



SUBMISSION TO:
THE *INNOVATION AND INCENTIVES* WORKING GROUP
OF THE NATIONAL INNOVATION SUMMIT

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EXECUTIVE SUMMARY

This submission deals with issues within the province of the *Innovation and Incentives Working Group*. The central theme is the determination of the most effective mechanisms for using Government funding to encourage innovation. This requires an assessment of whether current Government funding mechanisms contribute effectively to the improvement of Australia's innovation capacity, as well as the development of ideas about improving effectiveness through alternative, re-modelled, or rationalised Government funding mechanisms.

Michael Johnson & Associates Pty Ltd (MJ&A) is one of Australia's leading R&D support consultancies. We are a firm of consultants with backgrounds in law, science, business, and finance, and have specialised in the area of government and technology since 1983.

We have had significant exposure to the 125% *R&D Tax Concession* and *R&D Start* through our consultancy services in this area. The following observations reflect our experience in representing over 100 companies, and talking to many more, who are users of these Government innovation programs.

Our main submissions are summarised below.

Program Mix

- A series of major reports issued from 1993 to 1997 favoured retention of the current mix of grants and concessions.
- MJ&A supports the view that a mix of targeted grants schemes and broader tax concessions works well and should be retained.

R&D Tax Concession

- All major reports have concluded that the tax concession for R&D effectively encouraged R&D between 1985 - 1996. However, changes made in 1996, including the drop to 125%, significantly reduced its ability to encourage additional R&D.
- The R&D concession has become too complex and needs to be simplified.
- One crucial step for the Government is to recognise the project basis of R&D and return to its earlier practice of administering the R&D tax concession on a project basis.
- The current 125% rate of concession is insufficient to encourage additional R&D in Australia. This situation will be exacerbated by the expected reduction in the company tax rate to 30%.
- Government attempts to control the cost of the concession through restrictions on the nature and type of activities that can be claimed have led to unnecessary complexity, high compliance costs, and high levels of litigation.

- The appropriate way to control the cost of the concession is through the expenditure provisions rather than through tampering with the eligibility of activities.
- One suggested modified R&D Concession would involve:
 - a significantly higher rate of concession (say 200%) covering a broad range of activities
 - a wider coverage of offsets for the sale of any products created during R&D trialing in a production context, and
 - the clawback of a proportion of the benefit when successful R&D projects are commercialised.
- There should also be a single depreciation regime for both R&D plant and R&D pilot plant.
- Consideration should be given to providing a higher level of support for R&D expenditure incurred to industry based research associations and for expenditure on establishing and maintaining centres of excellence within company groups.

R&D Start Program

- The *R&D Core Start* program is generous and is a useful mechanism for encouraging the conduct of R&D by SMEs.
- The *R&D Start Plus* program has failed and should either be modified, to better suit the companies at which it is aimed, or abandoned.
- The administration of *R&D Start* should be less product focussed and more open to the development of processes, services, etc.

Modelling & Monitoring

- Measurement and modelling of the effectiveness of Government programs should be undertaken on an ongoing basis.

THE EFFECTIVENESS OF CURRENT PROGRAMS

Previous Reports

Since 1993 there have been numerous reports issued on innovation policy, mostly favouring retention of the current mix of grants and concessions. The R&D concession is viewed as an effective mechanism for increasing innovation but the changes implemented since 1996 reduced its effectiveness.

- *The Global Information Economy: The Way Ahead.* ('The Goldsworthy Report') July 1997.
Recommended a competitive R&D Tax Concession.
- *Make or Break - 7 Steps to Make Australia Rich Again.* July 1997. MTIA
Recommended a 200% concession for qualified R&D.
- *Going for Growth.* July 1997. The Mortimer Review.
Recommended one unified support program providing a tax concession, rebate, or cash option as appropriate.
- *Priority Matters.* June 1997. Professor John Stocker.
Described the 1996 changes to the concession as emphasising 'research' at the expense of 'development'. Recommended a broader coverage of activities, an increased rate of support, increased simplicity, and lowered compliance costs.
- *Research and Development.* Industry Commission Report Number 44. May 1995.
Concluded that the concession had brought net gains to Australia. Recommended the provision of grants at the same value as the concession to tax loss companies. Favoured targeting incremental R&D.
- *R&D, Innovation and Competitiveness - An evaluation of the research and development tax concession.* 1993. BIE. Research Report 50.
Concluded that the concession had encouraged innovation, increased BERD, and increased the ratio of BERD to GDP. However, Australia's position relative to other OECD countries had not improved.

Effectiveness of the R&D Tax Concession 1996 - 1999

The changes to the R&D tax concession in 1996 significantly reduced its ability to encourage additional R&D. Australia's R&D performance fell in response to:

- the reduced rate of concession (down to 125%)
- alterations to the definition of R&D
- the introduction of a feedstock offset, which affected only continuous processors, and
- the abolition of syndication, reducing the availability of venture capital.

The R&D Tax Concession

There are a number of problems with the current R&D concession, some of which are discussed below.

Project Basis of Claims

One key factor in recent years has been the failure of AusIndustry to administer the concession in a manner that reflects the real world in which R&D is conducted. The commercial context of R&D involves the conduct of R&D activities within *projects*. The administration of the concession is currently at odds with that context.

The sources of this problem are twofold.

- In the past 6 years the IR&D Board, the TCC, and AusIndustry have developed a tendency to insist on mosaicing/fragmentation of R&D projects during the assessment process.
Mosaicing refers to breaking a project down into many small individual activities and viewing each separately against the eligibility criteria, without any reference to the fact that the activities were part of an R&D project. This failure to understand the context of the project or its significance causes enormous frustration to users of the program.
- The tendency to mosaic projects was exacerbated by the introduction of a requirement for the annual registration of **R&D activities** (plural).
*In earlier years, it was simply the company that was registered. When registration of R&D **activities** was introduced, the IR&D Board could have administered this by registering projects (which are, after all, groups of R&D **activities**). Instead, they avoided the issue by simply stating that the company is registered for the activities in the application. This leads it open to continue the mosaicing approach to administration.*

The R&D concession was successfully administered on a project basis for the first 7-8 years of its existence. The huge growth in compliance costs is closely referable to the abandonment of this practice, and the change to administration and assessment on a single activity basis. This is despite the fact that ***at no point does the legislation use the singular term 'R&D activity'***.

Submission

It is crucial for the Government to recognise the project basis of R&D and return to its earlier practice of administering the R&D tax concession on a project basis.

Only by basing the concession on concepts that companies understand, and that reflect the reality of the way R&D is conducted, can compliance and litigation costs be kept under control.

Complexity

As noted in Professor Stocker's report, the concession has become extremely complex over time and needs to be simplified. The *Tax Law Improvement Project* may achieve some simplification when it rewrites the legislation in plain English. However, thought should be given to other mechanisms for simplifying the provisions.

The Rate of Concession

The current 125% R&D tax concession provides insufficient benefit to encourage additional R&D. Compliance costs have steadily increased in recent years and their effect on the real rate of benefit is greatest for small to medium enterprises (SMEs), for whom the compliance cost is close to the effective benefit. At a tax rate of 30%, the effectiveness of the concession can only be reduced even further.

The table below shows the decrease in value of the R&D concession over time, where *after-tax benefit = additional rate of deduction x company tax rate*.

Financial Year(s)	Tax rate (%)	Incentive Rate (%)	After Tax Benefit
85/86 to 86/87	46	150%	23
87/88	49	150%	24.5
88/89 to 92/93	39	150%	19.5
93/94 to 94/95	33	150%	16.5
95/96 to Aug 96	36	150%	18
96/97 to present	36	125%	9
Future	30	125%	7.5

If the company tax rate is reduced to 30%:

- to retain the R&D concession at its current level of support, the rate of deduction would have to be at least **130%**
- to return it to its original level of support would require an incentive of at least **175%**.

Submission

The current rate of concession is insufficient to encourage an increase in innovation in Australia. If the concession is to act as an incentive for the conduct of additional R&D, the rate must be increased.

R&D Start Grants

The *R&D Core Start* program is a generous and useful mechanism for providing R&D funding to SMEs. The level of support (50% of the project expenditure) ensures that the scheme encourages R&D projects which might otherwise not have been conducted.

The expansion of *Start* to include the *R&D Start Plus* program (20% grants for companies in groups with turnover >\$50M) has been unsuccessful and most of the expanded budget has been allocated to *Core Start* applicants.

Our information is that only around 10% of applications are from *Start Plus* companies, with only 5-10% of grants allocated to *Start Plus* candidates. In our view, the *R&D Start Plus* program suffers from a fundamental flaw in that it provides only a 20% grant, yet views the *need for funding* criterion on a company-group basis, an argument which is difficult to maintain for large companies.

There has been an administrative failure to look at the *need for funding* criterion on a project basis. A number of our clients have approached AusIndustry with an interesting R&D project that needed Government funding because of internal competition for funds within the company group.

The general trend is for AusIndustry to reject these applications purely because of the size of the company group, without considering the need for funding of this particular project, or of this entity within the group.

Submission

The *Start Plus* program has failed in its aims. The options for remedying this are either:

- to modify the eligibility criteria, or the administration of those criteria, to ensure that *Start Plus* is available to all larger companies, or
- to remove the *Start Plus* option and return to *Core Start* only.

If the latter option is chosen, the additional budget allocated to *R&D Start* when *Start Plus* was established should be taken back and made available for other innovation programs.

Another problem with the *Start* program as a whole is that its administration is too focussed on the development of new products. Application forms and guidelines need to be made more open to developments of new/improved processes and services.

Mix of Programs

The major reports have predominantly supported having a mix of grants and concessions. MJ&A's experience is that this mix is generally favoured by our clients.

Grants are useful but they support at most 300-400 companies a year and rely on the Government picking *winners*. Tax concessions, on the other hand, are market driven programs which can support an unlimited number of companies and projects. Companies chose which R&D projects to conduct and which to commercialise, giving tax concessions greater ability to encourage and foster a *culture of innovation* than grants schemes.

IMPROVEMENTS TO CURRENT PROGRAMS

The R&D Tax Concession

As we have noted above, both the R&D concession and grants schemes are useful ways of encouraging innovation. However, there is room for improvement, particularly in the tax concession program.

Adding Value to the Concession

The ideal would be to return the concession to its initial level of benefit. However, it is clear that the current Government is unlikely to support such a recommendation.

However, companies may be prepared to give something away in return for a higher level of support. Some suggestions are provided below, after an initial consideration of the aims of the R&D concession.

Aims of the Concession

The current aim of Government appears to be to encourage the conduct of additional/incremental R&D, rather than the development of a *culture of innovation*.

The introduction of an incremental model is not desirable because it would increase complexity, encourage artificial structuring arrangements, and discriminate against companies with a high base level of R&D.

Companies require support to cover them for the risk inherent in undertaking R&D. One way of achieving this is to provide a high level of support for a broad range of activities, but to claw back some of the profits received by companies when they commercialise successful projects.

Possible Solutions

Essential Preliminary Comments

The following solutions are offered as areas of the concession that could be amended in a situation where the base rate of the concession has been significantly increased. If any of these changes were made in the absence of a significant increase in the rate of concession, the effect would be to kill the concession and remove any chance that it would encourage additional R&D.

This is an important point to make, because the 1996 changes were the result of the Government taking all suggestions offered to it for controlling the concession, and then adding a reduced rate and the abolition of syndication.

Control of Costs, Not Activities

An essential element of the changes suggested below is that the initial rate of benefit is high but the containment of the cost to revenue occurs through control of the costs claimable, or clawback of the claims made.

This is critical to prevent the error made by AusIndustry since 1996 of trying to control the concession by arguing about the nature of activities, the extent of R&D activities, and artificial distinctions between core R&D activities and supporting R&D activities.

Any attempt to control the concession through altering or restricting the definition of eligible R&D activities is doomed to failure. It will only lead to:

- increased complexity
- frustration of companies with the legalistic manner of interpretation and the failure to reflect reality
- high compliance costs, and
- high administrative costs resulting from increasing levels of litigation.

One Suggested Solution

One suggestion for an R&D tax concession scheme that would encourage additional R&D is outlined below. When this suggestion was outlined to a major multinational company recently, the response was that it would be sufficient to cause relocation of R&D activities to Australia.

- **Higher Rate of Concession**
A significantly higher rate of concession (say 200%) available for a broad range of innovation and R&D activities, including commercialisation activities.
- **Offsets**
Expansion of the *feedstock offset* concept to provide offsets for the sale of any products created during R&D trialing in a production context. This would expand the offset from its current coverage of continuous processes, to cover all manufacturing operations, mining activities etc, where the conduct of R&D activities in normal operations is a feature of the R&D regime.
- **Clawback for Successful Projects**
Clawback of a proportion of the benefit when successful R&D projects are commercialised, perhaps through a percentage of sales. Considerable thought would need to be made to how this would be effected. The wording would have to cover the range of activities deductible, which currently includes processes and services as well as products, materials, and devices, and also to take account of profitability levels.

Other possible changes

Other changes that could be useful include:

- **One Regime for Plant Expenditure Used for R&D**
The current rules are different for plant expenditure (125% over 3 years) compared with pilot plant (125% over the useful life). This is illogical and all plant used exclusively for R&D should be deductible under the same set of rules.
- **Support for Industry Research Organisations**
Consideration should be given to providing a higher level of support for R&D expenditure incurred to industry based research associations.
- **Centres of Excellence**
Consideration should also be given to providing a higher level of support for expenditure on establishing and maintaining centres of excellence within company groups.

MODELLING & MONITORING OF INNOVATION PROGRAMS

The provision of tax concession and grants for R&D is only acceptable if the net impact on national objectives is positive. The objectives against which Government programs for innovation should be assessed include growth targets, social and community objectives, employment targets, and taxation policy objectives.

Detailed modelling of the benefits of the programs is required, taking account of the spillover effects of R&D. Data is needed to show how the concession and other Government programs contribute to growth and employment, increase competitiveness, and ultimately increase Government revenue through the income generated by these growth, employment, and productivity effects.

Only through gathering empirical data and conducting detailed analytical modelling will it be possible to properly assess the programs.