Institute of Chartered Accountants of New Zealand

FINANCIAL REPORTING STANDARD NO. 13
1995

ACCOUNTING FOR RESEARCH AND DEVELOPMENT ACTIVITIES

Issued by the Financial Reporting Standards Board
Institute of Chartered Accountants of New Zealand

Approved February 1995 by the Accounting Standards Review Board under the Financial Reporting Act 1993

CONTENTS

This Standard replaces SSAP-13: Accounting for Research and Development Activities (1991), although that Statement will continue to apply until the completion of accounting periods which end prior to 30 September 1995.

This Standard should be read in the context of the Explanatory Foreword to General Purpose Financial Reporting published by the Council, Institute of Chartered Accountants of New Zealand.

The Accounting Standards Review Board (the Board) has approved FRS-13: Accounting for Research and Development Activities, for the purposes of the Financial Reporting Act 1993, to apply to reporting entities, the Crown and all departments, Offices of Parliament and Crown entities (each of which is defined in the Act) other than as expressly exempted by the terms of the Standard.

The Board has also approved this Standard to apply to local authorities (as defined in the Act) from 1 July 1998.

1 INTRODUCTION

COMMENTARY

1.1 This Standard deals with accounting for research and development activities in general purpose financial reports.

1.2 An entity undertakes a programme of creative work to increase its stock of scientific and technical knowledge and to devise new applications which will contribute to the maintenance of its business and competitive position. The accounting treatment and disclosure of the costs of research and development activities are therefore important for users of financial reports.

1.3 An entity may carry out research and development activities under contract for another entity. When the substance of the arrangement is such that the risks and benefits associated with the research and development activities are, or will be, transferred to the other entity, the entity conducting the research and development activities accounts for the costs in accordance with FRS-4: *Accounting for Inventories*, or FRS-14: *Accounting for Construction Contracts*. The recipient of the risks and benefits accounts for its costs in accordance with this Standard.

1.4 When the substance of the arrangement with the other entity is such that the risks and benefits associated with the research and development activities are not, or will not be, transferred to others, the entity conducting the research and development activities accounts for the costs in accordance with this Standard. Factors which indicate that the risks and benefits of research and development activities are not transferred to others include:

(a) the entity conducting the research and development activities is contractually obligated to repay any of the funds provided by the other entity regardless of the outcome of the research and development activities; and

(b) even though the contract does not require the entity conducting the research and development activities to repay any of the funds provided by the other entity, repayment could be required at the option of the other entity or the surrounding conditions indicate that repayment is probable.

1.5 Financial reporting standards are paragraphs in bold type-face in this Standard. Where appropriate, interpretive commentary paragraphs in plain type-face follow the financial reporting standards.

2 APPLICATION

STANDARD

2.1 This Standard applies to the general purpose financial reports of all entities except where exempted by paragraphs 2.2 and 2.4.

2.2 Entities which qualify for exemption in accordance with the *Framework for Differential Reporting* are not required to comply with section 5 of this

Standard. Where this exemption is applied, all research and development costs shall be recognised as an expense in the period in which they are incurred.

2.3 The financial reporting standards set out in this Standard shall apply to all financial reports where such application is of material consequence. A statement, fact, or item is material if it is of such a nature or amount that its disclosure, or the method of treating it, given full consideration of the circumstances applying at the time the financial report is completed, is likely to influence the users of the financial report in making decisions or assessments.

2.4 This Standard does not apply to the costs of exploration and development of oil, gas and mineral deposits in the extractive industries. However, this Standard does apply to the costs of other research and development activities in such industries.

2.5 This Standard applies to general purpose financial reports covering periods ending on or after 30 September 1995.

3 STATEMENT OF PURPOSE

COMMENTARY

3.1 The purpose of this Standard is:

(a) to establish criteria for distinguishing research and development activities from other activities;

(b) to establish the accounting treatments of research and development costs; and

(c) to specify the minimum disclosures of those costs in financial reports.

4 DEFINITIONS

STANDARD

The following terms are used in this Standard with these meanings:

4.1 "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.

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

COMMENTARY

4.3 Although the nature of activities encompassed by research and development is generally understood, it may be difficult in practice to identify those activities in particular instances. While the above broad definitions should assist entities in their classification of research and development activities, the appropriate distinction is often dependent on the type of business, its organisation and the type of projects undertaken.

4.4 Research and development activity is distinguished from non-research based activity by the presence or absence of an appreciable element of innovation. If the activity departs from routine and breaks new ground it is normally to be included; if it follows an established pattern it is normally to be excluded.

4.5 The following are examples of activities that would typically be included in research:

(a) research aimed at discovery of new knowledge;

(b) searching for applications of new research findings or other knowledge;

(c) formulation and design of possible new or improved product or process alternatives;

(d) testing in search of product or process alternatives.

4.6 The following are examples of activities that would typically be included in development:

(a) evaluation of product or process alternatives;

(b) design, construction and testing of pre-production prototypes and models;

(c) design of tools, jigs, moulds, and dies involving new technology;

(d) design construction and operation of a pilot plant that is not of a scale economically feasible for commercial production.

4.7 The following are examples of activities that typically would be excluded from research and development:

(a) engineering follow-through in an early phase of commercial production;

(b) quality control during commercial production, including routine testing of products;

(c) trouble-shooting in connection with breakdowns during commercial production;

(d) routine, ongoing efforts to refine, enrich or otherwise improve on the qualities of an existing product;

(e) adaptation of an existing capability to a particular requirement or customer’s need as part of a continuing commercial activity;

(f) seasonal or other periodic design changes to existing products;

(g) routine design of tools, jigs, moulds and dies;

(h) 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 research and development project.

STANDARD

4.8 "Research and development costs" shall comprise all costs that are directly attributable to research and development activities or that can be allocated on a reasonable basis to such activities.

COMMENTARY

4.9 Research and development costs include when applicable:

(a) the salaries, wages and other related costs of personnel engaged in research and development activities;

(b) the costs of materials and services consumed in research and development activities;

(c) the depreciation of equipment and facilities to the extent that they are used for research and development activities;

(d) overhead costs related to specific research and development activities;

(e) other costs related to research and development activities such as amortisation of patents and licences.

4.10 In order to achieve a reasonable degree of comparability between entities and between accounting periods of the same entity, it is desirable to separate research and development costs from other costs and to distinguish between research costs and development costs.

4.11 Costs incurred to maintain production or to promote sales of existing products are excluded from the costs of research and development activities. Thus the costs of routine or periodic minor modifications of existing products, production lines, manufacturing processes and other ongoing operations are excluded. So, too, are the costs of carrying out market research of a routine or promotional nature.

4.12 However, market research activities undertaken prior to the commencement of commercial production to establish the usefulness of a product or the existence of a potential market may be similar to development activities. Thus, the related costs may be treated in the same way as development costs and recognised as an asset when the criteria specified in paragraph 5.3 are met.

5 FINANCIAL REPORTING

Recognition of Research Costs

STANDARD

5.1 Research costs shall be recognised as an expense in the period in which they are incurred.

Recognition of Development Costs

STANDARD

5.2 The development costs of a project shall be recognised as an expense in

the period in which they are incurred unless the criteria for asset recognition identified in paragraph 5.3 are met.

5.3 The development costs of a project shall be recognised as an asset when all of the following criteria are met:

(a) the product or process is clearly defined and the costs attributable to the product or process can be identified separately and measured reliably;

(b) the technical feasibility of the product or process can be demonstrated;

(c) the entity intends to produce and market, or use, the product or process;

(d) 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; and

(e) adequate resources exist, or their availability can be demonstrated, to complete the project and market or use the product or process.

5.4 The development costs of a project recognised as an asset shall not exceed the amount that is probable of recovery from related future economic benefits, after deducting further development costs, related production costs, and selling and administrative costs directly incurred in marketing the project.

COMMENTARY

5.5 In the case of development costs, while an asset might exist, the asset recognition criteria may not be met because there is insufficient probability that future economic benefits will be realised as a result of specific development expenditure. In such circumstances, development costs are recognised as an expense in the period in which they are incurred.

5.6 In considering recognition of development costs either as an expense or an asset, reference is to be made to the *Statement of Concepts for General Purpose Financial Reporting* for:

- definition of *assets*;
- the essential characteristics of assets;
- criteria for recognition of assets;
- definition of *expenses*; and
- criteria for recognition of expenses.

5.7 Where development costs are incurred in respect of a number of identified products or processes, those development costs are to be allocated to each of the identified products or processes. Once allocated, the treatment of those development costs is to be determined by reference to paragraphs 5.2 and 5.3 on an individual product or process basis.

5.8 The economic benefits expected to arise from development activities include revenue from the sale of the product or process, and cost savings or other benefits resulting from the use of the product or process by the entity itself. Estimates of the revenues and cost savings are based on future prices and costs if it is probable that future selling prices will be lower than those prevailing at the end of the period, and those lower selling prices will not be offset fully by additional cost savings. In other cases, estimates of revenues and cost savings are based on prices or conditions prevailing at the end of the period.

5.9 The recognition of an asset in accordance with paragraph 5.3 involves an assessment of the uncertainties that inevitably surround development activities. Such uncertainties are taken account of by the exercise of care when making the judgements needed in determining the amount of development costs to be recognised as an asset. The exercise of such judgement should not permit the deliberate understatement of assets.

Amortisation of Development Costs

STANDARD

5.10 The amount of development costs recognised as an asset shall 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.

COMMENTARY

5.11 The relationship between development costs and the economic benefits that the entity expects to derive can usually be determined only broadly and indirectly because of the nature of the development activities. When amortising development costs on a systematic basis so as to reflect the pattern in which the related economic benefits are recognised, the entity makes reference to:

(a) the revenue or other benefits from the sale or use of the product or process;

(b) the time period over which the product or process is expected to be sold or used.

Amortisation commences when the product or process is available for sale or use.

5.12 Technology and economic obsolescence create uncertainties that restrict the outputs and the time period over which the development costs are to be allocated. Furthermore, it is usually difficult to estimate the further costs and related future economic benefits of a new product or process beyond a short period. When the useful life of the asset cannot be determined reliably, the amortisation period is not normally to exceed five years unless a longer period, not exceeding twenty years from the date of initial recognition, can be justified. The maximum amortisation period of twenty years was chosen because the planning horizon adopted by an entity for its operations is unlikely to exceed twenty years, and projections of the life of an asset beyond the entity’s planning period are not normally sufficiently reliable to permit a longer amortisation period.

Review of Development Costs

STANDARD

5.13 The development costs of a project recognised as an asset shall be reviewed at the end of each accounting period.

5.14 When the criteria in paragraph 5.3, which previously justified the recognition of the development costs as an asset, no longer apply, the unamortised balance shall be written off and recognised immediately as an expense.

5.15 When the amount of the development costs probable of recovery from related future economic benefits, after deducting further development costs, related production costs, and selling and administrative costs directly incurred in marketing the project, is exceeded by the unamortised balance of such costs, the excess shall be written down and recognised immediately as an expense.

Reinstatement

STANDARD

5.16 The amount of development costs written off or written down in accordance with paragraphs 5.14 and 5.15 shall be written back when the circumstances and events that led to the write-off or write-down cease to exist, and there is persuasive evidence that the new circumstances and events will persist for the foreseeable future. The amount written back shall be reduced by the amount that would have been recognised as amortisation in accordance with 5.10 had the write-off or write-down not occurred. The amount written back shall be recognised as a reduction in the amount of development costs recognised as an expense for the period.

COMMENTARY

5.17 The circumstances or events that led to the write-off or write-down of development costs in accordance with paragraphs 5.14 and 5.15 may change such that the amount of the write-off or write-down once again qualifies for recognition as an asset. In such a case, the amount is written back.

5.18 The amount of the write-off or write-down that is written back is reduced by the amount of amortisation that would have been recognised as an expense during the period in which the asset was written off or written down. This is necessary when, for example, the entity has recognised revenue or other benefits from the sale or use of the product or process during the period in which the asset was written off or written down. The total carrying amount of the asset is always limited by paragraph 5.4.

Disclosure

STANDARD

5.19 The financial report shall disclose:

(a) the accounting policies adopted for research and development costs;

(b) the amount of research and development costs recognised as an expense in the period;

(c) the amortisation methods used;

(d) the useful lives or amortisation rates used; and

(e) a reconciliation of the balance of unamortised development costs at the beginning and end of the period showing:

- **(i) development costs recognised as an asset in accordance with paragraph 5.3;**
- **(ii) development costs recognised as an expense in accordance with paragraphs 5.10, 5.14 or 5.15;**
- **(iii) development costs allocated to other asset accounts; and**
- **(iv) development costs written back in accordance with paragraph 5.16, together with an explanation of the change in circumstances that led to the write-back as an asset in accordance with that paragraph.**

COMMENTARY

5.20 An entity is to include in its financial report a description of its research and development activities. There is to be disclosure of the circumstances or events that led to the recognition of an expense for the impairment of development costs in accordance with paragraphs 5.14 or 5.15, and the reinstatement of development costs in accordance with paragraph 5.16.

APPENDIX

Comparison of FRS-13 with International and Australian Accounting Standards

This comparison appendix, which was prepared as at 1 February 1995 and deals only with significant matters in the standards, is produced for information purposes only and does not form part of the standards in FRS-13. The International Accounting Standards Committee.

The International and Australian accounting standards comparable with FRS-13 are:

- IAS-9 (1993): *Research and Development Costs*;
- AASB 1011 (1987): *Accounting for Research and Development Costs*; and
- AAS-13 (1983): *Accounting for Research and Development Costs*.

The following summarises the significant matters in the above standards.

Recognition of costs as an asset

The four standards require generally that research and development costs be expensed as incurred. FRS-13 and IAS-9 require development costs to be recognised as an asset and amortised under specific conditions. Both AASB 1011 and AAS-13 allow research and development costs to be deferred and amortised, depending on the extent of certainty that these costs will be recovered in future reporting periods. FRS-13 and IAS-9 are more specific than the Australian standards in respect of these conditions.

Reinstatement of previously expensed costs

AASB 1011 and AAS-13 state that when the uncertainties which led to the recognition of development costs as an expense no longer exist, such costs should not be reinstated as an asset. IAS-9 and FRS-13 allows the reinstatement of development costs originally recognised as an asset when the circumstances and events that led to their write-off or write-down no longer exist.

Accounting policy

FRS-13, IAS-9 and AAS-13 require the accounting policies adopted for the costs of research and development activities to be disclosed. AASB 1011 requires disclosure if material.

Government grants

AASB 1011 and AAS-13 include requirements for the treatment of government or other grants received in relation to research and development costs. In New Zealand, grants are the subject of a separate financial reporting standard.

Amortisation period

In IAS-9, developments costs are normally amortised over a period not exceeding five years. In AASB 1011 and AAS-13 the period of amortisation is determined by reference to the expected benefits. In FRS-13, an amortisation period not exceeding five years is indicated unless a longer period not exceeding twenty years can be justified.

HISTORY

Previously issued accounting standards superseded by this Financial Reporting Standard:

SSAP-13: Accounting for Research and Development Activities (issued March 1991 and effective for periods beginning on or after 1 July 1991).

SSAP-13: Accounting for Research and Development Activities (issued August 1981 and effective for periods beginning on or after 1 October 1981).

FRS-13