy announcement to move from the tax concession, which is not working for the industry as a whole, to the tax credit that will provide a much-needed lifeline.[19]

4.26 The Cutler Review concluded that tax concessions appeared to influence the behaviour of small companies more than large companies:

---

16 Mr Weber, Department of Innovation, Industry, Science and Research, *Proof Committee Estimates Hansard*, 31 May 2010, p. 65.

17 Mr Robin Parsons, Partner, Indirect Tax, Ernst & Young, *Proof Committee Hansard*, 20 May 2010, p. 14.

18 Mr Kris Gale, Managing Director, Michael Johnson Associates, *Proof Committee Hansard*, 20 May 2010, p. 31.

19 AusBiotech, *Submission 1*, pp 1-2.

> The inducement effects of a concession are likely to differ as between small technology based firms, and larger more mature firms. At one consultation with larger companies, 82 per cent of those present indicated, when polled, that the incentive value was marginal or none, and no one said the 175 per cent incremental premium scheme influenced their R&D activity…At the other end of the spectrum, the introduction of the Tax Offset element of the Concession for small tax loss firms has been highly successful…[20]

4.27 Treasury emphasised smaller firms when describing the aims of the bill:

> Its overarching aims are to increase support for all R&D companies, to encourage more small and medium sized companies to do R&D… The tax incentive is expected to induce more R&D for a number of reasons. It tilts support to small and medium businesses…[21]

## Assistance for research versus development

4.28 It is more likely that research will lead to spillover benefits than development. And the more 'experimental' is the research, the more likely it will lead to insights with applications outside the business of the company undertaking it. The original idea with wider ramifications is more likely to arise from basic research than process improvements.

4.29 This view seems widely supported:

> …there are potential benefits from public support for more basic or strategic research, where the returns can be difficult for an organisation to adequately appropriate.[22]
>
> …one might expect few spillovers from applied work, that is, putting a particular idea into productive form.[23]
>
> The strongest case for public support based on spillovers occurs for basic research…[24]
>
> Radical innovation is also linked with spillovers much more strongly than incremental innovation.[25]

---

20 *Venturous Australia*, 2008, p. 104.

21 Mr Paul McCullough, General Manager, Business Tax Division, *Proof Committee Hansard*, 20 May 2010, p. 46.

22 Productivity Commission, Cited by House of Representatives Standing Committee on Economics, *Inquiry into Raising the Productivity Growth Rate in the Australian Economy*, April 2010, p. 127.

23 J Haskell and G Wallis, 'Public support for innovation, intangible investment and productivity growth in the UK market sector', *Imperial College Business School discussion papers*, no. 2010/01, February 2010, p. 21.

24 Productivity Commission, *Public Support for Science and Innovation*, March 2007, p. 73.

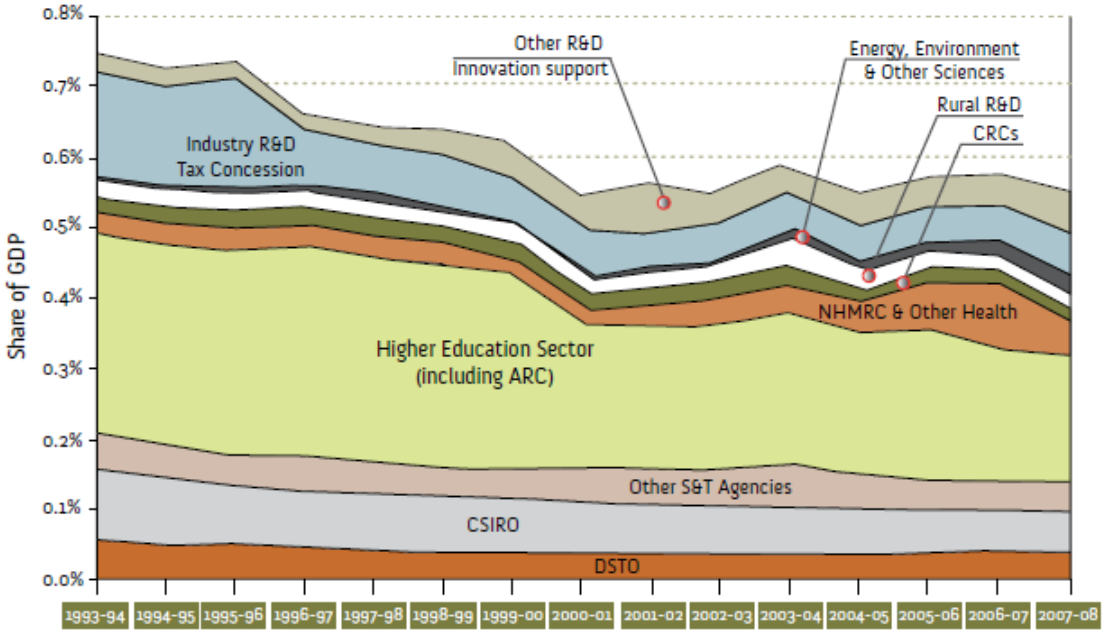
4.30 There are some who question this:

> No evidence has been presented throughout this entire policy debate that the public subsidy for new knowledge creation will yield greater economic benefit than the subsidy of the application of that new knowledge to the creation of new products, processes, services and devices. I believe that this premise is fundamentally flawed.[26]

## Grants versus tax concessions

4.31 R&D tax concessions are one form of government support for R&D. Alternatives include the direct funding of research work by universities and organisations such as CSIRO; and grants to companies, which could take the form of profit-contingent loans.[27] The tax concessions are placed within the context of total support for R&D (interpreted broadly) in Chart 4.1.

**Chart 4.1: Australian Government Expenditure on Science & Innovation % to GDP**




Source: *Venturous Australia*, 2008, p. viii.

25 CSIRO, cited in Productivity Commission, *Public Support for Science and Innovation*, March 2007, p. 384.

26 Mr Serge Duchini, Partner, Deloittes, *Proof Committee Hansard*, 21 May 2010, p. 33.

27 Another form of support without a budgetary cost is allowing companies monopoly rights (patents) for limited periods over innovation arising from their R&D.

4.32 An important difference between these various forms of assistance is the extent to which the projects supported are those chosen by the companies themselves or those selected by governments. As the House Economics Committee put it:

> Unlike grants, tax concessions apply to all R&D, regardless of its quality. Views differ about whether this is a good or bad thing. Those most sceptical about the ability of governments or their advisers to 'pick winners', or judge which R&D is 'high quality', laud supporting that R&D which companies themselves see as most beneficial. They characterise the tax concession as 'market driven'. Alternatively, others view such tax concessions as 'blunt measures with no quality control' and argue that firms are most likely to choose R&D that is of specific benefit to themselves rather than to the broader economy. They also warn that some of any apparent increase in R&D following the introduction of tax concessions may reflect accountants (mis)classifying more expenditure as R&D, rather than a true increase in research activity. They advocate requiring firms to compete for more targeted funding of R&D likely to have wider benefits.[28]

*Committee view*

4.33 While the Committee sees merits in targeted loans with profit-contingent repayments as either a supplement or alternative to tax concessions, it is not directly related to the bill so is not considered further.

28 House of Representatives Standing Committee on Economics, Finance and Public Administration, *Australian Manufacturing: Today and Tomorrow*, July 2007, pp 153-4.

# Chapter 5

# Eligible Expenditure

## Introduction

5.1 In their 2007 report, the Productivity Commission identified three types of R&D when they reviewed the role of public support for innovation:

- basic research – basic research is the experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view although it is this type of research that is likely to have large spillover benefits;
- applied research – applied research is original investigation undertaken in order to acquire new knowledge, it is however directed primarily towards a specific practical aim or objective; and
- experimental development – experimental development is systematic work, drawing on existing knowledge gained from research and/or practical experience, which is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed.[1]

5.2 Under the new R&D tax incentive, eligible entities will be entitled to a tax offset for expenditure on eligible R&D activities and for the decline in the value of depreciating assets used for eligible R&D activities.[2] The rules governing the tax incentive will be set out in new Division 355 of the ITAA 1997.

5.3 The operation of the new provisions relies on the concepts of 'R&D entities' and 'R&D activities' – it being R&D entities that qualify for a tax offset in respect of their R&D activities.[3]

## What are 'R&D entities'?

5.4 'R&D entities' continue to be defined as being:

- a body corporate (ie a company) incorporated under an Australian law;
- a body corporate incorporated under a foreign law that is an Australian resident; and

---

1 Productivity Commission, *Public Support for Science and Innovation*, 9 March 2007, p. 8.

2 Explanatory Memorandum, Tax Laws Amendment (Research and Development) Bill 2010, para 1.1, p. 11.

3 Proposed sections 355-1, 355-20 and 355-35, Tax Laws Amendment (Research and Development) Bill 2010, pp 4-7.

- a body corporate incorporated under a foreign law that is a resident of a foreign country[4] but carries on business in Australia through a permanent establishment.

5.5 Companies that meet the definition of an R&D entity will, in principle, be eligible to claim the new tax offset. They will however need to have notional deductions[5] for R&D expenditure of at least $20,000.[6] This requirement of a minimum threshold is also a feature of the existing R&D tax concession. It does not apply however in circumstances involving R&D expenditure of a Research Service Provider or contributions to a Cooperative Research Centre.[7]

5.6 The definition of 'R&D entity' did not attract attention or comment throughout the course of the Committee's inquiry.

## What are 'R&D activities'?

5.7 R&D activities are defined in section 355-20 of the bill as being 'core' R&D activities or 'supporting' R&D activities. These concepts are further clarified in sections 355-25 and 355-30, yet, according to the explanatory memorandum are not new:

> The new R&D tax incentive retains some elements of the framework for R&D activities that currently applies… (For example, the distinction between core and supporting R&D activities continues.) However, these elements have been refined so that the new scheme better aligns with the rationale for providing a general subsidy for business R&D…[8]

5.8 Although the explanatory memorandum suggests that the concepts of 'core' and 'supporting' R&D activities are not new, the redrafting of the definitions received the majority of attention in submissions received and at the public hearings held. The general consensus was that the re-written definitions will reduce the number of firms eligible for the tax incentive as they amount to a 'wholesale re-write' of the provisions.

> When the Cutler report came out, we were very receptive to what was in it. Basically it said that there are some areas where there was a case of misuse

---

4 And that foreign country has a double tax agreement with Australia.

5 Notional deductions — a notional deduction is an amount that an R&D entity would otherwise deduct for business expenditure if they were not eligible for the R&D tax offset.

6 Explanatory Memorandum, para 3.10, p. 51.

7 Explanatory Memorandum, para 1.28, p. 15. An R&D entity can obtain an offset regardless of the level of its R&D deductions for expenditure incurred to a Research Service Provider or for expenditure incurred as a monetary contribution to a Cooperative Research Centre. An RSP provides services in one or more specified research fields to registered R&D entities. A CRC is an organisation formed through medium to long term collaborative partnerships between publicly funded researchers and end users. Source: Explanatory Memorandum, pp 59 and 98. RSPs and CRCs are not covered in detail in the Committee's report.

8 Explanatory Memorandum, para 2.2, p. 19.

> and that the definition of R&D should be refined to address those areas of misuse. We think that is a sensible thing to do as ongoing maintenance of the tax act. But they did not recommend a wholesale rewrite of the definition of expenditure eligible for R&D, nor was there an indication in the government's media release and announcements in the budget last year, when it indicated that it was proceeding with some changes, that it was going to redefine eligible R&D.[9]
>
> The changes to the definitions of R&D are genuinely problematic in terms of various industries—for example, in manufacturing, the importance of the development side versus the research side in manufacturing. You end up with unintended consequences, such as the consequences of complexity and the like from the dominant purpose test, and I am not sure why.[10]
>
> The proposals stem from the Cutler Report which seemed to recommend the support of the iconic R&D Tax Concession with increased support levels for SMEs. It also proposed to change from a tax deduction to a tax credit and cut out the 175% premium…nevertheless, those aims could surely be achieved in a much simpler manner than by a wholesale change to the R&D Tax Concession and without the major increase in complexity currently proposed.[11]

5.9 As indicated, those who commented on the changes, mostly beneficiaries of the existing scheme, were generally critical of the redrafted definitions contending that the existing definitions did not require amendment.[12]

5.10 There was general consensus around some aspects of the bill. For example, there was broad support for abolishing the complex 175 per cent premium concession, which perversely rewards volatile R&D and is of no assistance to new firms:

> The removal of the 175 per cent concession, which was complex to model, and almost impossible to model in advance for large corporate groups, is also welcome; I think it is good policy.[13]
>
> The 175 per cent incremental did not make sense to them and, beyond the simple case, it was a complicated after-the-fact tax calculation where windfalls occurred because of corporate merger and acquisition activity. We think it was underpowered at 7½ cents under the 125 and overcomplicated because of the premium. We have got a high base rate regime and that is great. We have got rid of the premium and we think that is excellent as well… We have consulted every day in their 175 per cent

---

9 Dr Peter Burn, Director, Public Policy, Australian Industry Group, *Proof Committee Hansard*, 21 May 2010, p. 7.

10 Dr Chris Roberts, Chief Executive Officer, Cochlear, *Proof Committee Hansard*, 21 May 2010, p. 11.

11 Mr Geoff Stearn, GSM Consulting, *Submission 7*, p. 1.

12 NOAH Consulting, *Submission 8*, p. 2.

13 Mr Serge Duchini, Partner and Research and Development and Tax Incentives Practice Leader, Deloitte, *Proof Committee Hansard*, 21 May 2010, p. 32.

> incremental premium. We generate fees help for companies every day, and we have advocated for its closure since before it began.[14]

5.11 Some concerns were raised, however, in relation to the operation of the objects clause together with the redrafted definitions of core and supporting activities.

### *The objects clause*

5.12 The object of Division 355 will be set out in section 355-5 and will state:

> (1) the object of this Division is to encourage industry to conduct research and development activities that might otherwise not be conducted because of an uncertain return from the activities, in cases where the knowledge gained is likely to benefit the wider Australian economy.
>
> (2) This object is to be achieved by providing a tax incentive for industry to conduct, in a scientific way, experimental activities for the purpose of generating new knowledge or information in either a general or applied form.[15]

5.13 Numerous submitters to the inquiry raised concern with the new objects clause on the basis that its reference to activities that 'might not otherwise be conducted' and the requirement to 'generate new knowledge or information' limit the definitions of core and supporting R&D and will therefore affect their ability to access tax incentives for R&D expenditure.

> The objects clause of the bill…omits the second critical element in the Frascati approach—'the use of this knowledge to devise new applications'. The narrow coverage of the objects clause suggests to us that the government intends to pare back the role of the R&D tax incentive to fund, almost exclusively, research. It does not intend to include much of what business R&D is about—namely the development of existing knowledge to 'devise new applications'. Instead the government intends that the R&D tax incentive will apply to activities conducted for the purpose of producing new knowledge.[16]
>
> The objects clause in the draft legislation definitely narrows the definition and has a much greater emphasis on the R rather than the D, compared to the existing situation.[17]
>
> A number of tests need to be satisfied by all claimants and they are cumulative in nature. Let us start, firstly, with my opening comments

---

14 Mr Kris Gale, Managing Director, Michael Johnson and Associates Pty Ltd, *Proof Committee Hansard*, 20 May 2010, pp 32 and 35.

15 Tax Laws Amendment (Research and Development) Bill 2010, lines 12–21, p. 5.

16 Dr Peter Burn, Director, Public Policy, Australian Industry Group, *Proof Committee Hansard*, 21 May 2010, p. 3.

17 Dr Chris Roberts, Chief Executive Officer, Cochlear, *Proof Committee Hansard*, 21 May 2010, p. 14.

> around the definition of core R&D...I think there is a conflict between this definition and the objects clause.[18]

5.14 Treasury, however, disagreed with the criticisms raised and suggested to the Committee that:

> An issue raised in some submissions is the wording of the objects clause. The objects clause in the current law provides a general statement of the intent of the law to provide a tax incentive in the form of a deduction to encourage R&D activities in Australia that increase commercial competitiveness. The bill's objects clause describes the essence of R&D, namely to encourage industry to conduct research and development that might otherwise not be conducted because of an uncertain return from the activities in cases where the knowledge gain is likely to benefit the wider Australian economy. This object is stated to be achieved by providing a tax incentive for industry to conduct in a scientific way experimental activities for the purpose of generating new knowledge or information in either a general or applied form. In this way, the object and the operating provisions are aligned and entirely consistent.[19]

*Committee view*

5.15 The Committee acknowledges the concern of some submitters that by its express reference to the scientific process and new knowledge the objects clause tends to focus on research rather than development. The Committee does, however, note that the objects clause clearly identifies that those research and development activities can be carried out in an experimental way for the purpose of 'generating new knowledge or information' in an **applied form**.

5.16 Based on the evidence provided to the Committee explaining that the 'D' of R&D refers to the application of existing knowledge in new ways, which is referred to by the Frascati model[20] as 'experimental development',[21] the Committee considers that the objects clause should not operate to restrict unduly development activities.

---

18 Mr Serge Duchini, Partner and Research and Development and Tax Incentives Practice Leader, Deloitte, *Proof Committee Hansard*, 21 May 2010, p. 34.

19 Mr Paul McCullough, General Manager, Business Tax Division, Treasury, *Proof Committee Hansard*, 20 May 2010, p. 48.

20 The *Frascati Manual*, a publication developed by the OECD in Frascati, Italy in 1963, is a technical document that is viewed as the 'cornerstone' of OECD efforts to increase the understanding of the role played by science and technology by analysing national systems of innovation. As it provides internationally accepted definitions of R&D and classifications of its component activities, it contributes to intergovernmental discussions on best practice for science and technology policies. Source: *Frascati Manual – Proposed Standard Practice for Surveys on Research and Experimental Development*, OECD, 2002, p. 3.

5.17 The Committee does, however, take the view that the opportunity should be taken to clarify the law prior to its enactment and therefore where the words in the bill can be made clear, that approach should be preferred above reliance on extrinsic material.

**Recommendation 1**

**5.18 The Committee recommends that subsection 355-5(2) of the objects clause be amended to clarify the reference to 'new knowledge or information in either a general or applied form' by adding 'new knowledge in an applied form includes new or improved materials, products, devices, processes or services'.**

***Core activities***

5.19 The existing definition of R&D activities in section 73B(1) provides that research and development activities are:

> (a) systematic, investigative and experimental activities that involve innovation or high levels of technical risk and are carried on for the purposes of:
>
> (i) acquiring new knowledge (whether or not that knowledge will have a specific practical application); or
>
> (ii) creating new or improved materials, products, devices, processes or services; or
>
> (b) other activities that are carried on for a purpose directly related to the carrying on of activities of the kind referred to in paragraph (a).[22]

5.20 Section 73B(2B) provides further guidance explaining that, for the purposes of the definition of research and development activities:

> activities are not taken to involve innovation unless they involve an appreciable element of novelty; and
>
> activities are not taken to involve high levels of technical risk unless the probability of obtaining the technical or scientific outcome of the activities cannot be known or determined in advance on the basis of current knowledge or experience; and the uncertainty of obtaining the outcome can be removed only through a program of systematic, investigative and experimental activities in which scientific method has been applied, in a systematic progression of work…from hypothesis to experiment, observation and evaluation, followed by logical conclusions.[23]

---

21 Experimental development is defined by the Frascati model as systematic work, drawing on existing knowledge gained from research and/or practical experience, which is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed. Source: Dr Peter Burn, Australian Industry Group, *Proof Committee Hansard*, 21 May 2010, p. 2.

22 Section 73B(1) Definitions, ITAA 1936.

23 Section 73B(2B), ITAA 1936.

5.21 This is contrast with the proposed definition of core R&D activities that will be set out in section 355-25. It will provide that:

> (1) 355-25 Core R&D activities are experimental activities:
>
> (a) whose outcome cannot be known or determined in advance on the basis of current knowledge, information or experience, but can only be determined by applying a systematic progression of work that:
>
> (i) is based on principles of established science; and
>
> (ii) proceeds from hypothesis to experiment, observation and evaluation, and leads to logical conclusions; and
>
> (b) that are conducted for the purpose of generating new knowledge (including about the creation of new or improved materials, products, devices, processes or services).
>
> (2)… [excluded activities]

5.22 Treasury submit that the definition in the bill improves certainty by removing contradictions, focusing clearly on underlying experimental activities and using plainer language.[24] They are of the view that the current definition of core R&D activities[25] is 'problematic' as it involves 'multiple overlapping tests and qualifications applied to the basic concept…'[26]

5.23 The Australian Industry Group however takes a different view and contends that the proposed definition will reduce support for development.

> What we are concerned about is the experimental development—that is, the application of existing knowledge in new ways. Clearly it does not fall into the definition of core R&D and, because one way or another it is excluded under the supporting R&D tests, it will not be eligible to be claimed as supporting R&D either. That is our concern and that is not really research related; that is more experimental development—this process of developing things on the run, if you like, in the production process, which is, as the Productivity Commission notes, where 61.6 per cent of 2004-05 R&D expenditure undertaken by business actually occurred.[27]

5.24 Cochlear, also raised some concerns with the proposed new definition of core activities, explaining that:

> It is the importance of the D as well as the R, and a company like Cochlear is doing more D than R. It is capital D and little r. We call it R&D. It is the recognition that it is an ongoing step-by-step-by step building on what has

---

24 Mr Paul McCullough, General Manager, Business Tax Division, Department of the Treasury, *Proof Committee Hansard*, 20 May 2010, p. 47.

25 Which requires activities to be systematic and investigative, involve appreciable novelty or high levels of technical risk or be conducted for the purpose of acquiring new knowledge or information or for creating new or improved materials, products, devices, processes or services.

26 Mr Paul McCullough, General Manager, Business Tax Division, Department of the Treasury, *Proof Committee Hansard*, 20 May 2010, p. 47.

27 Dr Peter Burn, Australian Industry Group, *Proof Committee Hansard*, 21 May 2010, p. 6.

> gone on before. To give you an example, 30 years after the first implant of our cochlear implant, we are still spending 13 per cent of our revenues on technological innovation…We are doing that because it is a step-by-step journey, and it is development. I guess that is the difference between, say, devices and drugs. A drug either works or it does not, but with a device you hit it with a hammer or paint it green or make it blue and add a little widget or whatever, and you develop it. It is a development process. It is the successful development of that over the long term that creates substantial competitive advantage and keeps you in business, and that is why the development side is really important. Even if you come up with an emphasis on the R that might help the SME when it starts up, unless it gets in its head that ongoing development it will not be there. It is a really important point.[28]

5.25 It is this process of demonstration, leading and following that results in spillover benefits that provide the rationale for public sector support for R&D activities.[29] Indeed, Professor Roy Green highlighted the importance of both elements of R&D when he told the committee that:

> [I]n experimentation prototyping the D element of R&D is an important aspect of the definition. I would be surprised and concerned if that were not to be part of a final scheme…I am looking at it from the broader issue of public policy and the application of principles…if it does narrow R&D in an illegitimate way— and that excludes legitimate R&D, including the D part of experimentation and other forms of development—I would be concerned… The point is that, if they are doing R&D that is risky and innovative, it should be covered by the terms of the new scheme...provided that companies are undertaking R&D within what I hope will be a broad definition, they ought to be eligible for such return, but it may not be simply return for business as usual…[30]

5.26 Mr Serge Duchini of Deloitte also highlighted the importance of ensuring development is supported.

> The definition of core R&D…does not explicitly and sufficiently cover application R&D in my opinion, and this was referred to in earlier submissions. This stems from the policy belief that greater benefits flow to the broader community from generating knowledge rather than from the application of the knowledge that is the product of the R&D. No evidence has been presented throughout this entire policy debate that the public subsidy for new knowledge creation will yield greater economic benefit than the subsidy of the application of that new knowledge to the creation of new products, processes, services and devices…There is significant public benefit and wealth creation occurring, with the focus of the R&D as its

---

28 Dr Chris Roberts, Cochlear, *Proof Committee Hansard*, 21 May 2010, p. 16.

29 Mr Innes Willox, Australian Industry Group, *Proof Committee Hansard*, 21 May 2010, p. 2.

30 Professor Roy Green, Dean, Faculty of Business, University of Technology Sydney, *Proof Committee Hansard*, 21 May 2010, pp 19 and 22.

> practical application. This is where the rubber really does hit the road, where tangible commercial outcomes are achieved…It is where corporates take on a significant risk and where technical failures are also common.[31]

5.27 Treasury advised the Committee that they disagree with claims of stakeholders that the proposed definition will 'skew public financial support towards theoretical research and away from the development of new products and services'.

> This is not the case [and] [a]lthough the rewording highlights the purpose of new knowledge, it is clear that the knowledge can be in the practical form of developing new or improved products, processes or services. It has also been put that, if an Australian company could not access knowledge about a product owned by another company and it sought to bridge that knowledge gap through its own R&D, it may be denied the tax incentive since it might be argued that its own R&D is not generating new knowledge… Such an interpretation is not warranted. It ignores the fact that knowledge that is not accessible cannot logically form the benchmark from which the generation of new knowledge can be measured…In any case, under the current law, the concept of new knowledge already exists and, moreover, the particular activities may need to involve appreciable novelty, a concept that overlays a further element of degree and subjectivity. The effect of the knowledge test is to avoid subsidising activities that merely amount to reinventing the wheel or that merely address routine uncertainty.[32]

5.28 The Department of Innovation, Industry, Science and Research (DIISR) has also sought to allay the concerns that have been raised advising that:

> The development aspect of R&D is captured by the application of knowledge recognised in the object clause and also in the definition of *core* R&D. *Core* R&D activities are experimental activities conducted for the purpose of generating new knowledge (including about the creation of new or improved materials, products, devices or processes). The expression 'improved' within 'new' or 'improved' means experimental development activities. These experimental development activities can occur in any environment, including a production or commercial environment.[33]

5.29 As Professor Green put it:

> The point is that, if they are doing R&D that is risky and innovative, it should be covered by the terms of the new scheme...provided that companies are undertaking R&D within what I hope will be a broad

---

31 Mr Serge Duchini, Partner and Research and Development and Tax Incentives Practice Leader, Deloitte, *Proof Committee Hansard*, 21 May 2010, p. 33.

32 Mr Paul McCullough, General Manager, Business Tax Division, Department of the Treasury, *Proof Committee Hansard*, 20 May 2010, p. 47.

33 Mr Ken Pettifer, Head of Division, Innovation Division, Department of Innovation, Industry, Science and Research, *Letter to Committee*, 8 June 2010, p. 1.

> definition, they ought to be eligible for such return, but it may not be simply return for business as usual…[34]

*Committee view*

5.30 While the Committee recognises the apprehension of stakeholders and their concern that application of the new rules will favour research over development, it notes the evidence provided by the Treasury and DIISR.

5.31 The advice provided to the Committee confirms that it is not the intention of the amendments to curtail D but rather to ensure that 'business as usual' activities are not subsidised by taxpayers.

5.32 It is the Committee's preference that the definition of core activities should be sufficiently clear that it does capture both R and substantial D where it is clear that the D is not business as usual activity and will result in spillover benefits. In forming this view the Committee refers to the Productivity Commission's 2007 research report – *Public Support for Science and Innovation*, which identified that:

> R&D should not just be judged on its immediate promise of improvements in products, services or processes, but also on its ability to provide the capacity for better decision making in the future…[35]

> A large part of economic growth reflects the steady application and adaptation by firms of knowledge and innovations that are quite dated from an international perspective but are new to their own productive processes.[36]

5.33 Bearing these observations of the Productivity Commission in mind and having regard to the rationale for public support of R&D, the Committee regards the passage of this bill as the ideal opportunity to remove doubt and ambiguity from operation of the law to provide certainty for those affected by the changes.

**Recommendation 2**

**5.34 The Committee notes that many of the concerns were raised by organisations who want to maintain the status quo. Nevertheless, given the concerns raised, but acknowledging the need to ensure that public support is targeted appropriately, the committee recommends that the definition of 'core R&D activities' in section 355-25 be amended to remove the word 'about' from paragraph 355-25(1)(b) so that the paragraph reads as:**

---

34 Professor Roy Green, Dean, Faculty of Business, University of Technology Sydney, *Proof Committee Hansard*, 21 May 2010, p. 19.

35 Productivity Commission, *Public Support for Science and Innovation*, 9 March 2007, p. 10.

36 Productivity Commission, *Public Support for Science and Innovation*, 9 March 2007, p. 11.

> **[talking about experimental activities] that are conducted for the purpose of generating new knowledge (including ~~about~~ the creation of new or improved materials, products, devices, processes or services).**

5.35 Removing 'about' from the parentheses after the word 'including' would clarify that the creation of new knowledge includes the creation of new or improved materials, products, devices, processes or services. It was suggested to the Committee that as the paragraph currently reads the placement of the word 'about' may be interpreted as a qualifier limiting what the generation of new knowledge includes:

> …the test now focuses on new knowledge, which can be construed as emphasising research but largely ignoring the development side of the equation. In practical terms, there is a question as to whether a building development that involves on-site R&D can even be considered as an R&D cost under the incentive. For instance, in order to test a green retrofit for insulation or structural reinforcing for a new and innovative type of building, it is necessary to conduct part of the R&D within the building itself to take account of all variables. However, the costs associated with that test may not strictly fit the definition of core R&D, as it is currently defined. That would be a very unusual outcome, I would have thought. It really depends on how you interpret 'new knowledge' regarding improving materials, products, et cetera. That is fairly easily fixed, in fact, by ensuring that the R&D definition indicates that the actual creation of new and improved materials, products, devices et cetera is a part of core R&D. That is actually a very simple change because it involves removing two words from section 355-25, being 'about' and 'the' in parentheses.[37]
>
> I have always advocated that we should just get rid of the word 'about'. To me it connotes that it is the development of knowledge around the process of creation rather than the hard, fast creation activity that includes eligible R&D activities. I think that should be amended and I think it is a quick fix. Overall, when I as a professional read the definition I believe that it is easier to read, and I think an engineer reading it would get it, as it talks about 'experimental' and 'experimentation'. Where is the knowledge gap? On the surface, it is a simpler definition than the clunky one that we now have. I accept that, and it is good.[38]

### *Supporting R&D*

5.36 The proposed definition of supporting R&D also attracted criticism throughout the inquiry.

5.37 The definition, that will be set out in section 355–30, will specify that:

> 355–30 Supporting R&D activities

---

37 Mr Andrew Mihno, Deputy Executive Officer, International and Capital Markets Division, Property Council of Australia, *Proof Committee Hansard*, 21 May 2010, p. 41.

38 Mr Serge Duchini, Partner and Research and Development and Tax Incentives Practice Leader, Deloitte, *Proof Committee Hansard*, 21 May 2010, pp 33–34.

> (1) Supporting R&D activities are activities directly related to core R&D activities.
>
> (2) However, if an activity:
>
> (a) is an activity referred to in subsection 355–25(2) [ie an excluded activity]; or
>
> (b) produces goods or services; or
>
> (c) is directly related to producing goods or services;
>
> the [excluded] activity is a supporting R&D activity only if it is undertaken for the dominant purpose of supporting core R&D activities.[39]

5.38 Concerns have arisen predominantly in relation to the introduction of the 'dominant purpose' test that must be met where a claimant is seeking to access the R&D incentive in respect of an otherwise excluded activity.

5.39 Excluded activities are identified in subsection 355-25(2) and include:

> (a) market research, market testing or market development, or sales promotion (including consumer surveys);
>
> (b) prospecting, exploring or drilling for minerals or petroleum for the purposes of one or more of the following:
>
> (i) discovering deposits;
>
> (ii) determining more precisely the location of deposits;
>
> (iii) determining the size or quality of deposits;
>
> (c) management studies or efficiency surveys;
>
> (d) research in social sciences, arts or humanities;
>
> (e) commercial, legal and administrative aspects of patenting, licensing or other activities;
>
> (f) activities associated with complying with statutory requirements or standards, including one or more of the following:
>
> (i) maintaining national standards;
>
> (ii) calibrating secondary standards;
>
> (iii) routine testing and analysis of materials, components, products, processes, soils, atmospheres and other things;
>
> (g) any activity related to the reproduction of a commercial product or process:
>
> (i) by a physical examination of an existing system; or
>
> (ii) from plans, blueprints, detailed specifications or publicly available information;

---

39 Sections 355-25 and 355-30 of Tax Laws Amendment (Research and Development) Bill 2010, pp 6–7.

> (h) developing, modifying or customising computer software for the dominant purpose of use by any of the following entities for their internal administration (including the internal administration of their business functions):
>
> (i) the entity (the developer) for which the software is developed, modified or customised;
>
> (ii) an entity connected with the developer;
>
> (iii) an affiliate of the developer, or an entity of which the developer is an affiliate.[40]

5.40 Although the redrafted definition has caused considerable concern, Treasury explain that the tightening of the provisions application is intentional:

> An important policy change in this bill is that supporting R&D is connected more tightly to core R&D… The key task of the dominant purpose test for any supporting and excluded activities is to prevent activities that would be conducted regardless of core activities being leveraged off them so as to qualify for the tax incentive—that is, the R&D tax incentive should not cross-subsidise production activities that the experiment is merely piggybacking on.[41]

5.41 The potential application and operation of the dominant purpose test is causing particular concern to those companies that undertake R&D in a production environment given that it will require claimants to show that the activities in the production environment are for the dominant purpose of supporting their core R&D activities.

> …the dominant purpose test will severely restrict genuine manufacturing R&D carried out in a production environment…[42]

5.42 Throughout the inquiry, the introduction of the dominant purpose test was related to the matter of 'whole of project' claims; situations where companies are claiming as R&D normal business activity or claiming the whole of a large project when only part of it is innovative (such as claiming the whole of a building as an expense when only the air conditioning was experimental). The Department identified the need to address this issue noting that in some cases directly related supporting activities amount to 90 per cent of tax concession claims.[43]

---

40 Subsection 355-25(2), Tax Laws Amendment (Research and Development) Bill 2010, p. 6.

41 Mr Paul McCullough, General Manager, Business Tax Division, Department of the Treasury, *Proof Committee Hansard*, 20 May 2010, p. 47.

42 Mr David Oliver, National Secretary, Australian Manufacturing Workers Union, *Proof Committee Hansard*, 21 May 2010, p. 23.

43 Mr Ken Pettifer, Head of Division Innovation Division, Department of Innovation, Industry, Science and Research, *Letter to Committee*, 8 June 2010, p. 2.

5.43 Witnesses before the Committee also acknowledged the need to address excessive claims.

> There was a need to do something about…'whole-of-mine claims'... Cutler noted that, while these large claims in areas such as mining, civil engineering and the like are currently eligible under the program and are R&D, they are a big cost impost on the system.[44]

> There is whole of project. This is an example whereby people are claiming as R&D stuff that is clearly not R&D; it is normal business activity. The case of a road has been used in examples of that type of major project. There have been cases in the financial system of people claiming their normal IT expenditure as R&D. There are a whole series of activities and some of them have involved hundreds of millions of dollars. But it is not true to say that this involves just one or two isolated cases.[45]

> Senator XENOPHON—Following on from Senator Cameron's line of questioning, you do agree that under the current system it is open to abuse and rorting, in some instances?

> Mr Parsons—Yes, excessive claims are a possibility using the support activity provision in the sense that they become disproportionate. I would express it as 'excessive claims providing a disproportionate outcome which allows for poor outcomes in terms of policy'.

> Senator XENOPHON—Sure. Others might call that rorting, though.[46]

5.44 Although submitters recognise the need to address these excessive claims they contend that the problem could be addressed without the need to re-write the eligibility criteria.

> From my understanding, some of the excessive claims are where the supporting R&D is very, very large relative to the core R&D. You deal with it by a multiple like that. There are other ways of dealing with it, perhaps by pre-approval for the program.[47]

> …We would question whether a blanket application of a more complicated and restrictive set of eligibility criteria is the best way to address this issue.[48]

> Dr Roberts—Those two examples that you mention could very, very easily be addressed by setting some ratio of supporting versus core R&D or a cap.

---

44 Mr Kris Gale, Michael Johnson Associates Pty Ltd, Managing Director, *Proof Committee Hansard*, 20 May 2010, p. 27.

45 Minister Carr, *Proof Economics Estimates Hansard*, 31 May 2010, p. 56.

46 Mr Robin Parsons, Partner, Ernst & Young, *Proof Committee Hansard*, 21 May 2010, p. 17.

47 Dr Chris Roberts, Chief Executive Officer, Cochlear, *Proof Committee Hansard*, 21 May 2010, p. 12.

48 NSW Business Chamber, *Submission 10*, p. 1.

> Mr Oliver—Or even a cap on the overall size of the project that then drives the need to have an internal review or advance approval.
>
> Mr Chia—Or when trials are run over a period of time, such as when a trial is run over more six months, you get approval for that to become eligible expenditure under the new incentive.[49]
>
> There has to be a better way than having dominant purpose. When you understand that businesses undertake activities, they try to undertake activities in the most efficient way by piggybacking them together and achieving multiple outcomes that will achieve an R&D end and maybe a commercial objective, which is what you want organisations to do. Maybe the word 'dominant' should be softened to 'substantial', which is not an insignificant or a de minimis purpose; it is still a substantial purpose connected to R&D.[50]

5.45 The main alternative canvassed by some submitters was the suggestion that the 'dominant' purpose test be replaced with a 'substantial' purpose test on the basis that this would address the problem of excessive claims yet ensure that the R&D tax incentive is still available to those companies who rely on their existing production processes to commercialise their R&D.

5.46 Consideration of the use of 'substantial' rather than dominant has however raised the concern that this term is in itself ambiguous and its use would not be consistent with the policy objectives that are sought to be achieved.

5.47 Indeed, use of the term 'substantial' has proven problematic in the *Trade Practice Act 1974* context where the word has been interpreted differently in different contexts: section 46, relating to predatory pricing, refers to a corporation that has a substantial degree of power in a market'. Here, the word 'substantial' has been interpreted to mean 'real or of substance, rather than minimal or trivial'. Another judgement found 'substantial' in the context of section 46 to mean a degree of market power which is considerable or large. Section 50 of the TPA prohibits acquisitions which have the effect or likely effect of substantially lessening competition in a market. Here, the word 'substantial' requires that the acquisition be meaningful or relevant to the competitive process.

5.48 DIISR are also of the view that replacing the word 'dominant' with 'substantial' will not achieve the policy intent and would result in an outcome 'fundamentally inconsistent' with the object of the new incentive.

5.49 They have also raised concerns that the use of the word 'substantial' will result in ambiguity and perpetuate the current problem of excessive claims.

---

49 Cochlear, *Proof Committee Hansard*, 21 May 2010, p. 14.

50 Mr Serge Duchini, Partner and Research and Development and Tax Incentives Practice Leader, Deloitte, *Proof Committee Hansard*, 21 May 2010, pp 34-35.

> The dominant purpose test ensures that taxpayers do not claim their 'business as usual' activities. The R&D tax incentive is not intended to support these activities, as normal business deductions are available for such activities… The word 'substantial' should be avoided because in other contexts the courts have found the word to be imprecise and potentially ambiguous. For example, in the 1979 Federal Court case of *Tillmanns Butcheries Pty Ltd v Australasian Meat Industry Employees'* Union Justice Deane said:
>
> > The word "substantial" is not only susceptible to ambiguity: it is a word calculated to conceal a lack of precision. In the phrase "substantial loss or damage", it can, in an appropriate context, mean real or of substance as distinct from ephemeral or nominal. It can also mean large, weighty or big. It can be used in a relative sense or can indicate an absolute significance, quantity or size.
>
> If 'substantial' were used to mean 'not insignificant or de minimis', the existing low bar for supporting R&D activities would be retained. This will be inconsistent with the meaning of the term 'dominant' and will not solve the problem of claims related to 'business as usual activities'.[51]

*Committee view*

5.50 The Committee acknowledges industry concerns about the unknown impact of the 'dominant purpose' test on R&D activity in Australia. In recognising this concern however, the Committee supports the need for government to target public spending in this industry and in so doing ensure that public funds are not misappropriated. Replacing the 'dominant purpose' test with a 'substantial purpose' test could frustrate the intention of the bill that 'business as usual' activities not attract support.

**Recommendation 3**

**5.51 Given the scope of the changes proposed, the Committee is of the view that the amended provisions, including the effect of the 'dominant purpose' test, be reviewed after two years to ensure that the legislation is operating consistently with the Government's intent.**

## Intellectual Property and Software

5.52 Two changes that will be introduced by the bill and which are seen as positive amendments are:

51 Mr Ken Pettifer, Head of Innovation Division, Department of Innovation, Industry, Science and Research, *Letter to Committee*, 8 June 2010, pp 1-2.

(a) the proposal to remove the requirement for intellectual property to be owned in Australia; and

(b) the changes to the treatment of software.

### *Intellectual property*

5.53 When discussed during the inquiry, submitters were supportive of removing the requirement that intellectual property be owned in Australia.

> This makes sense and ensures that Australia's R&D incentives are appropriate for a modern, globally integrated economy.[52]

> …it is a fact that globalisation has created a dynamic where intellectual property is very transportable and is protected in jurisdictions outside of Australia. It is an unfortunate reality that we need to work with that reality and recognise that where R&D activity is within Australia, that delivers many good outcomes for the Australian economy and that we need probably to be sympathetic with our legislation to understand that IP can be held anywhere in the world.[53]

> EGGLESTON—So you do not see any issues about the fact that, under this legislation, intellectual property rights for the outcome of any research will be held by foreign nationals in the United States, the UK, Germany and Switzerland? That will not affect you in any way?
>
> Mr Hick—It would not directly affect us…[54]

### *Software*

5.54 Similarly, the proposal to remove the existing exclusion that requires 'in-house' software to include 'multiple sales' and replace it with an exclusion that clarifies that 'activities related to the development, modification or customisation of software are not eligible core R&D where the software is developed for the dominant (sole) purpose of internal business administration by the entity…for which it was developed, modified or customised'[55] has been applauded.

> The general approach of not treating software R&D activity any differently from other R&D activity is welcomed.[56]

> The removal of the attack on software related R&D is welcome.[57]

---

52 Dr Brendan Shaw, Chief Executive Officer, Medicines Australia, *Proof Committee Hansard*, 20 May 2010, p. 3.

53 Mr Robin Parsons, Partner – Indirect Tax, Ernst & Young, *Proof Committee Hansard*, 20 May 2010, p. 11.

54 Mr Alastair Hick, Director, Commercialisation, Monash University, *Proof Committee Hansard*, 20 May 2010, p. 21.

55 Explanatory Memorandum, para 2.35, p. 25.

56 Australian Information Industry Association, *Submission 26*, p. 2.

57 Michael Johnson Associates, *Submission 5*, Attachment 2, p. 10.

# Chapter 6

# Complexity and changes

## Complexity and compliance costs

6.1 This bill will introduce aspects of the recommendations that came out of the Productivity Commission's 2007 review; through these changes the Government is seeking to simplify the operation of the R&D tax incentives and more effectively target funding at small and medium enterprises.

6.2 A recent study in the United Kingdom has illustrated that these benefits can be achieved through simplifying the tax laws that act as an incentive to investment in R&D.

> A recent …paper on the impact of the R&D tax credit in the UK found that 42% of firms surveyed identified the cost and the information obligation for claiming the tax credit on R&D as the main hurdle to filing a request… Canada has simplified its processes…this has…anecdotally…[led] to increases in claims…[1]

6.3 Whether or not these aims will be achieved by this bill received much attention throughout the inquiry. Some submitters are concerned that the new provisions are in fact more complex and as a result will increase compliance costs to such an extent as to act as a disincentive for those at whom the measures are targeted.

> The third element of our opposition to the proposed approach is that it will increase compliance costs. Under the proposed approach, business will need to split its R&D activities into core R&D activities, directly related supporting R&D activities and supporting R&D activities subject to the new dominant purpose test. This…will add substantially to the business compliance costs of the program…the case, the extra compliance costs will fall disproportionately on smaller businesses...Our claim about compliance costs is very different to the claim made by the government in the explanatory memorandum. We think the government's claim is wrong.[2]
>
> As you know, under the current R&D regime, there is a requirement for R&D plans. While that requirement will not exist under the new legislation, there will nonetheless be a significant amount of additional planning required by companies so that they can reassess the eligibility under the new definition, on the one hand, and also, importantly, to predetermine,

---

1 Dyson, *Ingenious Britain*, p. 54.

2 Dr Peter Burn, Director, Public Policy, Australian Industry Group, *Proof Committee Hansard*, 21 May 2010, p. 4.

> perhaps throughout the annual life of a project, what activities will now be core and what will be support.[3]
>
> [T]he nature of the activities that are to be supported by the bill; the burden of proof and evidence required to sustain eligibility by all claimants; and the compliance burden that will be imposed on claimants who seek to benefit from these provisions.[4]
>
> The structure of the core and supporting R&D provisions will not only unduly limit corporate R&D claims but will also result in significantly higher compliance costs.[5]

*Committee view*

6.4 The Committee notes that the Department and the Australian Tax Office have been allocated $38 million in their budget for additional guidance and support for companies applying under the new legislation.

6.5 The Committee also recognises the intention by the Government that these measures be revenue neutral.

6.6 Nevertheless the Committee recognises that some businesses, particularly small businesses, may struggle with planning and compliance and is concerned this might restrict the ability of some to access the R&D incentive.

> The provision introduces a highly subjective component, which will necessarily increase compliance costs and cause confusion and inconsistency in its application.[6]
>
> You may even want to consider whether or not you have a multi-stage purpose test for those organisations that are SME. Maybe they do not have to meet it…[7]

**Recommendation 4**

**6.7 The Committee recommends that companies with revenues under $20 million be exempt from the dominant purpose test.**

6.8 In addition to concerns regarding the new application arrangements (discussed in Chapter 7) considerable concern has been raised in respect of the proposed feedstock amendments.

---

3 Mr Gregory Oliver, Research and Development Analyst, Cochlear Ltd, *Proof Committee Hansard*, 21 May 2010, p. 12.

4 Mr Serge Duchini, Partner and Research and Development and Tax Incentives Practice Leader, Deloitte, *Proof Committee Hansard*, 21 May 2010, p. 32.

5 Corporate Tax Association, *Submission 14*, p. 2.

6 Deloitte, *Submission 22*, p. 6.

7 Mr Serge Duchini, Partner and Research and Development and Tax Incentives Practice Leader, Deloitte, *Proof Committee Hansard*, 21 May 2010, p. 35.

### *The feedstock provisions*

6.9 The explanatory memorandum explains at paragraph 3.134 that feedstock adjustments apply in relation to good or materials that are transformed or processed during R&D activities that produce one or more tangible products (feedstock outputs). An adjustment also applies to energy that is input directly into processing or transformation.[8]

6.10 This 'adjustment' claws back the incentive component of the R&D tax offset that is enjoyed on recouped feedstock expenditure.[9] The 'incentive component' is the excess of the tax offset over the company tax rate[10] – for example, for companies with a turnover of more than $20 million who are eligible for the 40 per cent non-refundable offset, the 'incentive component' is 10 per cent. Feedstock expenditure is considered to be recouped in circumstances where the product(s) produced (the feedstock output) is sold or supplied to another entity.[11] The following example of the application of the feedstock provisions is provided in the explanatory memorandum:

> Example 3.14: Feedstock output a marketable product
>
> Lisowski Crushing Pty Ltd acquires granite boulders from an adjacent quarry and crushes them into small stones for sale to landscapers. Lisowski identifies a significant potential market for ‘mock dirt’ that will not blow away. Lisowski engages consultants to research and design a diorite stamping head that will crush the granite to fine grains, and has a set of the heads fabricated and fitted to a stamping machine that has been suitably modified. It conducts experiments on 10 tonnes of granite to test the effectiveness of the diorite heads. The resulting granulised granite is sold shortly after to the trade at a special introductory price.
>
> Feedstock expenditure of $10,000 is included in the $22,000 of notional deductions claimed by Lisowski for the R&D activities. Lisowski Crushing has a turnover of $100 million per annum and receives a non-refundable tax offset of $8,800 (40 per cent × $22,000). The potential for the granite granules to be sold in either that or a subsequent income year has no bearing on the size of this tax offset.
>
> The 10 tonnes of granite granules are sold for $900 per tonne. As this is an arm’s length price the feedstock revenue is $9,000. Because the feedstock revenue of $9,000 is less than the feedstock expenditure of $10,000, the feedstock adjustment is based on the $9,000 feedstock revenue figure. In addition to the $9,000 received from the sale, a feedstock adjustment of $3,000 ($9,000 / 3) is included in Lisowski Crushing’s assessable income. This feedstock adjustment is made for the income year in which the granite

8 Explanatory Memorandum, paras 3.134–3.136, p. 86.

9 Explanatory Memorandum, p. 86.

10 Explanatory Memorandum, p. 87.

11 Explanatory Memorandum, pp 86–87.

> granules are sold, which might be the same year as the R&D activities that produce them, or a later year.
>
> The sale occurs in the same income year as the R&D activities. Allowing for the $10,000 tax deduction forgone in order to receive a 40 per cent tax offset on the feedstock expenditure, the incentive component of the tax offset was $1,000 ((40 per cent – 30 per cent) × 10,000), which reduces Lisowski Crushing's income tax liability by that amount. Including the feedstock adjustment in taxable income increases Lisowski Crushing's income tax liability by $900 (30 per cent × $3,000). The net 'tax benefit' of $100 (1,000 – 900) is equivalent to only allowing the 10 per cent incentive on the $1,000 (10,000 – 9,000) 'net' feedstock expenditure.[12]

6.11 Feedstock adjustments apply to both core and supporting R&D activities and the adjustment is required to be included in the company's assessable income.[13]

6.12 In providing evidence to the Committee, Treasury explained that the feedstock provisions within the bill retain the effect of the existing provisions.[14] Treasury also advised that:

> [the] feedstock provisions in the bill have the same scope as under the existing law. For ease-of-use, the bill consolidates all the existing feedstock rules in one subdivision and changes the form of the new feedstock adjustment to that of an increase in accessible income rather than a reduction in the R&D offset. The new mechanism overcomes several technical flaws in the existing rule that can disadvantage taxpayers and avoids the need to put a value on outputs at the end of each year that are not yet in a marketable state.[15]

6.13 Their claim that the proposed provisions retain the same scope and effect of the existing provisions has however been dismissed by numerous submitters to the inquiry.

> There are some feedstock provisions in this bill. They are different from the old bill and they would appear to be more of a tightening position than the old bill. … these current feedstock provisions are a tightening and, if that is the government's intent, all well and good, but I would not characterise them in any other way.[16]

6.14 There has also been much criticism of the fact that the 'augmented feedstock provisions' that featured in the first exposure draft which were redrafted to their

---

12 Explanatory Memorandum, para 3.148, p. 89.

13 Explanatory Memorandum, pp 88–89.

14 Mr Paul McCullough, Treasury, *Proof Committee Hansard*, 20 May 2010, p. 48.

15 Mr Paul McCullough, Treasury, *Proof Committee Hansard*, 20 May 2010, p. 48.

16 Mr Robin Parsons, Partner – Indirect Tax, Ernst & Young, *Proof Committee Hansard*, 20 May 2010, p. 14.

current form were not exposed for public consultation until the bill was introduced into the parliament.

*Committee view*

6.15 The Committee notes some concerns about the complexity of the feedstock provisions set out in the bill but does not believe this will be a problem for large companies. The Committee expects that some of the additional $38 million in funding being provided to the Australian Taxation Office and the Department of Innovation, Industry, Science and Research will be used to help small businesses comply with the provisions.

**Recommendation 5**

**6.16 The Committee recommends that a broad-based working group including small business and union representatives be established to advise Innovation Australia and the Department of Innovation, Industry, Science and Research about any unforeseen circumstances that emerge as the bill is implemented. This working group would also inform the two year review of the bill (Recommendation 7).**

## Calls for delay

6.17 Throughout the inquiry submitters agreed that several aspects of the bill were positive and should be passed without delay. However, there were calls by some to delay passage of the bill for a further 12 months to provide more time for consultation and further modelling.

> One of the biggest issues that we have had with this whole process—and this was borne out yesterday—is that there has been no modelling with which we can engage or comment on in relation to the likely impacts of these changes at a macro level, an industry level or a sectoral level, so it is hard for us to make these assessments.[17]
>
> We believe the eligibility rules are flawed and the implementation timetable is unreasonable…Caltex proposes the following changes to the legislation:
>
> - Delay the implementation of the legislation until 1 July 2011 or later
> - Amend both the core and supporting R&D activities definitions [to adopt the OECD definition for R&D].[18]
>
> Generally we support the broad aim of the introduction of a more streamlined tax incentive however, after a review of the bill and explanatory memorandum; the proposed changes are in direct opposition to

17 Mr Serge Duchini, Partner and Research and Development and Tax Incentives Practice Leader, Deloitte, *Proof Committee Hansard*, 21 May 2010, p. 39.

18 Caltex, *Submission 3*, pp 3–5.

> the stated policy objectives…more time is needed to introduce effective legislation that can deliver on the stated policy objectives. From the limited modelling I have seen, by simply repealing the 175% incremental deduction should go a long way to making the current scheme more revenue neutral.[19]
>
> MJA fully supports the introduction of the Credit as a replacement for the Concession…MJA submits that more time is needed to properly absorb and analyse the new concepts and allow …stakeholders adequate time to plan and prepare for the changes. Time is now so short that the prudent thing for the Government to do is to announce a delay in the introduction of the Credit for one year.[20]

6.18 The question of adequate time for consultation was raised with the Minister during Senate Estimates on 31 May 2010, when he was asked why there was such a rush for the legislation to be passed.

> This is a budget measure. It starts on 1 July this year. It is doubling the benefit to small firms and increasing their level of support for large firms by one-third…the question you would be asking is not 'Why has there been so little consultation?' because that is patently untrue, but, 'Why is there such a campaign by such a small number of consultancy firms…that control claims that are well in excess of $1 billion per annum?' The question is: should we cave in to vested interests? I say we should not.[21]

6.19 The Minister further noted that:

> It is not unusual with tax legislation; it is certainly not unusual in this area of R&D policy. A good change does not necessarily mean that every single person has to agree with it. That is not a measure of success of government policy; a measure of success is whether it stands up to the weight of evidence.[22]

### *Committee view*

6.20 From the evidence it has collated throughout the course of its inquiry the Committee takes the view that on balance, most stakeholders are in favour of the new R&D tax incentive that will provide a refundable or non-refundable tax offset to eligible entities.

6.21 The Committee considers that the calls for the delay of the bill's passage relate to matters which it has sought to address throughout its recommendations.

---

19 Aditus Consulting, *Submission 16*, pp 1–2.

20 Michael Johnson Associates, *Submission 5*, pp 5–6.

21 Senator the Hon Kim Carr, Minister for Innovation, Industry, Science and Research, *Senate Economics Committee Hansard*, 31 May 2010, p. 53.

22 Senator the Hon Kim Carr, Minister for Innovation, Industry, Science and Research, *Senate Economics Committee Hansard*, 31 May 2010, p. 54.

6.22 The Committee takes the view that the remaining opposition to the bill appears to be an opposition to the Government's policy objective to target R&D expenditure to small and medium enterprises and to do this through changes to the eligibility criteria. The Committee supports this policy objective of the Government and notes that the recommendations it has made will operate to ensure that the objective is achieved.

# Chapter 7

# Administrative and transitional measures

7.1 As is presently the case, the R&D tax incentive will be jointly administered by the Commissioner of Taxation and the Department of Innovation, Industry, Science and Research (through the Innovation Australia Board).

7.2 At present, Innovation Australia (IA) is responsible for registering R&D activities of eligible R&D entities; the Commissioner is responsible for determining the concession available through the assessment process following lodgement of the company's return. These agencies will retain these responsibilities under the new arrangements.

## Administration

### *Current arrangements*

7.3 As explained in Chapter 5, accessing the existing R&D tax concession requires that an entity register with Innovation Australia. Although annual registration does not mean that an entity's R&D activities are eligible, it allows IA to monitor the activities of registered entities, on a risk assessment basis. Entities are required to self assess their eligibility although may later be subject to 'audit' by IA.[1]

7.4 Innovation Australia (the Board) is an independent statutory board that assists with the current administration and oversight of Government innovation programmes delivered through the Department of Innovation, Industry, Science and Research.[2]

> Innovation Australia also has functions relating to promoting the development and improving the efficiency and international competitiveness of Australian industry by encouraging research and development activities, innovation activities and venture capital activities.[3]

7.5 The Tax Concession Committee within Innovation Australia provides advice to the Board about the operations of the R&D tax concession. It is the Tax Concession Committee that is responsible for assessing the eligibility of R&D.[4]

---

1 AusIndustry, Guide to the R&D Tax Concession Part B – Research and Development Activities Version 4.2, July 2008, para B2–1, p. 6.

2 Mr Peter Thomas, Chair Tax Concession Committee, Innovation Australia, *Proof Committee Hansard*, 21 May 2010, p. 49.

3 Mr Peter Thomas, Chair Tax Concession Committee, Innovation Australia, *Proof Committee Hansard*, 21 May 2010, p. 49.

4 Mr Peter Thomas, Chair Tax Concession Committee, Innovation Australia, *Proof Committee Hansard*, 21 May 2010, p. 49.

***Proposed arrangements***

7.6 Under the new administrative framework, which will be introduced in Division III of the IR&D Act 1986, entities will continue to self–assess whether or not their activities are eligible for the offset under Division 355.[5] A number of new requirements will however be introduced.

*Registration*

7.7 Under these new provisions, R&D entities will be required to seek registration of their activities with IA. Although this is an existing requirement, under the new provisions, there will be a requirement that those entities, when applying, separately identify core and supporting R&D.[6] The Board will then be required to confirm or reject all requests for registration of an entity's activities as either 'core' or 'supporting' activities.

7.8 This aspect of the proposed registration process attracted considerable criticism from submitters who are of the view that the requirement to separately identify core and supporting activities in their application will add compliance cost and is directly opposed to the self assessment regime in which the broader tax system currently operates.

> Disappointingly, claimants will still be required to document and cost core and supporting R&D activities separately on registration of their activities. This will be a heavy burden on all claimants and in particular many of the SMEs that are the focus of this new bill.[7]
>
> …it is a major concern that the Bill allows for registrations to be rejected purely on the content of the submitted form. The registration process has been made more complicated…This is not a self assessment environment.[8]
>
> It is not clear why the administration regime for the new R&D tax credit needs to be more strict than the normal income tax self-assessment system…This power is unlike that of the Commissioner of Taxation who accepts a company's statements in its income tax return at the time of lodgement…Innovation Australia, appear to be stepping away from a self–assessment system…the Bill appears to give greater powers to IA to unilaterally reclassify activities and reject registrations…IA is not required to make any of its decisions or findings within particular timeframes…The registration process should align with the income tax self assessment process…Under a self-assessment regime, a company should also be

5 Explanatory Memorandum, para 5.2, p. 117.

6 Explanatory Memorandum, Tax Laws Amendment (Research and Development) Bill 2010, para 5.5, p. 118.

7 Deloitte Touche Tohmatsu Ltd, *Submission 22*, p. 9.

8 Confidential Submitter, *Submission 15*, p. 4.

> deemed to be registered in respect of R&D activities upon lodgement of its Application for Registration.[9]
>
> It is reasonable to expect that the proposed changes will add complexity and require companies to invest greater internal resources to the claim process. In particular, the requirement for claimants to distinguish between these activities has the potential to discourage companies from lodging an R&D tax credit claim.[10]

7.9 In addition to the concerns that the new registration process moves away from the self-assessment regime was a concern that the Department does not have the industry expertise to make these judgments. When questioned as to the suitability of their staff for this role however, the Department commented that:

> Our role is to apply the law to the projects that we see. The decisions we take are supported by private sector experts. That is why Innovation Australia, the statutory body, are the group that have control of the program in an administrative sense; they are private sector experts. Where we are unsure, we do two things. We use industry experts to help us. We commission them to look at the projects and give us a report and then we utilise that information in making our decisions. We also use the experts on our tax committee and on Innovation Australia to vet our decisions, because at the end of the day they make decisions under the current program.[11]

*Committee view*

7.10 Having considered the evidence presented throughout the course of the inquiry, the Committee takes the view that the Department, through IA, will have the expertise, requisite knowledge and skills to make decisions regarding the registration of applicants.

7.11 The Committee notes the Department's undertaking to provide two levels of information — general guidance material (fact sheets, guidelines, etc) and public findings[12] and takes the view that the provision of such guidance material should mitigate the compliance impacts that were raised by some submitters.

*Findings*

7.12 In addition to the changes to registration, other amendments that will affect administration of the R&D tax incentive are being introduced. They include:

---

9 KPMG, *Submission 9*, pp 4 and 20.

10 NOAH Consulting, *Submission 8*, pp 3-4.

11 Dr Russell Edwards, General Manager, Department of Innovation, Industry, Science and Research, *Proof Committee Hansard*, 20 May 2010, p. 53.

12 Dr Russell Edwards, General Manager, Department of Innovation, Industry, Science and Research, *Proof Committee Hansard*, 20 May 2010, p. 50.

(a) the Board may choose to consider an application in more detail and make a formal finding in relation to all or some of the activities mentioned in the application; an applicant's registration will be automatically varied to be consistent with a finding of the Board;

(b) an entity may request an advance finding;

(c) an entity wishing to claim a tax offset for activities conducted outside of Australia must apply for a finding — this is required to be an advance finding; and

(d) the Commissioner of Taxation can ask the Board to make a finding that particular technology is or is not core technology.[13]

7.13 The subject of findings did not attract attention throughout the inquiry.

## Transitional measures

7.14 The amendments set out in Schedule 2 of the bill that will introduce the new Part III of the IR&D Act 1986 will commence from 1 July 2010. The provisions they are replacing will be repealed but, as the Board will still require powers in relation to what will be the 'legacy' R&D tax concession, some provisions of Part IIIA will be preserved through transitional arrangements.[14]

## Drafting comments

7.15 Throughout the inquiry it was contended that the explanatory memorandum and bill contained minor drafting errors. A list of the 'errors' identified is attached in Appendix 3.

### Recommendation 6

**7.16 The Committee notes the claim of drafting errors. The Committee notes that minor drafting errors are common when framing new legislation. The Committee does not believe that these minor errors are of sufficient magnitude to delay passage of the bill but considers it preferable that they be dealt with before the bill is enacted.**

13 Explanatory Memorandum, pp 121–122.

14 Explanatory Memorandum, para 5.181, p. 155.

# Chapter 8

# Estimated impacts of the bill

## The impact on usage of the scheme

### *The number of supported companies*

8.2 The Treasury was quite clear that the number of assisted firms will increase:

> …it makes cash refunds available to more firms…[1]

8.3 Innovation Australia was also explicit on this point:

> I would expect that there would be an increase in the number of companies that were registering for the R&D tax credit or offset, if only because the quantum of the benefit they can get is greater.[2]

8.4 An example is Z-Filter, an SME developing innovative filtering technology, who submitted:

> The global financial crisis has reduced Z-Filter's (and other SMEs') access to capital via debt and equity markets, therefore the refundable tax credit is absolutely vital as the lifeblood for SME undertaking innovative activities.[3]

### *Sectors likely to attract less support*

8.5 The Treasury commented:

> This bill does not seek to distinguish between industries…I would characterise it as a fairly neutral impact, because you are not necessarily favouring one sector or another and you let the commercial imperatives out there take the research where it might go.[4]

8.6 This does not, of course, mean that the impact will be equally spread across industries. The changes in the bill will mean industries that do more genuine research will benefit at the expense of those who have previously claimed for activities only tangentially related to research.

---

1 Mr Paul McCullough, General Manager, Business Tax Division, Treasury, *Proof Committee Hansard*, 20 May 2010, p. 46.

2 Mr Peter Thomas, Chair, Tax Concession Committee, Innovation Australia, *Proof Committee Hansard*, 21 May 2010, p. 51.

3 Z-Filter, *Submission 24*, p. 1.

4 Mr Paul McCullough and Mr Gerry Antioch, Business Tax Division, Treasury, *Proof Committee Hansard*, 20 May 2010, p. 46.

### *Large versus small companies*

8.7 The changes in the bill will, by design, shift support towards smaller firms:

> …there is unquestionably a move towards supporting R&D which is carried on by SMEs.[5]

> It's clear the Government is focused on rebalancing and retargeting the R&D tax credit for the SME market, rather than the big end of the market.[6]

8.8 The change to a refundable credit will benefit more small firms than large as small start-ups are more likely to be in a tax loss position. But this is not discrimination against large firms. There is an explicit decision to offer a somewhat higher rate of assistance to firms with a turnover below $20 million.

8.9 By contrast, the current scheme appears to concentrate unduly on a small number of larger firms:

> There is no doubt that the majority of R&D concession is held in the hands of very few claimants.[7]

### *Support for research versus development*

8.10 The Treasury said:

> Contrary to some public commentary, the bill recognises that R&D is often done alongside business-as-usual production activities. It does not skew the tax incentive towards pure research…[8]

8.11 It does, however, shift emphasis towards research generating new knowledge with more widespread benefits, and away from development work of benefit only to the company undertaking it. This is the policy intent.

## Estimated economic impact

8.12 The changes are expected to increase the total amount of R&D by increasing the size of the incentives and making them more attractive to small firms. KPMG do not expect the changes to definitions to have any material effect on research undertaken. Their report:

> …does not factor in the proposed changes to definition, as this is likely to have less impact on pure and academic research.[9]

---

5 Mr Peter Thomas, Chair, Tax Concession Committee, Innovation Australia, *Proof Committee Hansard*, 21 May 2010, p. 50.

6 Mr Yasser El-Ansary, quoted by Senator Cameron, *Proof Committee Hansard*, 20 May 2010, p. 16.

7 Ms Tracey Murray, Partner, BDO Australia, *Proof Committee Hansard*, 20 May 2010, p. 38.

8 Mr Paul McCullough, General Manager, Business Tax Division, *Proof Committee Hansard*, 20 May 2010, p. 46.

8.13 Over the medium term, increased R&D and innovation will boost productivity, economic growth and national income.

***The KPMG study***

8.14 The Treasury tabled a report by KPMG, *Competitive Alternatives 2010*: *Special Report: Focus on Tax*, which comments:

> Comparing the rankings [of ten OECD economies for tax on R&D operations] in 2010 to 2008, the most dramatic change is for Australia, moving up from fifth place in 2008 to first in 2010. The change is the result of Australia adopting a new R&D tax credit system as of July 1st 2010 that is refundable for corporations that meet defined revenue limits.[10]

8.15 KPMG themselves were somewhat more cautious in interpreting the results of their research, making the caveat that the report 'did not purport to rank countries by how well their respective tax systems support commercial entities that undertake R&D as part of their wider operations, but rather, how well the tax system supports pure R&D entities'.[11]

## Will the bill be revenue-neutral?

8.16 The Committee heard conflicting views on whether the bill introduces a revenue-neutral change (ie that the budget deficit is unaffected by moving from the old to the new scheme) as intended.

8.17 Michael Johnson Associates told the Committee that:

> …we have supplied modelling to all the Treasury submissions in relation to the drafts, and our modelling on the publicly available figures suggested that, with the increased rates of credit and introduction of foreign-owned IP, offset by the cost savings of the incremental provisions—which we think are about 30 to 35 per cent of the current cost of the program—you have already got a revenue-positive result, and that is before you start to look at the apparently restrictive impacts of the new definition.[12]

8.18 The Advanced Manufacturing Coalition put a similar view:

> The concerns we have raised above will have the effect of substantially reducing the quantum of eligible R&D activities across all claimants in the future. We do not believe that the increased value of the tax offset would

---

9 KPMG, *Submission 9*, p. 6.

10 KPMG, *Competitive Alternatives 2010*: *Special Report: Focus on Tax*, p. 19.

11 KPMG, *Submission 9*, p. 6.

12 Mr Kris Gale, Managing Director, Michael Johnson Associates, *Proof Committee Hansard*, 20 May 2010, p. 27. See also their *Submission 5*, p. 7 and Attachment B.

> compensate for this reduction. It therefore follows that…this change is likely to represent a net gain to the Commonwealth revenues.[13]

8.19 Some accounting firms also suspected the bill would increase government revenue:

> …the abolition of incremental 175 provisions that save hundreds of millions of dollars. Conversely, there is rate and threshold increases, particularly at the SME level that costs money. There have been tightening measures that have occurred, dominant purpose, feedstock and other areas, but no modelling has been done that I am aware of that shows this policy intent, which I understand and respect, has actually been achieved.[14]

8.20 In stark contrast, Treasury, who have done modelling on this question and have the experience in this kind of assessment, stated that the changes will be revenue-neutral:

> …this whole bill has been designed…to be revenue neutral…the dominant purpose test and things of that nature… yield some savings and they are broadly offset by the increase in the rates. [15]

8.21 Treasury believe that the numbers bandied about as reductions in eligible claims (such as 30 to 60 per cent) may be true for some individual categories but are vastly overstated for industry as a whole.[16] Their own modelling suggests there will be around a 15-20 per cent (around $300 million) reduction in revenue foregone as a result of tightening eligibility offset by a similar increase due to the higher rates on existing projects and the additional projects induced by those higher rates.[17]

8.22 One of the key factors in assessing whether the changes are revenue-neutral is the extent to which the current scheme is undeservedly rewarding expenditures only tangentially related to R&D (or 'rorts' to put it less kindly).

8.23 MJA provide one piece of evidence on the responsiveness of firms to the size of concessions:

> …the effective halving of the available benefits under the Concession in the 1996 Budget saw program participation rates drop by some 30% in the next 3 years…[18]

---

13 Advanced Manufacturing Coalition, *Submission 2*, p.

14 Mr Robin Parsons, Partner, Ernst & Young, *Proof Committee Hansard*, 20 May 2010, p. 13.

15 Mr Paul McCullough, General Manager, Business Tax Division, *Proof Committee Hansard*, 20 May 2010, p. 50.

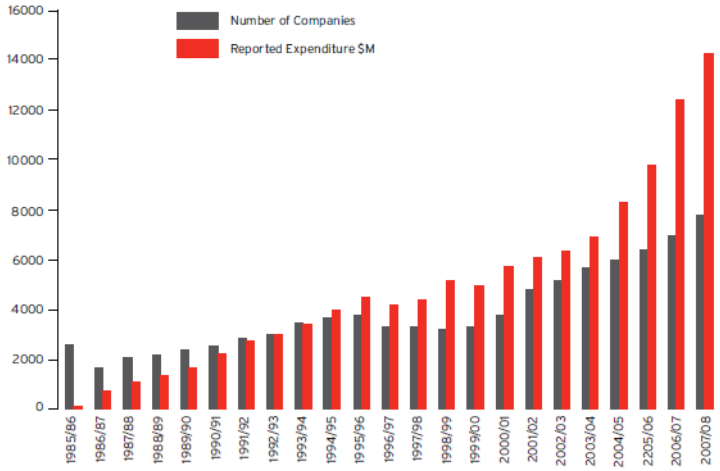
16 Mr Gerry Antioch, Manager, Business Tax Division, *Proof Committee Hansard*, 20 May 2010, p. 50.

17 Mr Paul McCullough and Mr Gerry Antioch, Business Tax Division, Treasury, *Proof Committee Hansard*, 20 May 2010, pp 58-59.

18 Michael Johnson Associates, *Submission 5*, p. 7.

8.24 This seems broadly consistent with the data shown in Chart 8.1.

**Chart 8.1: Summary of registration data from 1985-86 to 2007–08**




Source: Innovation Australia, *Annual Report 2008-09*, p. 22.

8.25 Some back-of-the-envelope calculations suggest that Treasury's estimate that the changes will be revenue neutral is at least plausible. It is estimated that the existing concession costs around $1500 million in 2009-10 so:

- Abolishing the 175 per cent incremental tax concession saves around $350 million per year[19];
- Tightening the eligibility criteria will lead on Treasury's estimates to a 20 per cent saving, or around $250 million per year.
- Effectively increasing the rate of the former 125 per cent tax concession represents a doubling of the benefit for small businesses and a one-third increase for large businesses. While smaller businesses (under $20 million annual turnover) are the majority of the recipients by number, by value the majority of the benefit goes to just 100 firms, suggesting the increase in cost will be much closer to a third than double. Applying this increase to the 20 per cent smaller base adds around $300 million to $400 million per year to the cost.
- If, as suggested in MJA's calculation above, a 50 per cent change in benefits led to a 30 per cent change in take up, then a 33 per cent change in benefits could lead to a 20 per cent change in take up. Allowing for the larger effect on smaller firms, this could add around $250 million to $300 million per year to the cost.
- Summing these suggests the change to the budget balance could be between a saving of $50 million and a cost of $100 million.

19 Information provided by DIISR.

8.26 There is inevitably a significant degree of uncertainty around these estimates. The Cutler Review referred to 'the inherent difficulty of accurately forecasting the effects of changes to a tax instrument'.[20]

8.27 The Corporate Tax Association also recognises the uncertainty around any modelling exercise and suggests:

> If the law is to be changed on the basis of the Bill as currently drafted, we strongly urge the government to monitor the level of claims – particularly for large business. In the event that the level of claims drops in a way that was not anticipated the government should move quickly to fine tune the eligibility rules so that an appropriate level of industry support is restored.[21]

### *Committee view*

8.28 The Committee expects the bill will increase the amount of R&D by small firms and in time this should lead to stronger economic growth. The Committee accepts Treasury's modelling that the net budgetary impact will be about revenue-neutral, although it is hard to be precise. Given these uncertainties the operation of the bill should be reviewed after it has been operating for some time.

### Recommendation 7

**8.29 The Committee recommends that the Senate pass the bill, with the amendments proposed in the earlier recommendations, before the end of June 2010. The operation of the bill should be monitored on an ongoing basis and reviewed after two years.**

**Senator Annette Hurley**

**Chair**

20 *Venturous Australia*, 2008, p. 101.

21 Corporate Tax Association, *Submission 14*, p. 1.

# Dissenting Report by Coalition Senators

The Coalition supports increased business investment in research and development (R&D) and appropriate reforms to legislation to help achieve this outcome. We also accept the general principle that changes to the current law may potentially help to achieve a higher R&D rate for a greater number of Australian businesses.

However, we will not be supporting the *Tax Laws Amendment (Research and Development) Bill 2010*; *Income Tax Rates Amendment (Research and Development) Bill 2010*. There are several shortcomings in the Bills that will be addressed in this report.

## Consultation

Throughout this inquiry, there have been complaints about the failure of appropriate consultation associated with the legislation.

> In order to understand and apply these changes, the industry will need time to consult on the legal implications to ensure compliance, and individual companies will need to develop and implement new internal mechanisms to administer the scheme.[1]
>
> Consultation timelines have been highly condensed. The second exposure draft was released by Treasury on 31 March, with submissions from stakeholders due by 19 April, a total of only 10 working days. This is not sufficient time to digest 134 pages of legislation and provide substantive comments, particularly given that the second exposure draft incorporated a number of new concepts, including a completely new definition for core R&D. In addition, the tight timeframes meant that Treasury had not completed its redrafting in time for the 31 March release. As a result, the second exposure draft did not include redrafted feedstock provisions, and instead merely stated that "a feedstock adjustment rule is under consideration."[2]
>
> Stakeholders were not provided with an opportunity to comment on this aspect of the legislation until after it was introduced into Parliament, which is an unfortunate and disappointing outcome.[3]
>
> Firstly, the Government has given itself an absurdly short timetable for community consultation and examination by the Parliament of what is a fundamentally new approach to the definition of eligible expenditure. The new approach would apply to all business R&D expenditure undertaken

---

1 Caltex Australia, *Submission 3*, page 5.

2 Australian Treasury, Tax Laws Amendment (Research and Development) Bill 2010 – 2nd exposure draft, 31 March 2010, p. 26.

3 New South Wales Business Chamber, *Submission 10*, page 6.

> from 1 July 2010 and, under the timetable presented to us, business will have about two weeks to examine the new Act before R&D spending will come under the new regime. Putting aside the particular features of the proposed changes, this timetable for introducing a fundamentally new approach will increase the range of grey areas surrounding the tax incentive and the resulting uncertainty will see businesses scale back their expenditure. This outcome sits in stark contrast to the purpose of the R&D tax incentive – which is to encourage additional R&D expenditure by business.[4]
>
> …lament the missed opportunities to genuinely consult over the months before January 2010.[5]

This was arguably best highlighted in the submission from Michael Johnson Associates.

> A consistent theme of the submissions to the Committee's hearings was that there has been inadequate time to digest the key documents associated with the introduction of the Bills. The main causes of concerns are as follows:
>
> - The Second Exposure Draft (which was materially different to the First Exposure Draft in many aspects) only allowed 11 days (across the Easter and school holiday periods) for stakeholders to prepare responses and it omitted key provisions such as those relating to feedstock.
> - The feedstock provisions did not appear until the Bills were read in to Parliament. At the Committee hearings, Senator Back indicated that he was not aware that the provisions had been made available at all prior to the commencement of the Committee hearings.
> - The Committee hearings began within a week of the Bills being read into Parliament meaning that written submissions actually follow rather than precede the hearings and that many stakeholders were unaware of the hearings taking place.
> - The legislation will commence with no guidelines available to assist taxpayers and no transition process to allow taxpayers to make arrangements for the new legislative environment.
> - AusIndustry has indicated that it will be rolling out its first wave of program material in July/August 2010 and that this will not be developed in consultation with industry.
>
> At the Committee hearings, even the Chair of the TCC conceded that the above timetable represented a "fairly rushed process". One consequence of the rushed approach is that the EM contains a number of mistakes in terms of references to the Bills (see Attachment A).

---

4 Australian Industry Group, *Submission 19*, page 3.

5 Ernst and Young, *Submission 30*, page 9.

> Taken along with the wildly divergent views expressed at the Committee hearings, the timetable above has meant that the Bills and EM have been prepared in haste and are distinctly lacking in clarity and accuracy.
>
> MJA submits that the package is in poor shape and should not proceed to law in its proposed form on 1 July 2010.[6]

This was reflected in the committee hearings as well.

> Cutler reviewed the PC report and came up with the polar opposite: increase the base and scrap the incremental. We then went on to a consultative process where we got that consistency of viewpoint, and then the rather unfortunately timed Christmas package, which arrived just before Christmas, did not take that consultation into any real account at all, and put forward a definition that virtually word-for-word mirrored what was in the Productivity Commission report. We then got 131 submissions over the Christmas period. Again, the almost unanimous tenet was, 'Do not make these changes.' This has not happened, and I do feel that in the very specific consultations we had that we did get an opportunity to express our views but we were essentially being prescribed, 'This is what we are doing; what do you think?' rather than being asked: 'How would you tackle these issues?' For example, we were not asked about the suggestions we have about how we could deal with large claims under the existing definition of putting too much strain on revenue.[7]
>
> Normally there is adequate time to examine these things, to consult with them and to provide scope and opportunities for things to be adjusted before they are taken to the parliament, but not in this case.[8]
>
> From my perspective, having been engaged in this process since it started, this all points to the haste with which we are trying to nail this so that it can apply from 1 July. The second exposure draft was completely different from the first exposure draft. I speak openly when I say that the first exposure draft we got just before Christmas was a dog's breakfast. From my perspective, only then did real consultation start. We had a wasted opportunity from the time we had the Cutler report, to the consultation paper, to the first exposure draft. That time should have been used, I think, working on what we have as the second exposure draft, which was somewhat of an improvement, and then even the bill. On the second exposure draft I think we had 11 business days to consult. The bill came out last Thursday and we are here today talking about it. It is rushed and you will have a suboptimal outcome because it is rushed. I think you need to think about it.[9]

---

6 Michael Johnson Associates Pty Ltd, *Submission 5*, pp 14 – 15.

7 Mr Kris Gale, Managing Director, Michael Johnson Associates Pty Ltd, *Proof Committee Hansard*, 20 May 2010, page 30.

8 Dr Peter Burn, Director, Public Policy, Australian Industry Group, *Proof Committee Hansard*, 21 May 2010, page 5.

9 Mr Sergio Duchini, Partner and Research and Development and Tax Incentives Practice Leader, Deloitte, *Proof Committee Hansard*, 21 May 2010, page 35.

This is a reflection of the overall approach of the Rudd Government, which continues to rush legislation into Parliament without due consultation and consideration. Additionally, the Committee has not been given sufficient time to consider the Bills – another trademark of the Rudd Government's approach to legislation and policy making.

Proper consultation with all relevant industry stakeholders over an extended period of time would have prevented the numerous problems identified in this report.

Stakeholders are consistently urging the Government to at least delay the introduction of the Bills. Given the Government's failure to consult appropriately, this is an eminently sensible suggestion; indeed, it is entirely prudent for these bills to have their start dates deferred. This was supported both in submissions and in evidence given to the Committee.

> I would suggest that the prudent thing to do would be to delay the implementation date to 1 July 2011. Let us use the next 12 months to tweak this, to get it right, and then pass it as the law.[10]
>
> We submit that the introduction of the Bills be deferred to 1 July 2011, to enable appropriate consultation and clarification on the changes and related guidelines. Companies require additional notice to consider the new rules and adjust their business plans accordingly. The proposed passing of the Bill in the last week of June, for application on 1 July 2010, without guidelines, will create confusion and are unlikely achieve the desired changes in levels of R&D activity for 2010/11income year.[11]
>
> The radical nature of the shift in innovation policy cannot be easily assessed and applied in practice by taxpayers. Therefore the Minerals Council of Australia recommends the Bill be delayed for at least one year (to 1 July 2011) until more detailed consideration can be undertaken.[12]

Further to this, it was pointed out that there is no evidence of any supporting documentation, rulings, regulations, guidelines or forms for the new legislation.[13] This is concerning, particularly if the Bills are to take effect from 1 July 2010.

> I was a bit shocked that in July there will be a road show around the guidelines and they have not engaged with industry on those guidelines. How effective will they be?[14]

---

10 Mr Sergio Duchini, Partner and Research and Development and Tax Incentives Practice Leader, Deloitte, *Proof Committee Hansard*, 21 May 2010, page 35.

11 KPMG, *Submission 9*, page 4.

12 Minerals Council of Australia, *Submission 11*, page 13.

13 Aditus Consulting, *Submission 16*, page 2.

14 Mr Sergio Duchini, Partner and Research and Development and Tax Incentives Practice Leader, Deloitte, *Proof Committee Hansard*, 21 May 2010, page 35.

It was stated in the hearings that the educational material was still being developed by AusIndustry.

> However I can say that it is our intention to produce sectoral guidelines as educational material for different industry sectors, but neither of us, unfortunately, could comment on the policy deliberations.[15]

The fact of the matter is that the legislation is being unnecessarily rushed through the Parliament, leaving the Department of Innovation, Industry, Science and Research to prepare education campaigns, regulations and guidelines that have not yet been adequately tested with industry and stakeholders. This is an inappropriate state of affairs when industry is recovering from the global financial crisis and facing a second potential downturn in the economy, if current media speculation in Europe and the United States is to be believed.

**Recommendation 1:**

**The Coalition recommends that the start date for these Bills be amended to 1 July 2011.**

An additional result of the hasty development of the Bills was numerous drafting errors, as well as inconsistencies between the Explanatory Memorandum and the Bills, as identified in several submissions.[16] The Coalition continues to be alarmed at the regular drafting errors that keep arising in legislation under the Rudd Government – although it is hardly a surprising outcome given there is often such limited time between drafting and introduction. All drafting errors must be eradicated before the legislation's enactment.

**Recommendation 2:**

**The Coalition recommends that the passage of the Bills be delayed in order to rectify the issue of drafting errors.**

## Definitions of 'core' and 'supporting' R&D

The Bill substantially alters the definitions of 'core' and 'supporting' R&D. In narrowing the definition of what constitutes genuine R&D, the Bill will disqualify from assistance many forms of R&D undertaken by Australian businesses. In turn, the overwhelming expectation of those groups who have lodged submissions on the

15 Dr Russell Edwards, Ex officio member, Tax Concession Committee, Innovation Australia, *Proof Committee Hansard*, 21 May 2010, page 52.

16 Michael Johnsons Associates Pty Ltd, *Submission 5 – Attachment 1*, pp 10 – 12; KPMG, *Submission 9*, page 10; Deloitte, *Submission 22*, page 12, Document tabled by Mr Serg Duchini (Deloitte) at a public hearing in Sydney on 21 May 2010: "Incorrect bill references in the explanatory memorandum", *Additional Information Received*; Ernst and Young, *Submission 30*, page 10.

exposure drafts is that the Government's changes will reduce the number of firms qualified for the concession. There will be particularly grave consequences for firms focused on industrial R&D and other 'non-lab/white coat' activities, including those involved in manufacturing, prototyping and process development.

The problem with the new definition was outlined as:

> The new definition of R&D is not better aligned with the Frascati Manual definition as had previously been contended by Treasury. In fact, the eligibility of the third limb of the Frascati definition – experimental development – is in real doubt.[17]
>
> There is a very narrow definition of a core activity—experimental work, unknown outcomes, new knowledge—and then there are a range of choices as to what a supporting activity might be, with a strong flavour that anything in a production environment is in danger of not being eligible. It is those trials that could be unable to be claimed.[18]
>
> Certain companies look at this definition and they believe that the majority of what they do is 'core' and that their claims might be able to be sustained in this environment. Equally, other companies look at this definition and say: 'A lot of what we do is in a production context.[19]

The definition of R&D in the Frascati model, as developed under the auspices of the OECD is:

> Research and experimental development (R&D) comprise creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications.[20]

This is a well recognised definition and several witnesses pointed out that this had been the model they had worked with for quite some time and the new definitions that were being pushed by Treasury and the Department of Innovation, Industry, Science and Research could cause problems.

> On the need to bring the definition into better alignment with the internationally accepted Frascati Manual definition of R&D: I think they are no longer maintaining that. I think that the proposed definition in this bill recognises the first two elements of Frascati being basic and applied

---

17 Michael Johnson Associates Pty Ltd, *Submission 5*, page 3.

18 Mr Kris Gale, Managing Director, Michael Johnson Associates Pty Ltd, *Proof Committee Hansard*, 20 May 2010, page 28.

19 Mr Kris Gale, Managing Director, Michael Johnson Associates Pty Ltd, *Proof Committee Hansard*, 20 May 2010, page 28.

20 Organisation of Economic Co-operation and Development, *Frascati Manual – Proposed Standard Practice For Surveys on Research and Experimental Development*, OECD, 2002, page 30.

research, but query the applicability of the third limb, which is experimental development. This package seems to query the extent to which that work would be eligible.[21]

The second and central basis for our strong opposition to the new approach to defining eligible business R&D expenditure is that it is highly restrictive. For approximately 25 years, our R&D tax incentive has been based on what is known as the Frascati model, which has been developed under the auspices of the OECD over a number of decades. Under this model, R&D is defined as:

> … creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of humanity, culture and society, and the use of this stock of knowledge to devise new applications.

The second part of the definition, 'the use of this stock of knowledge to devise new applications', is central to our objections to the new approach proposed by the government. The objects clause of the bill states:

> The object … is to encourage industry to conduct research and development activities … by providing a tax incentive for industry to conduct, in a scientific way, experimental activities for the purpose of generating new knowledge or information in either a general or applied form.

Critically, this clause omits the second critical element in the Frascati approach—'the use of this knowledge to devise new applications'.[22]

The new definition of 'core' R&D is:

> (1) ***Core R&D activities*** are experimental activities:
>
> (a) whose outcome cannot be known or determined in advance on the basis of current knowledge, information or experience, but can only be determined by applying a systematic progression of work that:
>
> (i) is based on principles of established science; and
>
> (ii) proceeds from hypothesis to experiment, observation and evaluation, and leads to logical conclusions; and
>
> (b) that are conducted for the purpose of generating new knowledge (including about the creation of new or improved materials, products, devices, processes or services).[23]

Several submissions were critical of this approach.

The new definition of core R&D requires taxpayers to seek new, previously unknown or undiscovered information and carry out scientific experimentation to uncover that new knowledge. Claimants such as Caltex will need to prove in a retrospective assessment that the knowledge did not exist anywhere else, which will create additional administrative and

---

21 Mr Kris Gale, Managing Director, Michael Johnson Associates Pty Ltd, *Proof Committee Hansard*, 20 May 2010, page 27.

22 Dr Peter Burn, Director, Public Policy, Australian Industry Group, *Proof Committee Hansard*, 21 May 2010, page 3.

23 Tax Laws Amendment (Research and Development) Bill 2010, section 355-25.

> operational burdens. This creates an innovation system which does not encourage industry to pursue innovation and development of processes and products.[24]
>
> The definition of core R&D activities in the bill confirms the research focus of the new approach to business R&D. The approach outlined in the bill leaves little room for the majority of what business R&D is actually about—what, in the Frascati model, is called 'experimental development'. Experimental development is defined as:
>
> … systematic work, drawing on existing knowledge gained from research and/or practical experience, which is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed.[25]

When it came to the hearings, the witnesses were strident in their view that the definition of core R&D was inappropriate and would add additional red tape issues.

> For example, the requirement that supporting R&D activities must be either directly related to or be conducted for the dominant purpose of supporting core R&D activities will add significantly to the compliance burden.[26]
>
> It splits off the development of new knowledge from the development of new or improved product processes, devices, materials and services. If you have a manufacturing process where you are trying to develop a new process, under the current scheme you will have a project that might be a certain size. The first 30 per cent of that might be the creation of new knowledge, and the remaining 70 per cent would be the development of the new process, which by this definition is R&D. It is that 70 per cent that will get lopped off by this legislation.[27]

Similarly, the new definition of 'supporting' R&D is:

> (1) ***Supporting R&D activities*** are activities directly related to *core R&D activities.
>
> (2) However, if an activity:
>
> (a) is an activity referred to in subsection 355-25(2); or
>
> (b) produces goods or services; or
>
> (c) is directly related to producing goods or services;

---

24 Caltex, *Submission 3*, page 6.

25 Dr Peter Burn, Director, Public Policy, Australian Industry Group, *Proof Committee Hansard*, 21 May 2010, pp 3 – 4.

26 Dr Brendan Shaw, Chief Executive Officer, Medicines Australia, *Proof Committee Hansard*, 20 May 2010, page 3.

27 Mr Ian Ross-Gowan, Manager, Michael Johnson Associates Pty Ltd, *Proof Committee Hansard*, 20 May 2010, page 29.

> the activity is a ***supporting R&D activity*** only if it is undertaken for the dominant purpose of supporting *core R&D activities.[28]

This has been of considerable concern in several submissions and followed up on during the hearings. The submissions and witnesses pointed out:

> By redefining supporting activities as proposed, incentives for R&D will move away from industrial R&D programs to laboratory-style programs. Caltex's industrial R&D occurs on a commercial scale, with improvements to processes and outputs trialled in live conditions rather than laboratory or theoretical conditions.[29]

> The whole concept of supporting and inducing additional R&D will be undermined by that uncertainty. Even if overall it worked out to be a fantastic new approach once the dust had settled, this problem would exist.[30]

> I think we agree entirely that, in the manufacturing or production environment, it will be an additional compliance because of the dominant purpose test, but there is still a significant compliance issue required in the non environment, where most of our R&D happens to be, in order to address the core and supporting activities.[31]

The Australian Industry Group pointed out two major concerns with the definition of supporting R&D.

> Firstly, supporting R&D expenditure is only eligible if it is ether "directly related to" core R&D activities or if it is "undertaken for the dominant purpose of supporting" core R&D activities. This means that businesses would have to be undertaking core R&D before *any* of its R&D expenditure could qualify as supporting R&D expenditure. If a business has no expenditure that qualifies as core R&D, it will have no eligible R&D expenditure.[32]

> Secondly, in any case much experimental development is neglected by the dominant purpose test in the definition of supporting R&D activities. In the Bill (s355-30), a supporting R&D activity is defined as an activity directly related to core R&D activities except if it is an activity that is: explicitly excluded, *or* if it is an activity that "produces goods or services", *or* if it is an activity "is directly related to producing goods or services". In any of these cases the expenditure needs to be undertaken for "the dominant purpose of" supporting core R&D activities.[33]

---

28 Tax Laws Amendment (Research and Development) Bill 2010, section 355-30

29 Caltex, *Submission 3*, page 6.

30 Mr Innes Willox, Director, Government and International Relations, Australian Industry Group, *Proof Committee Hansard*, 21 May 2010, page 7.

31 Mr Gregory Oliver, Research and Development Analyst, Cochlear Ltd, *Proof Committee Hansard*, 21 May 2010, page 13.

32 Australian Industry Group, *Submission 19*, page 7.

33 Australian Industry Group, *Submission 19*, page 7.

> One of our advisors put it this way: "it is difficult to think of many supporting activities that don't fall into one of the three dominant purpose categories given that any activity directly related to production is captured."[34]
>
> Put simply, there are simply too many ways that supporting R&D activities will be excluded from eligibility for the proposed new R&D incentive for business to have any confidence that experimental development will continue to attract a tax incentive.[35]

**Recommendation 3:**

**The Coalition recommends that the definitions of core and supporting R&D be reconsidered to be more closely aligned to the Frascati model of R&D.**

## Eligibility Criteria

The Government's changes to the eligibility requirements are sweeping, and threaten to significantly erode support for R&D investment in Australia. They are also fundamentally inconsistent with the Government's stated intent of making R&D tax support arrangements simpler, more predictable and more generous. Instead, they impose a series of barriers upon firms rather than offering encouragement for innovation.

> Because of the operation of the dominant purpose test and the feedstock provisions, an eligible R&D activity may have no costs associated with it and therefore the customer or the client or the SME can go away from an AusIndustry meeting believing that they are eligible for the R&D tax credit program, only to have that eligibility wiped away because of the application of, for instance, the feedstock provisions or the eligibility of expenditure provisions.[36]
>
> While that requirement will not exist under the new legislation, there will nonetheless be a significant amount of additional planning required by companies so that they can reassess the eligibility under the new definition, on the one hand, and also, importantly, to predetermine, perhaps throughout the annual life of a project, what activities will now be core and what will be support.[37]
>
> However, there are a number of concerning implications which flow from what I refer to as the core building blocks of the proposed bill… the burden

34 Australian Industry Group, *Submission 19*, page 7.

35 Australian Industry Group, *Submission 19*, page 7.

36 Ms Tracey Murray, Partner, Research and Development, BDO Australia, *Proof Committee Hansard*, 20 May 2010, pp 39 – 40.

37 Mr Gregory Oliver, Research and Development Analyst, Cochlear Ltd, *Proof Committee Hansard*, 21 May 2010, page 12.

> of proof and evidence required to sustain eligibility by all claimants; and the compliance burden.[38]

### *'Dominant Purpose' Test*

The major concern was the use of the term 'dominant purpose'. Several witnesses expressed concern as to what that term actually meant.

> The third tier comes about with what we still refer to as the exclusions list, although it is no longer called that in the bill. It says that a range of activities are defined as not being core activities. If you have an activity that comes under that list of exclusions then you have to jump over another hurdle. You have to show that that activity is for the dominant purpose of supporting a core activity. So I guess the issue is the complexity of having to define what are your core activities and you're supporting activities and justifying the fact that an activity has the dominant purpose of supporting a core activity. That is relatively complex. Also, companies are required to identify that upfront when they are registering their R&D activity to qualify for the tax credit. That is a relatively high compliance burden on our members and other companies. That is our concern.[39]

> In a manufacturing setting a company will come up with a process concept or a new product concept, but it will need to be tested in real life or at a scale-up version. Scale-up is a real challenge to successfully commercialising R&D, so it is important that the technical issues and problems are overcome. A production trial can be very small or very large, and it will depend on the particular facts. In manufacturing, typically, there will be a batch run of a new concept or product and there will be feedback R&D—invariably, the first trial will not be the final product. Feedback R&D highlighting shortcomings and failures within the system gives the R&D team the knowledge to further improve and create the product or process they are seeking. In a manufacturing setting this would be common.[40]

In submissions and during the hearings, there was evidence of continual and considerable confusion about what was meant by dominant purpose.

> The Easter draft persists with the notion of the need to introduce a dominant purpose test to qualify supporting R&D activities. Four categories of supporting activities have been identified and the taxpayer needs to identify which category its supporting activities belong to – if the activity is on the exclusions list, production or (somewhat bizarrely) directly related to production, the dominant purpose test applies; if not in any of these categories, then the directly related test applies. The introduction of

---

38 Mr Sergio Duchini, Partner and Research and Development and Tax Incentives Practice Leader, Deloitte, *Proof Committee Hansard*, 21 May 2010, page 32.

39 Ms Deborah Monk, Director, Innovation and Industry Policy, Medicines Australia, *Proof Committee Hansard*, 20 May 2010, pp 4 – 5.

40 Mr Robin Parsons, Partner, Indirect Tax, Ernest and Young, *Proof Committee Hansard*, 20 May 2010, page 12.

> production is a first-time concept for the R&D tax incentive and has wide-ranging implications that the Easter draft does not fully explore.[41]
>
> Under the current definition of R&D activities, all activities qualify under the 'systematic, investigative and experimental' (SIE) test or the 'directly related' test. No distinction is made. Under the proposed Credit, the taxpayer needs to split activities into core or supporting and then establish which of four tests the supporting activities applies to. As discussed earlier, these decisions will be based on the overall circumstances of the activities without the EM providing any definitive guidance as to how circumstance relate to the law.[42]

The introduction of the dominant purpose test appears to be a large impost on businesses.

> The overwhelming feedback from our diverse client base indicates that a "dominant purpose" test will exclude a large proportion of production trial activity that is a necessary and legitimate part of the research and development cycle. If the aim is to contain the cost to revenue associated with large and open-ended production trials, the introduction of a cap on the total value of the group's R&D claim would better achieve this objective, whilst also providing clarity and simplicity for claimants.[43]
>
> The dominant purpose test should be removed as it imposes an unnecessarily high threshold as evidenced in the EM, and does not target the minority of excessive claims which the Government purports are occurring;[44]

It is concerning that many submissions were advocating for the removal of the dominant purpose test. Several alternative models were suggested, such as:

- 'A purpose directly related to' test[45]
- Substantial purpose[46]
- Apportionment of expenditure[47]
- Dollar capping the extent of production trials,[48] on the total value of the R&D claim for companies with group annual revenue exceeding $1 billion,[49] or on eligible R&D expenditure.[50]

---

41 Michael Johnson Associates Pty Ltd, *Submission 5 – Attachment 2*, page 23.

42 Michael Johnson Associates Pty Ltd, *Submission 5 – Attachment 2*, page 23.

43 NOAH Consulting, *Submission 8*, page 3.

44 KPMG, *Submission 9*, page 7.

45 Deloitte, *Submission 22*, pages 2 and 7.

46 Property Council of Australia, *Submission 28*, page 7; Deloitte, *Submission 22*, page 7.

47 Ernst and Young, *Submission 30*, page 4.

- More sympathetic language[51]
- Specific provisions for specific excesses[52]
- Time limits for trials[53]
- Pre approvals for projects above certain values[54]

**Recommendation 4:**

**The Coalition recommends that the dominant purpose test be removed and be reconsidered.**

## Object Clause

The object clause needs to be revised in respect of spillover and additionality benefits. The object clause currently reads:

> (1) The object of this Division is to encourage industry to conduct research and development activities that might otherwise not be conducted because of an uncertain return from the activities, in cases where the knowledge gained is likely to benefit the wider Australian economy.
>
> (2) This object is to be achieved by providing a tax incentive for industry to conduct, in a scientific way, experimental activities for the purpose of generating new knowledge or information in either a general or applied form.[55]

It was pointed out that this is a more restrictive term and could impact on Australian industry.

> During the course of the public consultation process last year the CTA and other external stakeholders urged the government not to include an objects clause that refers to R&D activities that would not otherwise occur and which are likely to involve spillover benefits for the broader community. We are disappointed this remains a feature of the Bill because we consider there is a risk that, at the margin, a court or tribunal might be guided by such language in resolving disputed claims.[56]

---

48 Ernst and Young, *Submission 30*, pp 4 – 5.

49 NOAH Consulting, *Submission 8*, page 3; KPMG, *Submission 9*, page 7.

50 Corporate Tax Association, *Submission 14*, page 2.

51 Ernst and Young, *Submission 30*, page 5.

52 Ernst and Young, *Submission 30*, page 5.

53 KPMG, *Submission 9*, page 7.

54 KPMG, *Submission 9*, page 7.

55 Tax Laws Amendment (Research and Development) Bill 2010, section 355–5.

56 Corporate Tax Association, *Submission 14*, pp 1–2.

> While those concepts may be well and good, they are impossible to prove and therefore should not be part of the statutory framework – even as part of an objects clause. Such language might well be appropriate for a second reading speech but, in our view, does not belong in the law itself. We would much prefer the objects clause to make reference to increasing the efficiency and international competitiveness of Australian business, which reflects what we regard as the proper rationale for the incentive.[57]
>
> The objects clause of the draft legislation was too narrow and restrictive and implicitly or explicitly accorded greater emphasis to research rather than development. It changed the emphasis that has been in the objects clause one way or another since the inception of the R&D tax concession in the mid 1980's. That emphasis that has always been central to the objectives of an R&D tax incentive focused on increasing investment in R&D in Australia and to help Australian industry become more internationally competitive, export oriented and innovative[58]
>
> But in a sense this restricts the eligible research and development to those circumstances where a company could perhaps be asked: 'Would you not have done this without the credit?' That is actually not a very sensible position because the credit should just be a cost-planning issue in a matrix where you make a decision about whether to do the work or not. I think one of the great concerns about the idea of conditionality is that people keep focusing on: 'Prove that we are only funding things that would never have been done.' That does not make sense to me.[59]

It is concerning that several witnesses suggested that the object clause concentrates more on research than development.

> The narrow coverage of the objects clause suggests to us that the government intends to pare back the role of the R&D tax incentive to fund, almost exclusively, research. It does not intend to include much of what business R&D is about—namely the development of existing knowledge to 'devise new applications'. Instead the government intends that the R&D tax incentive will apply to activities conducted for the purpose of producing new knowledge. It would be more straightforward to refer to it as the 'research tax credit'.[60]
>
> The new object clause (s355-5), when taken in conjunction with the new definition for core R&D, seems to reflect an intention to limit support to

57 Corporate Tax Association, *Submission 14*, page 2.

58 Advanced Manufacturing Coalition, *Submission 2*, page 2

59 Mr Kris Gale, Managing Director, Michael Johnson Associates Pty Ltd, *Proof Committee Hansard*, 20 May 2010, page 28.

60 Dr Peter Burn, Director, Public Policy, Australian Industry Group, *Proof Committee Hansard*, 21 May 2010, page 4.

> research and exclude development. This is despite the fact that development represents the largest and most important aspect of BERD.[61]
>
> The objects clause in the draft legislation definitely narrows the definition and has a much greater emphasis on the R rather than the D, compared to the existing situation.[62]
>
> The comment was made earlier that it is more about the 'R' and less about the 'D'. I think there is a conflict between this definition and the objects clause. I think the objects clause more eloquently and more directly says that the object of this section is to promote and support investments in R&D. But if you look at section 355-25(1)(b), I think you will find that the wording in that subparagraph could be improved pretty simply.[63]

This is not a positive sign for future research and development. While the Coalition does not believe that the balance should be tilted the other way, both research and development should receive equal footing within the taxation system.

**Recommendation 5:**

**The Coalition recommends that the Object clause be amended to ensure that both research and development are given equal tax benefits.**

## Intellectual Property

There was concern by Cochlear Ltd about the ownership of intellectual property outside of Australia, as this may be disadvantageous to the Australian economy[64] and it was additionally suggested in evidence given to the Committee that the non-retention of intellectual property ownership within Australia be trialled for three years and then reassessed.

> I think, with care, that proposition could be accepted with the government reviewing it maybe after two or three years of activity to see exactly to what extent it has resulted in benefits domestically. It is a bit of a risk for us in public policy but I think, given the globalisation of R&D, it is something we should try out to see what the impact might be.[65]

---

61 New South Wales Business Chamber, *Submission 10*, page 1.

62 Dr Christopher Roberts, Chief Executive Officer, Cochlear Ltd, *Proof Committee Hansard*, 21 May 2010, page 14.

63 Mr Sergio Duchini, Partner and Research and Development and Tax Incentives Practice Leader, Deloitte, *Proof Committee Hansard*, 21 May 2010, page 33.

64 Mr Andrew Chia, Group Tax Manager, Cochlear Ltd, *Proof Committee Hansard*, 21 May 2010, page 17.

65 Professor Roy Green, Dean, Faculty of Business, University of Technology Sydney, *Proof Committee Hansard*, 21 May 2010, page 20.

## Conclusion

In short, the Bill radically alters a regime that has been operating effectively since the 1980s – and in a way that disadvantages a large number of Australian businesses. Where companies must currently demonstrate that their R&D activities are novel or have high technical risk, Labor essentially proposes to fund firms only in cases in which they can show they have introduced a wholly new technique, process or solution. Its effect is punitive on a number of large companies (whose best innovations are often based upon making refinements to existing practices) as well as the small business sector, given that approximately 60 per cent of current applicants are SMEs.

Together, the proposed changes to elements of the legislation such as the definition of R&D activities, the dominant purpose regarding supporting activities, the registration processes and feedstock rules will have the very opposite effect to the Government's stated intentions of providing greater generosity, predictability and simplicity. They will disadvantage rather than benefit most Australian companies intending to undertake R&D.

Unsurprisingly, the changes have therefore attracted substantial criticism from a wide diversity of stakeholders, including major organisations such as the Australian Industry Group, the Australian Chamber of Commerce and Industry, Ernst & Young and KPMG.

We also note that the Chair's report now implicitly acknowledges a number of potential problems with the legislation, including drafting errors and definitional concerns. We do not believe that it is appropriate that Bills be rushed through when they contain such errors and when they therefore give rise to considerable uncertainty. Reviewing elements of the Bills after three years is also not an appropriate means of addressing problems of the kind evident in this legislation – and a more practical step would be to make sure they are more appropriately drafted in the first place.

Increased innovation and productivity are both key factors in Australia's future economic success. But these Bills seek to gut an incentive that is integral to assisting and encouraging a diversity of companies to improve their business operations.

The Coalition will not be supporting these Bills.

**Senator Alan Eggleston**
**Deputy Chair**

**Senator David Bushby**

# APPENDIX 1

## Submissions Received

| Submission Number | Submitter |
|---|---|
| 1 | AusBiotech |
| 2 | Advanced Manufacturing Coalition |
| 3 | Caltex Australia |
| 4 | Risk Research International Pty Ltd<br>• Supplementary Submission |
| 5 | Michael Johnson Associates |
| 6 | Trilateral Pty Ltd |
| 7 | Mr Geoff Stearn, GSM Consulting Pty Ltd |
| 8 | NOAH Consulting |
| 9 | KPMG |
| 10 | NSW Business Chamber |
| 11 | Minerals Council of Australia |
| 12 | Confidential |
| 13 | Confidential |
| 14 | Corporate Tax Association |
| 15 | Confidential |
| 16 | Aditus Consulting |
| 17 | Dr Terry Fruend |
| 18 | Confidential |
| 19 | Australian Industry Group |
| 20 | Australian Manufacturing Workers Union |
| 21 | Confidential |
| 22 | Deloitte Touche Tohmatsu Ltd |
| 23 | BSI Innovation Pty Ltd |
| 24 | Z-Filter Pty Ltd |
| 25 | Consult Australia |
| 26 | Australian Information Industry Association |
| 27 | Federal Chamber of Automotive Industries |
| 28 | Property Council of Australia |
| 29 | Hydrix Pty Ltd |
| 30 | Ernst and Young |
| 31 | Treasury |

# Additional Information Received

## TABLED DOCUMENTS

### Canberra, Thursday 20 May 2010

- Document tabled by Treasury: "Competitive Alternatives 2010"
- Document tabled by Treasury: "Joint Submission"

### Sydney, Friday 21 May 2010

- Document tabled by Mr Sergio Duchini (Deloitte): "Incorrect bill references in the explanatory memorandum"

## ANSWERS TO QUESTIONS ON NOTICE

- Received from Medicines Australia; answers to Questions on Notice taken at a public hearing in Canberra on 20 May 2010
- Received from Treasury; answers to Questions on Notice taken at a public hearing in Canberra on 20 May 2010
- Received from BDO Australia; answers to Questions on Notice taken at a public hearing in Canberra on 20 May 2010
- Received from Property Council of Australia; answers to Questions on Notice taken at a public hearing in Sydney on 21 May 2010
- Received from Department of Innovation, Industry, Science and Research; answers to written Questions on Notice requested following public hearing on 20 and 21 May 2010

# APPENDIX 2

## Public Hearings and Witnesses

### CANBERRA, 20 May 2010

ALLAN, Mr Steve, Director,
Moore Stephens

ANTIOCH, Mr Gerard Januarius, Manager, Business Tax Division,
Treasury

BRADSHAW, Mr Michael,
Treasury

DOUGLAS, Mr Ian,
Treasury

EDWARDS, Dr Russell, General Manager,
Department of Innovation, Industry, Science and Research

GALE, Mr Kris, Managing Director,
Michael Johnson Associates Pty Ltd

HICK, Mr Alastair, Director, Commercialisation,
Monash University

MALONEY, Mr Matthew, Senior Adviser,
Treasury

McCULLOUGH, Mr Paul, General Manager, Business Tax Division,
Treasury

McWATERS, Mr David, Divisional Director, Corporate Finance,
Monash University

MONK, Ms Deborah, Director, Innovation and Industry Policy,
Medicines Australia

MURRAY, Ms Tracey, Partner, Research and Development,
BDO Australia

PARSONS, Mr Robin, Partner, Indirect Tax,
Ernst & Young

PETTIFER, Mr Ken, Head of Division,
Department of Innovation, Industry, Science and Research

ROSS-GOWAN, Mr Ian, Manager,
Michael Johnson Associates Pty Ltd

SHAW, Dr Brendan, Chief Executive Officer,
Medicines Australia

WEBER, Mr Tony, General Manager, Innovation Analysis,
Department of Innovation, Industry, Science and Research

## SYDNEY, 21 MAY 2010

APPLE, Mr William Nixon, Industry and Economics Adviser,
Australian Manufacturing Workers Union

BALL, Mr Alan, Vice-President, Finance,
Thales Australia

BOLTON, Ms Kathrine, Tax Analyst,
Caltex

BURN, Dr Peter, Director, Public Policy,
Australian Industry Group

CHENOUDA, Mr George, Manager, Taxation,
Caltex

CHIA, Mr Andrew, Group Tax Manager,
Cochlear Ltd

DUCHINI, Mr Sergio, Partner and Research and Development and Tax Incentives Practice Leader, Deloitte

EDWARDS, Dr Russell, Ex officio member, Tax Concession Committee,
Innovation Australia

GREEN, Prof. Roy, Dean, Faculty of Business,
University of Technology Sydney

HIND, Dr Andrew Robert, Research and Development Manager,
Varian Australia

McLAUGHLIN, Mr Steve, Financial Controller,
Marand Precision Engineering Pty Ltd

MIHNO, Mr Andrew, Deputy Executive Director, International and Capital Markets Division, Property Council of Australia

OLIVER, Mr David, National Secretary,
Australian Manufacturing Workers Union

OLIVER, Mr Gregory, Research and Development Analyst,
Cochlear Ltd

REEN, Ms Melanie, Adviser,
Advanced Manufacturing Coalition

ROBERTS, Dr Christopher, Chief Executive Officer,
Cochlear Ltd

THOMAS, Mr Peter, Chair, Tax Concession Committee,
Innovation Australia

TOPHAM, Mr Frank, Manager, Government Affairs and Media,
Caltex

WILLOX, Mr Innes Alexander, Director, Government and International Relations,
Australian Industry Group

WILSON, Ms Felicity, Adviser, Government Affairs and Media,
Caltex

# APPENDIX 3

## Drafting comments

| ***Comment number*** | ***Description*** |
|---|---|
| 1 | 2.12Schedule 1, item 1, paragraph 355-25(a), Schedule 1, item 1 paragraph 355-25(1)(a) |
| 2 | 2.16 Schedule 1, item 1, paragraph 355-25(b) There is no s 355-25(b) |
| 3 | 2.23 Schedule 1, item 1, paragraph 355-35(2)(a) This paragraph is about residents of foreign countries not dominant purpose |
| 4 | 2.32 Schedule 1, item 1, paragraph 355-35(2)(a) This paragraph is about residents of foreign countries not dominant purpose |
| 5 | 3.3 Part 3 of Schedule 3 (2nd reference) This is a wrong description of what Chapter 4 explains |
| 6 | 3.18 Schedule 1, item 1, section 355-40 There is no s 355-40 |
| 7 | 3.19 Schedule 1, item 1, section 355-40 There is no s 355-40 |
| 8 | 3.24 Schedule 1, item 1, section 355-40 There is no s 355-40 |
| 9 | 3.46 Schedule 1, item 1, section 355-115 There is no s 355-115 |
| 10 | 3.49 Schedule 1, item 1, paragraph 355-220(a) There is no s 355-220(a) |
| 11 | 3.57 Schedule 1, item 1, paragraph 355-210(1)(a) This paragraph is where R&D is conducted not about permanent establishments |
| 12 | 3.57 Schedule 1, item 1, subsection 355-210(2) This paragraph is about R&D that is not conducted by an eligible entity not about permanent establishments |
| 13 | 3.61 Schedule 1, item 1, subsection 355-20(2) There is no s 355-20(2) |
| 14 | 3.82 Schedule 1, item 1, section 355-305(d) There is no s 355-305(d) |
| 15 | 3.83 Schedule 1, item 1, section 355-305 This section is not about notional application of Division 40 |

| | |
|---|---|
| 16 | 3.131 Schedule 1, item 54, section 4-25 There is no item 54 in Schedule 1 |
| 17 | 3.157 Schedule 3, item 44, subsection 136AB(2) There is no s 136AB(2) in item 44 |
| 18 | 3.205 Schedule 1, item 1, section 355-699 There is no s 366-699 |
| 19 | 5.111 Schedule 2, item 1, subsection 27A(2) This subsection is not about being bound to an assessment nor about other entities not being able to rely on this |
| 20 | 5.151 Schedule 2, item 1, subsection 30C(3) This subsection is not about what information the Board is able to rely on |

Source: Document tabled by Mr Sergio Duchini, Deloitte; Michael Johnson and Associates *Submission 5* (Attachment 1).

# Glossary

| | |
|---|---|
| ABS | Australian Bureau of Statistics |
| Additionality | Activity undertaken due to an incentive that would not otherwise be done. |
| Applied research | Original investigation undertaken in order to acquire new knowledge, directed primarily towards a specific practical aim or objective. |
| Basic research | Experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view. |
| Core R&D | Experimental activities that are conducted to generate new knowledge. |
| CRC | Cooperative Research Centre; an organisation formed through medium to long term collaborative partnerships between publicly funded researchers and end users. |
| DIISR | Department of Innovation, Industry, Science and Research |
| Experimental development | Systematic work, drawing on existing knowledge gained from research and/or practical experience, which is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed. |
| Feedstock | Inputs consumed by an R&D activity. |
| Frascati | OECD report suggesting a common definition of R&D for statistical purposes. |
| IA | Innovation Australia, an independent statutory board which assists with the administration and oversight of Australian government, industry, innovation and venture capital programmes delivered through DIISR. |
| IR&D | *Industry Research and Development Act 1986* |
| ITAA | *Income Tax Assessment Act 1936*. |
| MFP | Multi-factor productivity; that component of output that cannot |

| | |
|---|---|
| | be attributed to factors such as labour and capital. |
| MJA | Michael Johnson Associates; a firm that advises companies on applying for R&D tax concessions. |
| OECD | Organisation for Economic Co-operation and Development; international government-funded economic research body specialising in comparative studies. |
| R&D | Research and development |
| R&D activities | Core R&D or supporting activities. |
| R&D entity | A company either incorporated under Australian law, resident in Australia or carrying on business in Australia through a permanent establishment. |
| RSP | Research Service Provider; company providing services in specified research fields to registered R&D entities. |
| Spillover benefit | Benefit from R&D that accrues to companies (or individuals) not undertaking the R&D. |
| Supporting activities | Activities directly related to core R&D activities or with the dominant purpose of supporting them. |
| 'Whole of project' claims | Attempts to claim R&D tax concession for the whole of a project when only a portion of it constitutes R&D. |