# **Accounting for Research and Development Costs**

Prepared by the **Accounting Standards Board** of the **Australian Accounting Research Foundation** 

The National Councils of The Institute of Chartered Accountants in Australia and the Australian Society of Accountants issue the following Statement of Accounting Standards relating to "Accounting for Research and Development Costs". It is operative in respect of any accounting period ending on or after 31 December 1983.

Issued by the **Australian Society of Accountants** and **The Institute of Chartered Accountants in Australia** 

### **CONTENTS**

i de la companya de	Paragraphs
INTRODUCTION	1-3
DEFINITIONS	. 4
DISCUSSION	
Activities to be Identified as Research and	
Development	5-10
Elements of Costs to be Identified with Research and	
Development Activities	. 11-13
Accounting Treatment of Research and Development	
Costs	
Research	-
Development	. 22-23
Research and Development Costs Previously Written	2.4
off	. 24
Amortisation of Deferred Research and Development	. 25
CostsAccounting Treatment of Government Grants Received	
in Relation to Research and Development	
Disclosure of Research and Development Information	
Disclosure of Research and Development Information	27-20
ACCOUNTING STANDARDS	
Definitions to be Read is Part of Standards	. 29
Elements of Costs to be Identified with Research and	2)
Development Activities	. 30
Accounting Treatment of Research and Development	
Costs	31-34
Accounting Treatment of Government Grants Received	
in Relation to Research and Development	
Research and Development Costs Previously Written	
off	. 37
Disclosure of Research and Development Information	
Transitional Arrangements	. 39

COMPATIBILITY WITH INTERNATIONAL ACCOUNTING STANDARD IAS 9

#### INTRODUCTION

- The objectives of this Statement are to ensure that financial statements provide useful information about the costs of research and development activities and to reduce the number of alternative accounting and reporting practices currently followed with respect to these costs.
- 2 This Statement establishes standards for:
  - (a) the activities to be identified as research and development;
  - (b) the elements of costs to be associated with research and development activities;
  - (c) the methods of accounting for research and development costs:
  - (d) the treatment of government grants received in relation to research and development; and
  - (e) the disclosure of information related to research and development costs.
- 3 This Statement does not apply to the cost of:
  - research and development activities conducted for others under contract; and
  - (b) specialised activities, in extractive industries, related to the exploration for and extraction of oil and natural gas reserves and mineral deposits.

The Statement does apply, however, to those activities in the extractive industries which are comparable in nature to the research and development activities of other business enterprises.

#### **DEFINITIONS**

- **4** For the purposes of this Statement:
  - (a) "Research" means planned investigation undertaken with the hope of gaining new scientific or technical knowledge and understanding which will be useful in developing a new product or service (hereinafter "product"), or a new process or technique (hereinafter "process"), or in bringing about a significant improvement to an existing product or process.

(b) "Development" means the translation of research findings or other knowledge into a plan or design for a new product or process or for a significant improvement to an existing product or process.

#### **DISCUSSION**

#### Activities to be Identified as Research and Development

- Identifying the activities to be classified as research and development is important in accounting for research and development costs. If these activities are not identified on a consistent and relatively uniform basis, comparative analysis of financial statements will be adversely affected.
- 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. This difficulty will be particularly apparent in segregating development activities from production activities. This Statement provides broad definitions which should assist entities in their classification of research and development activities.
- 7 The following are examples of activities that typically would 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; and
  - (d) testing in search for product or process alternatives.
- The following are examples of activities that typically would 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; and

- (d) design, construction, and operation of a pilot plant that is not of a scale economically feasible for commercial production.
- 9 The following are examples of activities that typically would be excluded from research and development in accordance with paragraphs 4(a) and 4(b):
  - (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 break-downs during commercial production;
  - (d) routine, on-going efforts to refine, enrich or otherwise improve upon 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; and
  - (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.
- Routine or promotional market research and market testing activities are not in the nature of research and development activities. However, market research undertaken to establish the existence and extent of a potential market, prior to the commencement of commercial production, is similar in nature to development and may be treated as a development activity.

#### <u>Elements of Costs to be Identified with Research and Development</u> Activities

In order to achieve a reasonable degree of comparability among entities and over time for a particular entity, it is important that the elements comprising research and development costs be identified

- with research and development activities on a consistent and uniform basis. Although it is not practicable to specify in detail the elements of research and development costs which would be applicable to all entities, it is possible to specify the broad cost elements which are likely to have general applicability.
- The cost of materials and services consumed in research and development activities, and the salaries, wages and other related costs of personnel engaged in research and development activities ought to be included as research and development costs. Where other entities have incurred costs on research and development activities on behalf of the entity and have charged the entity for reimbursement, such costs also ought to be included as research and development costs. In addition, those other costs that can be directly attributed to research and development activities and that can be identified with specific projects ought to be included.
- The cost of the service potential of assets consumed in research and development activities ought to be included as research and development costs. This would include the depreciation of equipment and facilities, to the extent that they are used for research and development activities, and the amortisation of patents and licences, to the extent that they are related to research and development activities.

#### Accounting for Research and Development Costs

- The costs of research and development activities could be treated, for accounting purposes, as an expense and be charged to the profit and loss account in the period in which they are incurred, or be deferred and amortised over future periods in order to match the costs of the activities with the benefits which derive from them.
- 15 Costs incurred during the period ought to be deferred only to the extent that future benefits deriving from those costs are expected, beyond any reasonable doubt, to equal or exceed those costs, any previously deferred costs, and any future costs necessary to give rise to the future benefits. Future costs may include production, selling and administration costs and additional research and development costs.
- The nature of most research and development activities is such that at the time costs are incurred the amount and timing of future benefits may be too improbable to justify deferral. However, there may be certain instances where the costs warrant deferral.
- Whether or not particular research and development costs could be expected to meet the test for deferral will depend to a large extent

on the nature of the activities to which they relate. It is more likely that the costs of development activities would meet the test than the costs of research activities.

#### Research

- Research activities are undertaken in the early stages of an entity's research and development program and are concerned with, in general terms, original investigation. As such, the activities will not normally be associated with identifiable projects and the relationship between the costs incurred on these activities and any resulting future benefits would normally be distant. However, on rare occasions the costs of certain research activities may reasonably be expected to give rise to future benefits and, therefore, may meet the test for deferral.
- 19 Research activities can be segregated into two types basic research and applied research.
- Basic research can be broadly defined as original investigation directed primarily towards the advancement of knowledge. It is undertaken without a specific practical aim or application and, consequently, there would rarely exist any relationship between costs incurred on these activities and resulting future benefits. The view adopted in this Statement is that the costs of basic research ought to be treated as costs incurred by an entity in carrying out its revenue earning process during a period. As such, these costs ought to be charged to expense in the period in which they are incurred.
- 21 Applied research can be broadly defined as original investigation directed primarily towards solving recognised practical problems. Unlike basic research it is undertaken with a specific practical aim or application. Normally, at the time costs are incurred on applied research activities, any future benefits would be too uncertain to warrant deferral of the costs. Thus, the view adopted in this Statement is that the costs of applied research activities ought, normally, to be written off when incurred. However, because applied research activities are undertaken with specific practical objectives they may, on rare occasions, be associated with identifiable projects and a discernible relationship may exist between these projects and probable future benefits from a successfully marketed product or service or a successful process. In these cases, if the costs of applied research activities meet the test outlined in paragraph 15 they ought to be deferred and amortised over future periods.

#### Development

- Development activities are undertaken with specific commercial objectives and involve the translation of research findings and other scientific knowledge into commercially exploitable products and processes. These activities can be associated with identifiable projects and there may be a reasonable probability of future benefits, whether in the form of increased revenues or reduced costs, arising from such projects. Thus, development costs will meet the test for deferral more often than will research costs.
- The likelihood of future benefits arising from particular development projects will vary, depending on the type of project and the prospects for commercial success. In those cases where the expected future benefits are too uncertain to justify carrying the expenditure forward, the costs ought to be treated as an expense and charged to the profit and loss account as incurred.

#### Research and Development Costs Previously Written Off

Research and development costs which did not previously meet the test for deferral, and were consequently written off in accordance with the provisions of this Statement, ought not to be written back in the light of subsequent events.

#### Amortisation of Deferred Research and Development Costs

The deferred amount of any research and development costs ought to be amortised over accounting periods in order to match such costs with related benefits. Amortisation would commence with the commercial production of the product(s) or process(es) and the basis of amortisation employed ought to be determined by reference to the benefits expected to arise from the sale or use of the product(s) or process(es).

## Accounting Treatment of Government Grants Received in relation to Research and Development

Where government grants are received or receivable by an entity as reimbursement for costs incurred on research and development activities, the accounting treatment of such grants would depend on the accounting treatment of the costs incurred. Where the costs are deferred, the grant ought to be deducted from the carrying amount of the asset. Where the costs are written off the grant ought to be credited to the profit and loss account.

#### Disclosure of Research and Development Information

27 Information about research and development activities may be useful to financial statement users in predicting the future

performance of an entity. Quantitative information would enable financial statement users to consider the significance of research and development activities for an entity and to make comparisons between entities.

28 Because of the potential uncertainty relating to the timing of any future benefits from research and development costs, disclosure of the basis of amortising any deferred costs may also be useful information to financial statement users.

ACCOUNTING STANDARDS

#### Definitions to be Read as Part of Standards

29 The definitions contained in paragraph 4 should be read as forming part of the accounting standards set out in this Statement.

<u>Elements of Costs to be Identified with Research and Development Activities</u>

- 30 Research and development costs should include:
  - (a) the cost of materials and services consumed in research and development activities;
  - (b) the salaries, wages and other related costs of personnel engaged 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) the amortisation of other assets, such as patents and licences, to the extent that they are related to research and development activities;
  - (e) costs incurred for the entity by other entities on research and development activities, and charged to the entity; and
  - (f) other costs that can be directly attributed to research and development activities and can be identified with specific projects.

Accounting Treatment of Research and Development Costs

- Research costs and development costs should be charged to expense as incurred, except to the extent that they meet the criterion for deferral specified in paragraph 32.
- Costs incurred during the period on research and development projects should be deferred to future periods only to the extent that future benefits are expected, beyond any reasonable doubt, to equal or exceed those costs, any previously deferred costs, and any future costs necessary to give rise to the future benefits.
- Operator of the product(s) or process(es).

  Deferred research and development costs should be amortised over future accounting periods in order to match such costs with related benefits. This should commence with the commercial production of the product(s) or process(es) and be on the basis of, where possible, the sale or use of the product(s) or process(es).
- Research and development costs deferred in a previous period should regularly be reviewed. When the criterion for deferral is no longer met, the unamortised balance should be charged to the profit and loss account for the period. When the criterion for deferral continues to be met but the unamortised balance of the deferred costs exceeds the expected future benefits, less estimated related costs, the amount of the excess should be charged to the profit and loss account of the period.

<u>Accounting Treatment of Government Grants Received in Relation to Research and Development</u>

- Where a government grant is received or receivable in relation to research and development costs which have been deferred, the grant should be deducted from the carrying amount.
- Where a government grant is received or receivable in relation to research and development costs which have been written off during this or a prior period, the grant should be credited to the profit and loss account.

Research and Development Costs Previously Written Off

Research and development costs which did not previously meet the criterion for deferral, and were written off in accordance with paragraph 31, should not be written back in the light of subsequent events.

Disclosure of Research and Development Information

38 The financial statements should disclose:

- (a) the amount of deferred research and development costs at the end of the period; and
- (b) the basis for amortising any deferred research and development costs.

#### **Transitional Arrangements**

The provisions of this Statement apply to research and development costs incurred subsequent to the date on which this Statement becomes operative and to any unamortised research and development costs carried in the balance sheet at that date.

#### COMPATIBILITY WITH INTERNATIONAL ACCOUNTING STANDARD IAS 9

In most respects, the standards set out in this Statement are consistent in substance with those set out in IAS 9 issued by the International Accounting Standards Committee. However, the standards are inconsistent to the extent that IAS 9 requires:

- (a) all research costs to be charged to expense; and
- (b) disclosure of:
  - (i) the amount of research and development costs charged to expense; and
  - (ii) the movement in unamortised deferred development costs.

The Councils of The Institute of Chartered Accountants in Australia and the Australian Society of Accountants have decided that, in the respects referred to above, IAS 9 is not appropriate for Australian practice at the present time.