

Research & Development Expenditure – Accounting Treatment for Tax Purposes

Discussion Paper

14 November 2000

**Hon Dr Michael Cullen
Minister of Finance and Revenue**

Research and Development Expenditure – Accounting Treatment for Tax Purposes: Discussion Paper
ISBN 0-478-10340-9

First published in November 2000 by the Policy Advice Division of the Inland Revenue Department,
PO Box 2198, Wellington, New Zealand.

This discussion paper is available on the website of the Policy Advice Division at:
<http://www.taxpolicy.ird.govt.nz>

CONTENTS

PART I: INTRODUCTION

New Zealand’s spending on R&D.....	1
Budget measures to encourage R&D.....	1
Uncertainty in current tax treatment.....	1
Summary of proposal.....	2
Submissions.....	3

PART II: SUMMARY OF CURRENT TAX TREATMENT

General deductibility.....	4
<i>Case law</i>	4
<i>Timing of deduction</i>	5
Section DJ 9 – deductibility of scientific research expenditure.....	5
The depreciation rules.....	5

PART III: ACCOUNTING TREATMENT OF R&D EXPENDITURE

Nature of R&D expenditure covered by FRS-13.....	6
R&D that can be expensed.....	6
Other factors in determining whether R&D can be expensed.....	6
<i>Application of FRS-13</i>	6
<i>Other FRS-13 requirements</i>	7
“Research” and “development” defined.....	7
Application of FRS-13 to different entities.....	8
<i>Exempt companies</i>	8
<i>Entities that qualify for differential reporting</i>	9
<i>Partnerships and sole traders</i>	9

PART IV: PROPOSED TAX TREATMENT

Timing of deduction.....	10
Costs that are amortised for accounting.....	10
Entities that are not required to apply the criteria in paragraph 5.3 of FRS-13....	10
Costs that are not material for accounting.....	11
Writing off, and reinstatement, of amortised costs.....	11
Definition of R&D.....	11
Fixed asset inputs into the R&D process.....	12
R&D “black hole” expenditure.....	12
Software.....	12
Examples of the proposed tax treatment.....	12

Form of legislation.....	14
<i>Specific incorporation</i>	14
<i>Incorporation by reference</i>	14
<i>Preferred approach</i>	15
Compliance with paragraph 5.3 of FRS-13 for financial reporting purposes.....	15
Fiscal risk from avoidance activity.....	15
Tax audit	15

PART V: OTHER ISSUES

Full deductibility of R&D expenditure.....	16
Legislative timetable and application date.....	16

ANNEX

PART I: INTRODUCTION

New Zealand's spending on R&D

1. New Zealand's reported private sector research and development (R&D) is very low by international standards (less than a quarter of the OECD average), but this is now increasing at a faster rate than the OECD average. Total reported private sector R&D expenditure increased by an average of 6.25 percent per year from 1990/91 to 1997/98. This compares to an increase in the OECD as a whole of about 2.4 percent per year over the same period.

2. The Government is committed to encouraging private sector R&D in New Zealand. We do a great deal to assist R&D. In addition to providing tax concessions through immediate deductibility of scientific research expenditure, the Government also purchases around \$650 million of R&D per year directly from Crown Research Institutes and universities. Although this level is slightly below the OECD average, public purchase of R&D has been increasing at a rate of 12 percent per year since 1995 compared to the OECD as a whole, where there has been an increase of 3.0 percent per annum.

Budget measures to encourage R&D

3. As part of our commitment, the Government announced in the Budget that we would support private sector R&D by introducing a new grants programme and providing an increase in funding for Technology New Zealand. We opted for a grants approach because we considered that it was better, safer and fairer than tax concessions. The new grants programme has been running for eight weeks and has attracted over 800 applications. Good progress is being made on considering and, where appropriate, approving these applications.

Uncertainty in current tax treatment

4. Some taxpayers and tax practitioners have responded to the Budget announcements by pointing out that the measures do nothing to address the existing uncertainty over the current tax treatment of R&D.

5. Practitioners we have spoken to have noted that the main area of uncertainty relates to distinguishing between capital and revenue R&D expenditure. The tax treatment depends on whether costs are classified as revenue or capital. In broad terms, expenditure is capital if it gives rise to an enduring benefit to the taxpayer. Otherwise, it is revenue expenditure.

6. Broadly, expenditure on *revenue* account is immediately deductible for tax if the required link with income is shown. Expenditure on *capital* account is not immediately deductible (unless it relates to "scientific research", which is treated more favourably than other capital expenditure). Instead, expenditure on capital account is either deductible over the life of an asset or, on occasion, may not be deductible at all. There is little case law in New Zealand on R&D expenditure to assist taxpayers in determining whether R&D costs are on capital or revenue account. It is, therefore, not clear in tax law when R&D expenditure will be immediately deductible and when it will not be.

7. We understand that, although the tax treatment of R&D expenditure is uncertain, taxpayers are immediately deducting almost all of their R&D costs. However, this carries the risk of potential disputes with Inland Revenue, and penalties and use of money interest that apply when tax is underpaid.

Summary of proposal

8. The Government is proposing to address this uncertainty by introducing the measure outlined in this discussion paper. Broadly, the proposal is to clarify the capital/revenue boundary by permitting taxpayers to follow accounting treatment to the extent that when R&D expenditure is immediately written off for accounting purposes, it will be immediately deductible for tax purposes.

9. Normal tax treatment will continue to apply to fixed asset inputs into the R&D process such as buildings and vehicles. Generally these will be depreciable. All other expenditure on *research* will be immediately deductible for tax purposes.

10. Expenditure on *development* (except for fixed asset inputs) will be immediately deductible unless and until *all* of the following criteria, which are set out in paragraph 5.3 of the accounting standard for R&D (Financial Reporting Standard 13: *Accounting for Research and Development Activities*, or FRS-13), are satisfied:

- The product or process is clearly defined and the costs attributable to the product or process can be identified separately and measured reliably;
- The technical feasibility of the product or process can be demonstrated;
- The entity intends to produce and market, or use, the product or process;
- The existence of a market for the product or process or its usefulness to the entity, if it is to be used internally, can be demonstrated;
- Adequate resources exist, or their availability can be demonstrated, to complete the project and market or use the product or process.

11. Only development costs incurred *after* all the criteria are satisfied will *not* automatically be immediately deductible for tax.

12. Under this proposal, all R&D costs (except for fixed asset inputs) will be immediately deductible for tax unless and until the expenditure gives rise to an identifiable and valuable asset under FRS-13.

13. The proposal will not disadvantage any taxpayers, relative to existing tax treatment. Taxpayers who capitalise and amortise development expenditure for accounting may still argue that such expenditure is on revenue account for tax purposes.

14. Taxpayers will need to apply the criteria in paragraph 5.3 of FRS-13 in relation to R&D costs (including costs that are immaterial for accounting) in order to obtain the benefit of the proposal. Existing tax provisions will continue to apply to taxpayers who are not required to apply the paragraph 5.3 criteria and who choose not to.

15. By clarifying which expenditure is immediately deductible and which is not, there should be more certainty for taxpayers and fewer disputes between taxpayers and Inland Revenue. That should allow businesses to focus more on their business and less on their tax affairs.

Submissions

16. Submissions are invited on the proposals in this discussion paper. In particular, the Government wishes to receive views on issues such as the definitions of research and development, the form of the legislation, whether compliance with paragraph 5.3 of FRS-13 should be required both for tax and financial reporting, and the desirable application date.

17. Submissions may be made in electronic form to:

policy.webmaster@ird.govt.nz

Alternatively, submissions can be addressed to:

Research & development proposal
C/- General Manager
Policy Advice Division
Inland Revenue Department
P.O. Box 2198
WELLINGTON

18. Submissions should contain a brief summary of their main points and recommendations. They should be made by 26 January 2001.

PART II: SUMMARY OF CURRENT TAX TREATMENT

19. Three sets of provisions in the Income Tax Act 1994 permit the deduction of R&D expenditure - the general deductibility provisions in section BD 2, the specific deduction allowed for scientific research expenditure (section DJ 9), and the depreciation rules. Which of these provisions permits a deduction for an item of R&D depends on the nature of the expenditure.

General deductibility

20. The general deductibility provisions allow a taxpayer a deduction for expenditure if the expenditure is incurred in the income earning process and is not “of a capital nature”.

Case law

21. In relation to R&D expenditure, there are only two New Zealand cases that are helpful in considering the capital/revenue boundary, and both were decided by the Taxation Review Authority (TRA). The TRA in *Case N 55*¹ considered whether the holding company of a group of companies that manufactured farm machinery could deduct expenditure incurred in developing a prototype 4-wheel drive farm vehicle. The prototype was built but the project was abandoned. The TRA held that the expenditure was necessarily incurred in carrying on the taxpayer’s business but was capital expenditure and non-deductible under the general deductibility provisions. It was incurred with a view to bringing into existence an asset for the enduring benefit of the business. The TRA stated that, as a rule, a certain degree of ongoing product development expenditure would properly be treated as a revenue item.

22. *Case P 3*² involved a taxpayer who manufactured and sold an extensive range of safety helmets. If existing stock for an order were not suitable, the taxpayer’s engineers would modify existing samples to meet the customer’s need. The TRA held that the costs of modifying a product to meet a customer’s need did not relate to the capital structure of the business and were on revenue account. The TRA considered that such modifications may produce an enduring benefit in the form of a new product, but that was only a corollary of being related to a particular order or range of products. Thus the expenditure was still deductible as being on revenue account.

23. In the Australian case of *Goodman Fielder Wattie Ltd*³ Hill J. considered the deductibility of certain R&D expenditure of a taxpayer who was in the business of developing antibodies for application in the medical field. Hill J said that he did not need to consider whether the expenditure in question was deductible under the general deductibility provisions, because it would in any event be deductible under a specific provision allowing deductions for capital expenditure on scientific research. He said, however, that there was much to be said for the view that it was on revenue account. He noted that a company engaged in an enterprise involving new technology, where the nature of its activity requires ongoing research into product development, incurred expenditure that was recurrent, and part of the regular cost of its trading operations.

¹ 13 NZTC 3,434

² 14 NZTC 4,017

³ 91 ATC 4438

Timing of deduction

24. R&D expenditure that is deductible under the general deductibility provisions (or section DJ 9, discussed below) is deductible when it is incurred, subject to the application of the general timing rules in section EF 1 and EF 2. These provisions apply in limited circumstances to defer the timing of a deduction for expenditure that would otherwise be immediately deductible.

25. Section EF 1 broadly applies to expenditure on the purchase of goods that are not used, and services that are not performed in the year in which the expenditure is incurred. The deduction for such expenditure is deferred until the goods are used and services are performed.

26. Section EF 2 defers expenditure incurred in relation to revenue account property until the property is sold. Revenue account property is property the sale proceeds of which are taxed – such as a patent.

Section DJ 9 – deductibility of scientific research expenditure

27. Expenditure that is not deductible under the general deductibility provisions may be deductible under section DJ 9, which allows a deduction for expenditure incurred by a taxpayer in connection with scientific research carried out for the purpose of earning income.

28. Expenditure on depreciable assets used in the R&D process (such as plant and buildings) does not qualify for an immediate deduction. These inputs into the R&D process are depreciated in the same way as other capital assets of a business.

The depreciation rules

29. Capital R&D expenditure, which is not deductible under section DJ 9, is deductible over time if it results in a depreciable asset (such as an intangible asset listed in Schedule 17 of the Act, or a prototype) that is used or available for use in the income earning process. However, if such expenditure does not give rise to a depreciable asset, the expenditure may not be deductible at all. (This is called “black hole” expenditure.)

PART III: ACCOUNTING TREATMENT OF R&D EXPENDITURE

30. The treatment of R&D expenditure for financial reporting purposes is set out in FRS-13.

Nature of R&D expenditure covered by FRS-13

31. The commentary to FRS-13 notes that R&D activity is distinguished from non-research based activity by the presence or absence of an appreciable element of innovation.

R&D that can be expensed

32. FRS-13 differentiates between “research” costs and “development” costs. (See below for definitions and a discussion of the distinction between these.) Research costs are expensed in the period in which they are incurred. FRS-13 requires development costs to be recognised as an asset (meaning they are not immediately expensed) when, and only when, *all* of the following criteria are met:

- The product or process is clearly defined and the costs attributable to the product or process can be identified separately and measured reliably;
- The technical feasibility of the product or process can be demonstrated;
- The entity intends to produce and market, or use, the product or process;
- The existence of a market for the product or process or its usefulness to the entity, if it is to be used internally, can be demonstrated;
- Adequate resources exist, or their availability can be demonstrated, to complete the project and market or use the product or process.

33. Development costs in excess of the likely future economic benefits from the R&D are expensed even if they meet the criteria in paragraph 5.3.

34. To the extent the criteria above are not met, FRS-13 requires development costs to be expensed. If the criteria are met, FRS-13 requires development costs incurred from that point to be amortised and recognised as an expense on a systematic basis so as to reflect the pattern in which the related economic benefits are recognised. Amortisation begins when the product or process is available for sale or use.

Other factors in determining whether R&D can be expensed

Application of FRS-13

35. FRS-13 is not limited to an entity’s own R&D activities. FRS-13 applies to R&D activities carried out under contract for other entities where, under the substance of the arrangement, the contractor entity carries the risks and benefits of the R&D.

36. FRS-13 also provides the following exemptions, however, with regard to certain levels of R&D expenditure, certain types of R&D expenditure and certain entities.

- FRS-13 applies to all financial reports where such application is of material consequence. Where development costs are not material, therefore, they may be expensed even if they meet the criteria under paragraph 5.3.
- Entities that qualify for the exemption under the *Framework for Differential Reporting* may expense all R&D costs in the period in which they are incurred.
- FRS-13 does not cover the costs of exploration and development of oil, gas and mineral deposits in the extractive industries.

Other FRS-13 requirements

37. The following requirements of FRS-13 are also relevant:

- Development costs that have been expensed because the criteria in paragraph 5.3 were not met are not reinstated if the criteria are subsequently met.
- Development costs recognised as an asset must be reviewed at the end of each accounting period and written off if the criteria for asset recognition no longer apply or the costs are in excess of related future benefits. These written-off costs must be reinstated if the events leading to the write-off no longer apply.

“Research” and “development” defined

38. “Research” and “development” are defined in FRS-13 as:

“Research” is original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding.

“Development” is the application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services prior to the commencement of commercial production or use.

39. The distinction between research and development may be expressed as follows. Research activities typically involve investigation into something unknown in circumstances where there is a significant degree of uncertainty. In contrast, development activities typically involve elements of application of research findings in circumstances where the degree of uncertainty involved has been significantly reduced by the research activity.

40. FRS-13 provides a series of examples of activities that would typically be research, development or neither. The following are examples of research:

- research aimed at discovery of new knowledge;
- searching for applications of new research findings or other knowledge;
- formulation and design of possible new or improved product or process alternatives;
- testing in search of product or process alternatives.

41. Examples of activities that would typically be included in development are:
- evaluation of product or process alternatives;
 - design, construction and testing of pre-production prototypes and models;
 - design of tools, jigs, moulds, and dies involving new technology;
 - design, construction and operation of a pilot plant that is not of a scale economically feasible for commercial production.
42. Examples of activities that would typically be excluded from R&D are:
- engineering follow-through in an early phase of commercial production;
 - quality control during commercial production, including routine testing of products;
 - trouble-shooting in connection with breakdowns during commercial production;
 - routine, ongoing efforts to refine, enrich or otherwise improve on the qualities of an existing product;
 - adaptation of an existing capability to a particular requirement or customer's need as part of a continuing commercial activity;
 - seasonal or other periodic design changes to existing products;
 - routine design of tools, jigs, moulds and dies;
 - activities; including design and construction engineering, related to the construction, relocation, rearrangement, or start-up of facilities or equipment other than facilities or equipment whose sole use is for a particular R&D project.

Application of FRS-13 to different entities

43. Various categories of entity must comply with generally accepted accounting practice (GAAP) in their financial reports. (FRS-13 is part of GAAP, so a requirement to comply with GAAP is a requirement to comply with FRS-13, where relevant.) Entities required by law to comply with GAAP are issuers, companies other than exempt companies (see below), the Crown, government departments, Crown entities, local authorities and producer boards. Certain other entities may also be required to comply with GAAP under their own constitutional documents.

44. Therefore FRS-13 applies to a wide range of entities. As noted below, however, it does not apply to some entities, and certain other entities may be exempt from complying with the majority of its requirements under the *Framework for Differential Reporting*.

Exempt companies

45. "Exempt companies" are not required to comply with GAAP. Generally, exempt companies are small companies that are not part of a group of companies. Their assets must be under \$0.45 million, revenue under \$1 million, and they can neither be a subsidiary nor have a subsidiary. Overseas companies and companies that offer securities to the public cannot be exempt companies.

46. The requirements for financial reports of exempt companies are instead set out in the Financial Reporting Order 1994. This has limited detail but provides that non-current assets must be stated at cost or valuation, less aggregate depreciation or amortisation. This requirement may cover any development costs capitalised by the entity. However, no specific recognition and measurement requirements regarding R&D costs are set out in the Financial Reporting Order.

Entities that qualify for differential reporting

47. Entities that qualify for exemption under the *Framework for Differential Reporting* have a partial exemption from FRS-13. Such entities can expense all R&D under paragraph 2.2 of FRS-13, rather than comply with the requirements in section 5. Broadly, an entity qualifies for exemption if it does not have public accountability (that is, it has not issued securities to the public and does not have the power to tax, rate or levy to obtain public funds) and either:

- At balance date, all of its owners are members of the entity's governing body; or
- The entity is not large (an entity is large if it exceeds two of the following – annual total revenue of \$5 million, assets of \$2.5 million, or 20 employees).

48. Wholly owned subsidiaries of large companies qualify for exemption under the *Framework for Differential Reporting*.

49. Taking advantage of exceptions under the *Framework for Differential Reporting* is optional. Taxpayers that qualify for differential reporting may choose to comply fully with paragraph 5.3 of FRS-13, and capitalise development costs that meet the conditions set out in that paragraph.

Partnerships and sole traders

50. Partnerships and sole traders are not required by law to comply with GAAP. The professional obligations on members under the Rules of the Institute of Chartered Accountants of New Zealand should result in FRS-13 being complied with where an Institute member prepares the accounts. However, generally partnerships and sole traders will not be required to capitalise development costs that meet the criteria in paragraph 5.3.

PART IV: PROPOSED TAX TREATMENT

51. R&D that is expensed for accounting under paragraph 5.3 of FRS-13 will be deductible under the general deductibility provisions in section BD 2 provided the link with the income earning process is satisfied (and the deduction is not otherwise prohibited under section BD 2(2)(a) – (d) or (f)). These exclusions relate to private expenditure, expenditure incurred in deriving exempt income or income from employment, and expenditure specifically disallowed as a deduction.

52. Therefore all research expenditure, and development expenditure incurred up to the point that the criteria in paragraph 5.3 are satisfied will be deductible. Only development costs incurred *after* all the criteria are satisfied will *not* automatically be deductible as revenue account expenditure.

Timing of deduction

53. The timing of the deduction will be determined in accordance with normal rules, under which an expense is deductible when incurred, unless sections EF 1 or EF 2 apply. As noted earlier, these sections apply in limited circumstances to defer a deduction. Section EF 1 defers a deduction for the purchase of goods until the goods are used in deriving income, and defers a deduction for payment for services until the services are performed. Section EF 2 defers a deduction for the cost of revenue account property.

54. Other provisions in the Act will also apply as they normally do to revenue expenditure. For example, taxpayers who produce R&D for the purpose of sale may be subject to the trading stock rules and be required to include in income the value of their work in progress at year end. The effect of this requirement is to defer the deduction until the trading stock is sold.

Costs that are amortised for accounting

55. Normal tax treatment will apply to costs that are capitalised for accounting. Because the proposal will operate as a “safe harbour”, taxpayers who amortise costs for accounting may nevertheless argue that such costs are on revenue account for tax purposes.

56. If R&D costs that are amortised for accounting are considered to be on capital account for tax purposes, they will be immediately deductible under section DJ 9 if they are incurred in connection with “scientific research”. Some taxpayers argue that that term includes development expenditure. Section DJ 9 will remain as it is.

57. Alternatively, such costs will be amortised under the tax depreciation provisions, or may be “black hole” expenditure.

Entities that are not required to apply the criteria in paragraph 5.3 of FRS-13

58. Most entities are not required to apply the criteria in paragraph 5.3 of FRS-13. Only R&D that is expensed in accordance with paragraph 5.3 of FRS-13 will be automatically deductible under this proposal.

59. Entities that are not required to comply with paragraph 5.3, therefore, have two choices. If they choose to comply with paragraph 5.3, they will obtain the benefit of increased certainty of tax treatment. However, if they do not want to incur compliance costs in complying with paragraph 5.3, the existing tax treatment will continue to apply to them.

Costs that are not material for accounting

60. Under paragraph 2.3 of FRS-13, paragraph 5.3 of FRS-13 applies only where its application is of material consequence. This means that, if the amount of R&D expenditure incurred by a firm is not material, it may all be expensed for accounting. This amount may nevertheless be significant in fiscal terms, because what is “material” for accounting relates to the size of the entity.

61. It is proposed that, for tax purposes, taxpayers will need to apply the criteria in paragraph 5.3 of FRS-13 in relation to costs, irrespective of materiality.

Writing off, and reinstatement, of amortised costs

62. Under paragraph 5.14 and 5.15 of FRS-13, R&D costs that are amortised can be written down or written off if the criteria for recognition no longer apply. Such costs may be reinstated if the criteria subsequently do apply.

63. It is not proposed that tax follow FRS-13 in relation to costs that are amortised for accounting. (For example, the amortisation period for tax and accounting may differ.) Therefore amortised costs that are subsequently written off or down under paragraph 5.14 or 5.15 will not be immediately deductible under this proposal.

Definition of R&D

64. The FRS-13 definitions of “research” and “development” are discussed earlier in this paper. It is proposed that if activity falls within those definitions, taking into account the commentary on the definitions, it will be R&D for the purposes of the proposed tax amendment.

65. The definitions refer to *new* knowledge and *new or substantially improved* products and processes. This is explained in paragraph 4.4 of the commentary, which refers to the distinguishing feature of R&D – there is an appreciable element of innovation. To be R&D, the activity must depart from routine and break new ground. If it follows an established pattern, it is normally to be excluded.

66. The costs of creating a product that is new to the firm will not be R&D unless these conditions are met. For example, the making of a new sound recording by a recording company using standard techniques will not be R&D. Similarly, the writing of a new software programme using standard techniques will not be R&D. Also, the purchase of new technology is not in itself R&D.

Fixed asset inputs into the R&D process

67. Fixed asset inputs into the R&D process (such as vehicles, buildings and patents) will continue to be depreciated at tax depreciation rates rather than accounting depreciation rates. When no tax depreciation is allowed for fixed asset inputs (for example, intangibles not listed in Schedule 17, such as know-how or goodwill), no tax deduction will be available in relation to the acquisition of those assets.

R&D “black hole” expenditure

68. Expenditure that is not deductible at all is called “black hole” expenditure. Theoretically, some R&D expenditure will fall within this category – for example, development costs on capital account that do not give rise to a depreciable asset. In practice, however, it appears that taxpayers generally find a way to deduct black hole expenditure.

69. The proposal is likely to reduce the amount of any R&D expenditure that is black hole. R&D costs that do not lead to an asset will be expensed for accounting. They will, therefore, be immediately deductible for tax.

70. The Government accepts that black hole expenditure may still occur in theory. We have always stated that we would welcome actual examples showing the extent to which this occurs in practice. If it is demonstrated that substantial R&D expenditure will be black hole, the Government will consider that issue further.

Software

71. The Commissioner of Inland Revenue set out his views on the tax treatment of software development costs in 1993 in the *Tax Information Bulletin*, Vol. 4 No. 10. That item includes a discussion on the deductibility of the costs of developing software for in-house use. Broadly, pre-development costs are immediately deductible, and development expenses are capitalised until the project is completed and then depreciated over three years.

72. Certain software development costs will be affected by this proposal. Software R&D costs will be treated in the same way as any other R&D costs. Not all software development will be R&D for the purposes of FRS-13. In order to fall within FRS-13, there must be an appreciable element of novelty. The activity must depart from routine and break new ground.

Examples of the proposed tax treatment

73. The proposed tax treatment is best demonstrated by way of example:

Example 1***Prototype engine***

A Co is a car manufacturer that, for some years, has been in the process of developing a new car engine that is particularly efficient in fuel consumption. All expenditure on salaries and materials, and depreciation on assets used in the process, has been expensed to date, as the criteria in paragraph 5.3 of FRS-13 have not been met. Under this proposal, for tax purposes, the fixed asset costs will be depreciated at the tax depreciation rates. Other costs will be immediately deducted.

In 2000 the company builds a prototype and is satisfied that, with minor modifications, the engine will work. A Co intends to make those modifications, complete final trials and begin production. The company expects that it will reap significant future economic benefits from the sale of cars that run on the engine.

Building the prototype will be development as defined in FRS-13. The criteria for recognition as an asset are likely to be met in 2000. From this point onwards, the costs of the minor modifications will be capitalised and amortised for accounting. They are, therefore, not automatically immediately deductible for tax under this proposal.

Example 2***Software***

B Co is a jeweller that mines diamonds from its own mines. It hires a consultant to produce software that analyses details of the dimension and character of uncut diamond in order to select the cutting technique and maximise the value of the final jewellery. No existing software performs this function. The copyright in the software will belong to B Co, and the consultant is paid on an hourly basis rather than charging a success fee.

B Co carries the risks and benefits of the software development and is, therefore, entitled to use the proposal. It is likely that the software design will be development for the purposes of FRS-13, assuming there is an appreciable element of innovation.

For both tax and accounting, B Co can expense all fees paid to the consultant in connection with the software until the criteria in paragraph 5.3 are satisfied.

B Co does not need to apply the treatment of software development costs set out in *Tax Information Bulletin*, Vol.4 No. 10.

Example 3***Failed development***

A research company, C Co, has developed a genetically engineered low fat food product. Under FRS-13, depreciation and other costs have been expensed, as the existence of a market for the food has not been demonstrated. Using the tax treatment set out in this proposal, C Co depreciates the fixed assets and immediately deducts the other costs.

C Co now believes there is a potential opportunity to sell the product and commits to producing it commercially. Commercial production would be a significant extension to C Co's income-earning activities, and it considers expenses in connection with the project are on capital account under general tax principles. C Co carries out market research before starting commercial production to establish the existence of a market. The market research shows that the majority of New Zealanders will not eat genetically engineered food, and C Co aborts its production project.

The criteria for capitalising development costs in FRS-13 are not satisfied. To the extent that C Co treats the market research expenditure as development costs (see paragraph 4.12 of FRS-13) it will be expensed under FRS-13 in C Co's financial reports. It can, therefore, be expensed for tax purposes. The market research may previously have been treated as black hole expenditure.

Form of legislation

74. There are two possible ways of incorporating the proposal into legislation. The first would effectively involve copying the relevant part of the financial reporting standard into the Act. The second would involve referring to that relevant part in the Act.

Specific incorporation

75. This would involve incorporating into the Act the current wording of the definitions of "research" and "development", together with paragraphs 4.4 and 5.1 to 5.4 from FRS-13. Although this has the advantage of having all the tax rules relating to R&D within the Act, the courts could interpret that wording in a different way to wording in the financial reporting standard. As the proposal is intended to clarify the capital/revenue boundary for tax purposes by linking it to the capital/revenue boundary for accounting purposes, departures from the accounting standard should be kept to a minimum.

76. Further, the deliberately flexible wording of the financial reporting standard might not sit well in the Act.

Incorporation by reference

77. Cross-referencing to the financial reporting standard is the approach adopted in the trading stock rules. Section EE 5 refers to generally accepted accounting principles and, in particular, to Financial Reporting Standard 4 (Accounting For Inventories).

78. The main feature of this approach is that if the financial reporting standard changes, there is no need to change tax legislation unless the Government wishes to do so. We understand that before any financial reporting standard is amended, comprehensive consultation would be undertaken. This would give the Government time to amend the Act if necessary.

Preferred approach

79. The Government prefers incorporation by reference but welcomes submissions on this issue.

Compliance with paragraph 5.3 of FRS-13 for financial reporting purposes

80. The main argument for requiring alignment between tax and financial reporting is that the proposal will create pressure on FRS-13 as taxpayers seek to expense as much development expenditure as possible. The legal and commercial requirements imposed on taxpayers when reporting to their shareholders may counterbalance this pressure. This counterbalance will not exist if taxpayers are allowed to adopt FRS-13 paragraph 5.3 for tax purposes only.

81. The argument against requiring alignment is that it might be impractical and impose higher compliance costs in some cases.

82. Submissions are welcomed on this issue.

Fiscal risk from avoidance activity

83. The Government is concerned about recategorisation of expenditure as R&D, and avoidance schemes developing around R&D. In order to minimise the fiscal risk therefore, we propose to enable items to be excluded from the definition of R&D by regulation. This will enable the Government to move quickly against avoidance schemes. A similar approach to defining R&D was recently adopted in the United Kingdom in section 837A of the Income and Corporation Taxes Act 1988.

84. The Government may also consider taking specific anti-avoidance measures to complement section BG 1.

Tax audit

85. Two areas of dispute could arise between Inland Revenue and the taxpayer. The first is whether the expenditure is R&D.

86. The second is whether the criteria in paragraph 5.3 are satisfied. It is a matter of judgement when the criteria for amortisation in that paragraph are satisfied. Taxpayers will be in the best position to make those judgements. They are likely to be challenged by Inland Revenue only when they are clearly not sustainable.

87. Taxpayers will not be able to obtain a binding ruling on whether their accounting treatment of R&D costs complies with paragraph 5.3 of FRS-13. The Commissioner cannot issue a binding ruling if the application for a ruling would require him to form an opinion as to a generally accepted accounting principle or a commercially acceptable practice (sections 91E(4)(j) and 91F(4)(h) of the Tax Administration Act 1994).

PART V: OTHER ISSUES

Full deductibility of R&D expenditure

88. Some taxpayers have asked why the Government does not move now to allow immediate deductibility of all R&D, instead of proceeding with the FRS-13 proposal in tandem with the new funding for grants announced in the Budget.

89. With both options there is the fiscal risk of reclassification of expenditure as R&D. This is most likely to occur in relation to activities at the boundary between development and production. The FRS-13 proposal relies on the accounting requirement to amortise development expenditure at the end of the R&D process to reduce that fiscal risk. In effect, there would be a buffer between immediately deductible development expenditure, and production expenditure, which would be less favourably treated for tax purposes. That buffer is development expenditure that is amortised because it satisfies the criteria in paragraph 5.3 of FRS-13.

90. If the alternative approach, immediate deductibility of all R&D costs, were adopted there would be no buffer between immediately deductible development expenditure and costs at the development/production boundary that are more properly classified as production. It would be important to define the development/production boundary with as much precision as possible. This approach to the definition is generally adopted in other jurisdictions.

91. If we were to consider full deductibility, one example that the Government could look to is the Australian tax definition of R&D, attached as an annex to this paper. This contains a list of activities which are excluded from R&D. Some of the items in that list seek to clarify the development/production boundary – for example, the exclusion for pre-production activities such as the demonstration of commercial viability, tooling-up and trial runs. (Other items, such as research into the social sciences, arts or humanities, are presumably excluded because the Australian government wishes to target its tax concession to science and technology-based activities.)

Legislative timetable and application date

92. It is likely that any legislation to implement the proposal will not be enacted until the latter part of 2001. Ordinarily, this would mean application from the 2002-2003 income year. However, the Government will consider applying the amendments from the beginning of the 2001-2002 income year if taxpayers preferred this.

DEFINITION OF R&D IN AUSTRALIAN TAX LEGISLATION (INCOME TAX ASSESSMENT ACT 1936)

Section 73B(1) “Research and development activities” means

- (a) systematic, investigative and experimental activities that involve innovation or high levels of technical risk and are carried on for the purpose 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).

Section 73B(2A) For the purposes of the definition of “research and development activities” in subsection (1), activities carried on by or on behalf of an eligible company by way of the development of computer software shall not be taken to be systematic, investigative and experimental activities unless the computer software is developed for the purpose, or for purposes that include the purpose, of sale, rent, licence, hire or lease to 2 or more non-associates of the company (counting a non-associate of the company and the associates of such a non-associate together as one person).

Section 73B(2B) For the purposes of the definition of *research and development activities* in subsection (1):

- (a) activities are not taken to involve innovation unless they involve an appreciable element of novelty; and
- (b) activities are not taken to involve high levels of technical risk unless:
 - (i) 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
 - (ii) 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 (based on principles of physical, biological, chemical, medical, engineering or computer sciences) from hypothesis to experiment observation and evaluation, followed by logical conclusions.

Section 73B(2C) For the purposes of this section, the following activities are taken not to be systematic, investigative and experimental activities:

- (a) market research, market testing or market development, or sales promotion (including consumer surveys);
- (b) quality control
- (c) prospecting, exploring or drilling for minerals, petroleum or natural gas for the purpose of discovering deposits, determining more precisely the location of deposits or determining the size or quality of deposits;
- (d) the making of cosmetic modifications or stylistic changes to products, processes or production methods;
- (e) management studies or efficiency surveys;
- (f) research in social sciences, arts or humanities;
- (g) the making of donations;
- (h) pre-production activities such as demonstration of commercial viability, tooling-up and trial runs;
- (i) routine collection of information, except as part of the research and development process;
- (j) preparation for teaching;
- (k) commercial, legal and administrative aspects of patenting, licensing or other activities;
- (l) activities associated with complying with statutory requirements or standards, such as the maintenance of national standards, the calibration of secondary standards and routine testing and analysis of materials, components, products, processes, soils, atmospheres and other things;
- (m) specialised routine medical care;
- (n) any activity related to the reproduction of a commercial product or process by a physical examination of an existing system or from plans, blueprints, detailed specifications or publicly available information.