The new Research & Development Tax Incentive

Submission in response to consultation paper dated September 2009

Innovation Science Pty Ltd

110 & 114-115 Balcony Level
Gay's Arcade
Twin Street
ADELAIDE SA 5000
Australia

26 October 2009

The new Research & Development Tax Incentive

Submission by Innovation Science Pty Ltd in response to the Australian Government consultation paper dated September 2009.

Context

Innovation Science Pty Ltd is a small software engineering company based in Adelaide with local and international clients in the defence domain. Our decision two years ago to invest heavily in research and development to enable diversification into the homeland security software market was largely underpinned by the availability of the existing R&D tax concessions. This was a long-term strategic decision and consequently employs ~25% of our current engineering workforce.

General Comments

The following sections address a subset of principles and questions identified in the Consultation Paper. In some cases, we do not feel there is sufficient detail or guidance available to provide a recommendation. We have therefore posed questions back to the panel in the hope that our questions can highlight potential hazards that we believe need to be considered in greater detail before the final legislation is drafted.

Principle 6 – Eligible R&D Activities

> Eligible R&D activity will be defined as systematic, investigative and experimental activity that:
>
> (a) involves both innovation and high levels of technical risk; and
> (b) is for the purpose of producing new knowledge or improvements.

Substitution of Conjunction

Limiting eligible R&D activity to activities that involve both innovation AND high levels of technical risk increases the importance of the *granularity* of each activity definition.

A proposed R&D project that is defined only to large levels of granularity will tend to bundle tasks of high and low technical risk into single activity granules. It will also consider each large granule to be of higher risk than if time had already been spent resolving some of the uncertainty associated with the lack of detail by distilling the large granule into smaller activity granules.

It is therefore likely that the use of the conjunction, “and” rather than “or” will encourage organisations to consciously broaden their R&D project granularity purely to address an artefact of the new R&D legislation – thereby increasing risk and perhaps also the number of failed projects that will have been partially funded by the Australian tax payer.

Furthermore, a small company is likely to deal with smaller levels of project granularity than a larger organisation. Identical tasks will therefore be considered ineligible for the smaller organisation, but eligible for the larger organisation purely because the activity granule defined by the larger organisation bundles the otherwise ineligible task with eligible tasks. This disadvantages smaller organisations conducting smaller R&D projects.

We strongly encourage the retention of the conjunction, "or" within the eligibility criteria so as to not disadvantage smaller organisations, or those organisations who have already invested time and effort to define their R&D project in greater detail.

High Levels of Technical Risk

We acknowledge that the "High levels of Technical Risk" criteria forms part of existing R&D legislation. However, we wish to encourage clarification through better guidance in any subsequent legislation.

NIST[1] highlight that the ability to describe "risk" implies sufficient prior experience of similar projects to be able to quantify a probability of success or failure whereas truly novel activities are more properly said to be facing uncertainty rather than risk (p7). If R&D assistance is to be focused on innovative (novel) activities, then shouldn't we be attempting to identify that there is sufficient uncertainty in the activities being conducted rather than attempting to quantify a probability of failure? That said, as the term "Technical Risk" is currently adopted by the consultation paper, the following comments address the topic in that context.

Who will be ultimately responsible for determining that technical risk for a given activity is sufficiently high? Two organizations may legitimately identify an identical task to have different levels of technical risk based on factors such as uncertainty about future technological developments, differences in existing levels of domain knowledge or experience, or the extent of technical information available to the organization at the time of the risk assessment. Subjectivity associated with "high level of technical risk" is in itself a significant risk to an organization planning to conduct what they believe should be eligible R&D if there is any chance that the activity will be subsequently assessed as having insufficient levels of technical risk when being retrospectively assessed for its eligibility.

Exceptionally good guidance regarding the allocation of risk levels will be necessary if the "and" conjunction is used within the innovation/technical risk eligibility criteria.

Innovation

It is concerning that the consultation paper asserts innovation eligibility in an example (page 10) using the sentence "The device was innovative because it was novel". More substantive guidance is required to help potential R&D Tax Incentive recipients determine whether an activity is innovative. For example, should it be necessary for an activity to show an "innovative step" (in accordance with IP Australia's definition and subsequent rulings, including Delnorth Pty Ltd v Dura-Post (Aust) Pty Ltd [2008] FCA 1225)? If so, to what extent is supporting documentation required to justify this determination? How much time and effort needs to be spent gathering evidence of

[1] National Institute of Standards and Technology, Managing Technical Risk: Understanding Private Sector Decision Making on Early Stage Technology-based Projects, NIST GCR 00-787, USA, April 2000, http://www.atp.nist.gov/eao/gcr_787.pdf.

prior art, etc.? All of these considerations translate to additional overhead and expense – drawing effort away from R&D activities themselves.

The consultation paper example on page 10 also infers that the research and development of the entire device was eligible as it does not differentiate between eligible and ineligible activities that may have made up the device R&D. At what activity granularity is it acceptable to define an R&D project?

Principle 7 – Supporting R&D

> Supporting R&D will continue to be recognised under the new R&D tax incentive but claims will be subject to new limitations.

Differentiating between eligible and ineligible R&D expenditure using common small business accounting software is challenging at best. Having to apportion between core, supporting and ineligible expenditure on an activity-by-activity basis will greatly increase administrative overhead associated with R&D projects. The chosen granularity of R&D activities will also affect what is considered core and supporting R&D expenditure and will result in inconsistencies between different claimants – again favouring larger organizations who are likely to define larger activity granules.

We recommend the requirement to differentiate between core and supporting R&D activities be limited to applicants of the Standard R&D Tax Credit, and permit smaller organizations (i.e. those with a turnover less than $20m) to bundle core and supporting R&D activities (as is currently permitted) when applying for the Refundable R&D Tax Credit.

Should our primary recommendation not be adopted, we recommend there be no cap on the proportion of supporting R&D relative to core R&D, but that supporting R&D expenditure in excess of 2:1 attract only a 30% tax credit (whether capital in nature or not).

Question 6 - Software

> How should the new R&D tax incentive treat software R&D?

While acknowledging that the existing software eligibility provisions do not adequately address the government's intent to exclude in-house software development, we have grave concerns over the application of proposed software eligibility criteria outlined in the consultation paper.

In order to illustrate why we believe the proposed restrictions are inappropriate, we have provided a series of examples to address two of the proposed ineligible software R&D activities:

Handling Interactions with Users

The consultation paper proposes that the development of user interfaces be excluded as an eligible activity. We submit that there are many situations where the research & development of user interfaces should be considered either core research or a vitally

important supporting activity without which the core research would never be able to be systematically evaluated or adequately progressed.

Examples where user interfaces should be considered eligible R&D:

- Researching the best way to present information to or accept interaction from mentally or physically impaired computer users. Numerous iterations of user interface R&D could be required due to difficulties obtaining feedback from the target user-base.

- Determining workable methods for presenting and interacting with large quantities of data on a single user interface. For example, a submarine or warship console display (user interface) that needs to efficiently present and manipulate large quantities of data received from multiple sensors to an operator in a low-light control room environment.

- Researching the viability of using emerging thin-client technologies to construct real-time distributed operator interfaces to a cloud-hosted processing cluster. Technical risks include the maturity of each emerging technology, eventual user-interface performance characteristics, ability to combine multiple emerging technologies to address a single user-interface technical requirement, etc.

Creation of Websites of Software Using Tools for that Purpose

Recent advances in emerging thin-client technologies and the rapid adoption of broadband communications are creating opportunities to develop innovative software solutions that exploit web technologies, but which are much more than a traditional website.

Clarification is required regarding the use of the term, “Website”. ATO Taxation Ruling TR 2001/6 (withdrawn 6 August 2009) defined a Website as “… a document or series of documents (pages) linked together and operating from a server (computer) connected to the Internet”. Noting that the TR 2001/6 has been withdrawn partially due to significant changes in the development and maintenance of websites making the ruling obsolete, we had difficulty obtaining a current ATO definition. Should a broader definition of “Website” be adopted for the R&D legislation, then there is a significant danger that an exclusion clause like the one proposed will eliminate the majority of modern software research and development from being eligible R&D.

“Cloud Computing”, “Software as a Service” (SaaS), and “Thin-Client” technologies are all examples of contemporary software engineering philosophies. All of these technologies could be considered web-based, but they do not generally form the basis of traditional advertising, e-commerce or entertainment websites. However, there is a high likelihood that tools designed for the development of websites would be involved in the exploitation of these web-based technologies.

Care needs to be taken not to disadvantage the Australian software industry from exploiting web-based technologies to invent innovative solutions that are not considered advertising, e-commerce or entertainment “web sites”. By excluding “the creation of websites or software using tools designed for that purpose”, the tax incentive is likely to exclude the majority of legitimate R&D that exploits these modern techniques. We hope this is not the intention of the new legislation.

The use of web technologies as the mechanism to provide end-users with access to innovative software should not be artificially excluded as a commercialisation option

by way of exclusions within the R&D Tax Incentive legislation that drive early-stage architectural decisions. For example, software developed with the intention of being deployed as SaaS, Thin-client or “in the cloud” can:

- provide better protection of intellectual property in countries where IP protection is poor (for example, the core IP resides safely on one or more servers in Australia with foreign users accessing the technology via a thin-client user interface); and
- offer additional revenue models including time-limited access licences, and pay-as-you-go end-user purchase options.

There are fundamental differences in the design of software developed to run as a traditional desktop application versus software which offers the same capabilities but runs using a thin-client, SaaS or Cloud Computing model. It is important that the new R&D Tax Incentive does not artificially drive software design towards what may soon be an outdated desktop application development model.

Multiple Sales Test

Example 3 in Appendix A of the Consultation Paper is used to illustrate that the multiple sale test for software is insufficient to prevent in-house software development becoming eligible R&D expenditure. The Consultation Paper also suggests that the multiple-sales test is obsolete. We disagree.

Rather than eliminate the multiple-sales test, we believe appropriate legislation of the guidance offered in section 4.1.8 of the “Guide to the R&D Tax Concession Part B: Activities” would lead to the intended effect of making in-house software development ineligible. Provided considerations are introduced regarding the provision of “Software as a Service”, appropriate legislation could also lead to the exclusion of “web-site” software development without excluding R&D that exploits web-based technologies.

If the guidance offered by section 4.1.8 were adhered to, example 3 in Appendix A of the consultation paper should be ruled ineligible based on:

- the lack of direct fee or other consideration charged for the software;
- the inability to show that the system was not site-specific; and
- the system not being intended to process different sets of data.

We ask that further consideration be made towards enhancing the multiple-sales test rather than establishing a set of specific eligibility rules that will rapidly risk obsolescence and exclude legitimate software R&D activities from being considered eligible.

Michael Haddy
CEO
Innovation Science Pty Ltd
26 October 2009