



# Research and development concessions

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## 🌀 Changes to tax treatment of research and development expenditure

### 🌀 Tax Determination TD 98/1

In an edition of the journal devoted to technology issues it would be appropriate to discuss the tax concessions for expenditure incurred on research and development activities.

Section 73B provides a tax deduction equal to 125% for certain expenditure incurred on research and development activities. No deduction is allowable if the aggregate research and development expenditure is less than \$20,000. To be eligible for the concessions, a company must register with the Industry Research and Development Board. The application for registration must contain details of the research and development activities conducted.

Expenditure on items of plant that are for use exclusively for research and development activities by and on behalf of the company is deductible in equal instalments over three years at a rate of 125%. Expenditure on core technology is deductible at 100% but the allowable deduction for particular core expenditure in a year of income cannot exceed one third of the research and development expenditure incurred on the relevant core technology.

If the conditions for deductibility under s 73B are not satisfied, research and development expenditure incurred by a business may be deductible under the general deduction provisions, but generally no deduction would be available, because the expenditure would be of a capital nature.

## Announced changes to tax treatment of research and development expenditure

With effect from 29 January 2001, the

definition of 'research and development activities' will be changed:

- by requiring that all claims meet both the 'innovation' and 'high technical risk' tests. Under the present definition it is sufficient if the activities involve either innovation or technical risk.
- the effect of existing s 73B(2C) is that certain listed activities are not claimable as core R & D activities, although they may be claimable as supporting activities where they have a sufficient nexus to an eligible core activity. Examples of the excluded activities are market research and testing, quality control, prospecting, exploring or drilling, cosmetic or stylistic changes, management studies or efficiency surveys, research in social sciences, arts or humanities, donations, pre-production activities (demonstrating commercial viability), routine collection of information, preparation for teaching, patenting, licensing or other activities, complying with statutory requirements or standards, specialised routine medical care and reproduction of a commercial product or process. The present exclusion list which currently applies only to all core R & D activities, will now cover supporting activities.
- R & D activities that are to receive the tax concessions are to be the subject of a plan approved by the controlling entity (for example, chief executive officer or board).
- all research and development plant will be eligible for deductions at 125% while used for research and development. The plant will be depreciable over its effective life and not over the three years provided for under the existing legislation. The change will apply to expenditure on plant incurred under a contract entered into after 12 pm in Sydney on 29 January 2001.
- a research and development tax rebate is to be available for all companies with an

annual turnover of less than \$5 million that spend up to \$1 million per year on research and development. Such companies will be eligible to receive a tax rebate equal to 37.5% for each dollar of eligible research and development expenditure. Small companies which meet the criteria will also be eligible for the 175% premium research and development tax concession mentioned below. The rebate will be available for expenditure made after 30 June 2001.

- companies that increase their level of research and development expenditure relative to their turnover will be eligible to receive the 175% premium research and development tax concession. Increases in R & D intensity (R & D expenditure/turnover) will be judged against a company's previous level of R & D intensity. The previous level, over which any increases will attract the premium rate, will be the company's average R & D intensity over the preceding three years. The new premium will apply to expenditures made in the 2001/02 income year. Mandatory grouping rules and other anti-avoidance measures will be introduced.

## Meaning of 'research and development activities'

The quote below is from an attachment to the Prime Minister's statement made on 29 January 2001, 'Backing Australia's Ability'.

The Government has identified weaknesses in the definition of 'research and development activities' through recent Federal Court decisions and Administrative Appeals Tribunal decisions that have unintentionally broadened the scope of the program beyond its policy intent.

The Government may have had in mind the case discussed below.

### *The task of determining whether any particular activity falls within the definition is difficult.*

The meaning of the definition of 'research and development activities' under the present law was considered by the Federal Court in *Industry Research & Development Board* ('the Board') v *Coal & Allied Operations Pty Ltd*, 2000 ATC 4477. Lindgren J analysed the definition as follows:

(a) First limb — core activities

Activities that:

- 1 are systematic or investigative or experimental; and
- 2 involve innovation or technical risk; and
- 3 are carried on for the purpose of:
  - (i) acquiring new knowledge; or
  - (ii) creating materials or products or devices or processes or services that are, in each case, new or improved.

(b) Second limb — supporting activities

Other activities that are carried on for a purpose directly related to the carrying on of a core activity.

It will be appreciated from the discussion below that the task of determining whether any particular activity falls within the definition is difficult. The courts have considered the definition, having regard to the object of the legislation of encouraging research and development activities, and the courts have tended to give the words used their ordinary and broad meanings rather than narrower technical meanings that may be applied in the law relating to patents of inventions.

In the *Coal & Allied Operations Pty Ltd* case, the taxpayer company carried out coal mining operations. It proposed to mine coal on alluvial lands, something that had not been

tried previously in Australia. To prevent the unwanted entry of water onto the lands to be mined, the company constructed a four-kilometre cut-off wall and levee bank. Soil-bentonite technology was chosen as the means of preventing ground water flowing into the mining area. The technology involved the design and construction of a wall composed of bentonite (a form of clay) and suitable soil and placing the wall in such a position as to block off the flow of unwanted water.

The board accepted that the activities of the taxpayer company involving the investigation and design of a water protection system were within the definition of research and development activities. These activities comprised the investigation of alluvial valley floor mining in USA, assessments of various options that led to the choice of pursuing a cut-off wall type to control ground water and minimise seepage, research and design of a soil-bentonite cut-off wall, investigations leading to a choice of levee bank design and research and design of the levee bank and the interface join between the cut off wall and levee bank.

The board rejected the following — construction of the cut-off wall and levee bank, including instrumentation to measure performance of the wall and bank, dewatering the alluvial mine site area to allow mining to commence and blasting and mining a technically determined section of the alluvial area adjacent to the cut-off wall and levee bank. The view was that the primary technical problems associated with the cut-off wall would be solved by the design, development and testing activities and that those activities would lead to the specifications for the construction of the wall and that construction would not involve any systematic, investigative or experimental activities but rather the

application of known bentonite techniques.

The board further determined that these activities would not be carried out for the dominant purpose of acquiring new knowledge or creating new or improved materials, products, devices, processes or services. Rather, it said, they were carried on for purposes associated with mining and so could not be considered to be core activities, as they would not involve acquiring new knowledge or creating new or improved materials, products, devices, processes or services.

At first instance, the Administrative Appeals Tribunal ('the AAT') concluded that the construction of the cut-off wall and levee bank activity was a core activity for the purposes of the definition and that the dewatering activity and the blasting and mining activity were supporting activities within the definition. The board appealed to the Federal Court.

Lindgren J pointed out that the 'particular activity need only be a systematic, investigative or technical activity that 'involves' innovation or technical risk'. His Honour said that 'the more liberal meaning' of the verb 'involve' was 'to include, contain or comprehend within itself or its scope'. His Honour said that 'the more limited meaning' of the verb 'involve' was 'to include as a necessary circumstance, condition or consequence; imply; entail' or 'contain implicitly, include as essential; imply, call for, entails'.

His Honour then said:

According to either meaning, an activity, although it must be 'particular', is not disqualified by reason only of the fact that in some respects it does not involve innovation or technical risk. I think that the more liberal meaning is the one invoked by the definition. This seems to be in accord with the approach taken by the Full Court in *Unisys* and with the Act's object of encouraging research and

development activities. . . . But even if the more limited meaning is in some way the applicable one, I think the AAT was entitled to find itself satisfied because the evidence accepted by the AAT showed that innovation and technical risk characterised Constructions (the construction of the cut off wall and levee bank) throughout.

The Board argued that the AAT was in error in holding that an activity may be 'innovative' because it is the first example of the large scale use of certain processes. His Honour agreed that a new largeness of scale, without more, does not necessarily point to innovation. His Honour, however, did not agree that the AAT found innovation consisting of nothing more than the fact that the taxpayer's contractor made large scale use for the first time of already known processes. The AAT found that the design was not concluded when construction began. Particular design problems and issues necessarily had to await construction. The AAT had expressly identified aspects of the construction activities which it said were innovative, including:

- combining existing engineering methods and machinery in a novel way to overcome the formidable problems of trenching through coal and alluvial rock;
- the very construction of the cut off wall and levee bank because the project represented the first installation of a slurry trench and soil-bentonite cut-off wall through coal in Australia and indeed the world; and

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*With effect from 29 January 2001, the definition of 'research and development activities' will be changed.*

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- the fact that the construction involved a series of 'indisputable firsts' and other innovative features, including the use of instruments not ordinarily applied to soil-bentonite cut-off walls.

His Honour said:

In *Unisys*, a full Court of this Court accepted (at 97 ATC 4853; 77 FCR 559) that the word 'innovation' in para 73B(1)(a) meant: 'something new or different introduced' and 'the act of innovating: introducing of new things or methods' for which it cited the *Macquarie Dictionary*.

I think that this statement by the Full Court accorded to the word 'innovation' an ordinary and broad meaning rather than a narrower technical one, such as one having an affinity with the meaning of 'innovation' in the law relating to patents of invention.

The board argued that the Tribunal was in error by:

- holding that 'technical risk' meant 'uncertainty as to outcome' and that technical risks may be involved because there is uncertainty as to practical outcome and whether the end product could be processed and sold commercially;
- holding that an activity may involve technical risk because, while there was little risk in the technology itself, there was induced risk in the attempt to apply it; and
- holding that innovation cannot mean only activities involving the use of processes (and, impliedly, holding that if a product is new then it can be inferred that the whole of the processes by which the product was created involved innovation or technical risk).

His Honour noted that the definition makes innovation and technical risk alternatives to each other, so that it is sufficient if the activities involved either one. (In a statement made on 29 January 2001,

*The Determination explains ... the express exclusion of 'core technology expenditure' from the definition of 'research and development expenditure'.*

the Government announced that, effective from that date, 'all claims must meet both the "innovation" and "high technical risks" tests.'). The Board claimed that AAT erred in formulating the test of 'technical risk' in terms of a 'mere uncertainty as to outcome', and submitted that the expression requires a realistic risk of failure. His Honour referred to the substantial volume of testimony before the AAT regarding the technical risks. Reference was made to the evidence that the designer had to be involved in the monitoring of the construction in order to make decisions as construction work progressed. Although certain of the technical risks had been anticipated during the design phase, it was accepted that there was the risk that the designer's predictions would turn out to be wrong. The evidence referred to known techniques being used in untried combinations in untried material.

Lindgren J said:

In my respectful opinion, what I have said above and earlier about Mr Davidson's eight technical risks shows that there was ample evidence before the AAT that the construction activity was attended by risks and that those risks were of a technical nature. It is not to the point that it was possible to conceive at the design stage of an area of potential difficulty in the later construction stage. There remained uncertainty as to whether what was to be tried at first would succeed. If it did not as in the case of the attempt to excavate coal by the use of a back hoe or clamshell, there was the risk of delay and extra cost while an alternative was found.

The board also argued, in relation to the second limb of the definition concerning supporting activities, that the phrase 'carried on for a purpose

directly related to the carrying on of activities of the kind referred to in paragraph (a)' would not be satisfied by a subsidiary, collateral or subordinate purpose rather than an actuating purpose. His Honour agreed with the AAT that the use of the article 'a' in para (b) indicates that the purpose specified in the paragraph need not be the 'sole' or 'dominant' or 'actuating' purpose and that it is sufficient that it was simply 'a' purpose of the activity in question.

It would appear that, in the view of the Government, this was one of the recent Federal Court decisions 'that have unintentionally broadened the scope of the program beyond its policy intent'. As mentioned above, Lindgren J had regard to the object of the Act of encouraging research and development activities. Others would argue that the decision of the Court was not only in accordance with the language of the Act, but gave the taxpayer company the benefit of the concession which, as a matter of policy it should have got.

### **Tax Determination TD 98/1**

In this Determination, the Commissioner expresses the view that expenditure on core technology is expenditure on research and development activities for the purposes of the definition of 'research and development activities' in s 73B. The words 'core technology' are defined and mean in relation to research and development activities, technology that is core technology in relation to those activities as provided by sub-section (1AB). That sub-section states that:

Technology is core technology in relation to particular research and development activities if:

- (a) the purpose of the activities was or is:
  - (i) to obtain new knowledge based on that technology; or
  - (ii) to create new or improved materials, products, devices, processes, techniques or services to be based on that technology; or
- (b) the activities were or are an extension, continuation, development or completion of the activities that produced that technology.

Some confusion arises because the legislation contains a definition of the phrase 'research and development activities' and a definition of the phrase 'research and development expenditure'.

The Determination explains that the express exclusion of 'core technology expenditure' from the definition of 'research and development expenditure' is to allow for the specific operation of the provisions which set out the basis on which expenditure on core technology is deductible. For expenditure on core technology after 23 July 1996, the deduction is limited to one third of the related research and development expenditure. Expenditure incurred in one year of income that is not allowed as a deduction in that year may be carried forward for deduction in future years.

Research and development expenditure does not include core technology expenditure, interest, expenditure on feed stock (except for eligible feed stock expenditure which is research and development expenditure), pilot plant expenditure, plant expenditure or building expenditure.

### **Finance scheme guidelines**

The Industry Research and Development Board published the Finance Scheme Guidelines No 2 of 1995 to provide information as to


whether finance schemes in relation to research and development activities would be taken to be 'ineligible finance schemes'. The guidelines were issued in accordance with s 39EA of the Industry Research and Development Act 1986. The Board has the power to determine whether particular 'finance schemes' involving arrangements are ineligible. The board may deem a finance scheme ineligible and issue a certificate to the Commissioner of Taxation under s 39MA of the Act, resulting in a tax deduction not being available. Sub-section 73B(33) of the Income Tax Assessment Act 1936 provides that, if the board gives to the Commissioner of Taxation such a certificate, the deduction is not allowable in respect of the expenditure. In broad terms, an ineligible finance scheme is one that has as its primary purpose the

conferral of tax benefits through the tax deductions rather than realisation of the commercial benefits of the research and development activities. The board has published 'Finance Scheme Guidelines No 2 of 1995', which is available through the Oz Industry Regional Offices in capital cities. The Oz Industry website is [www.ausindustry.gov.au](http://www.ausindustry.gov.au).

### 'Clawback' for research and development

The receipt of a Government grant or a recruitment of research and development expenditure may result in the deduction for the research and development expenditure being reduced from 125% to 100%. Whether the reduction applies is calculated as follows.

1. Firstly the 'clawback amount' is calculated, on a project basis, as twice the amount of the grant or recoupment.
2. If the research and development expenditure is equal to or less than the clawback amount, it is claimable at the reduced rate of 100%. If the research and development expenditure exceeds the clawback amount, the excess is claimable at the 125% rate.

Recoupments of grants made by the Commonwealth under the Co-operative Research Centres Program are excluded from the operation of the clawback provisions. The premium component of the R & D Start Premium is not subject to the clawback provisions, as it is a loan rather than a grant. The premium is repayable with interest under the R & D Start contract. 

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