



Tax Laws Amendment
(Research and
Development)
Bill 2010

Australian Information
Industry Association

Response to
Exposure Draft

February 2010

Introduction

AIIA welcomes this opportunity to provide further and more detailed comment on the Exposure Draft [Tax Laws Amendment (Research and Development) Bill 2010], part of a series of measures announced by government in *Powering Ideas*, the national innovation agenda to 2020.

As the peak industry body for the ICT sector in Australia, AIIA is concerned that the proposed changes to the R&D regime fail to recognise the pervasive and transformational nature of information and communications technologies across the entire economy. *If the flow-on economic impact of innovation in the ICT sector is stifled by these proposed changes, the government's objective to achieve a productivity lift to upwards of 2 percent is at risk.*

General purpose technologies are in a unique position across all economies; the continuing impact of the diffusion of ICT and its potential to have “profound implications for the way in which government services are provided to a rapidly growing aged population...” have been recognised most recently by Australia's secretary to the Treasury, Dr Ken Henry. He has noted that the productivity gains of general purpose technologies characteristically take a long time to have their full effect, with much of it occurring some decades after the initial breakthroughs. We hold these observations to be correct. And they have clear implications for the success or otherwise of the proposed changes, should these changes be implemented.

Given the Government's strong emphasis on enhancing Australia's productivity, it is important to point out that national innovation benefits are derived equally through the innovative, early and rapid adoption of new and commercially available technologies, as well as through risky and innovative research and development.

AIIA welcomes the increase in the rate of benefit under the tax credit regime but is concerned that the level of genuine R&D which can now satisfy the various new tests and definitions has been substantially reduced.

Additionality

The Bill's *Objects* clause states that the proposed changes will encourage industry to conduct R&D activities (as defined) "that might otherwise not be conducted because of technical uncertainty, in cases where the knowledge gained is likely to spillover to the benefit of the wider Australian economy." Grounding the provision of a subsidy in the concept of additionality is erroneous and will compromise the effective administration of the new regime. Companies do not make decisions to proceed with an R&D project solely as a result of a tax incentive; it is counter-intuitive for a commercial organisation to undertake an activity *that it would not otherwise do* but for the possibility of an incentive sometime in the future.

Spillover

AIIA understands the policy intent of the Exposure Draft is to target, encourage and appropriately subsidise R&D activities most likely to create beneficial impacts on the economy as a whole, referred to in the Explanatory Materials as spillovers. Spillover benefits are notoriously difficult to quantify, especially at the commencement of R&D activity. Many of these benefits, from small step-changes as well as radical improvement, may take years to filter through the wider economy. With hindsight it may be easier to determine whether spillover has occurred, but a company cannot be expected to assess the broader benefits beyond its own immediate domain. How such benefits can be assessed by either claimants or officials administering the new scheme is a mystery to the industry at this stage. Consultative discussions with officials have not illuminated the issue; AIIA would be concerned if spillover criteria could be mis-applied (erroneously) to disallow R&D claims.

We note that the Explanatory Materials at page 12 explicitly states that the "R&D tax incentive is *not intended* as a subsidy for innovation in general." Yet in the Government's 2010 Intergenerational Report (IGR), the synergy between R&D and innovation is clearly made: "Innovation is a key element to productivity growth. A major input into innovation is research and development (R&D), which increases the stock of knowledge in the economy... The Government is supporting innovation in critical areas, including innovations by business, collaboration between private and public sector researchers and investing in the research capacities of our universities and public research agencies" (page 51, IGR.)

Innovative software development is fundamental to the development of a vibrant digital economy and the flow-on impact of innovation for the rest of the economy is now well recognised by commentators. Innovative R&D can provide new ways in which to drive industries forward, especially in these times of financial stress. In addition, the government's decision to build the NBN has created the capacity to build smart applications in health, education, agriculture, science and engineering solutions enabled by ICT. These innovations need to be developed here as much as possible, and should receive government support through an appropriate R&D tax incentive system. AIIA remains concerned with the policy disconnect between the messages sent by the Government in relation to productivity and the potential of the NBN, and the proposed changes to the R&D regime.

Further clarification of the assumed policy intent is evident from Minister Carr's announcement that the proposals aim to provide a "better targeted, more generous, more predictable and less complex" tax incentive for "genuine R&D". To the extent that the Draft seeks to achieve these policy and operational goals, AIIA suggests certain amendments are needed to ensure appropriate realisation of stated policy aims. Supporting argument for these amendments appears in the body of this submission.

Suggestions for Change

AIIA's suggested amendments are:

- remove the cumulative test of 'considerable novelty AND high levels of technical risk', replacing it with alternative tests ('considerable novelty OR high levels of technical risk')
- exclude from the purview of eligible R&D, *"upgrades to an in-house software package (or part thereof), or a replacement of that package with a similarly featured alternative"*
- remove the current list of exclusions at section 355-35 (2), paragraphs (a)-(r)
- remove the multiple sale test, or alternatively add the words "or indirectly" after the word "directly"
- remove the 'dominant purpose' test

Novelty AND high technical risk

Despite precedents against it, and strong industry opposition, a revised definition of core R&D now requires compliant activities to exhibit *both novelty and high levels of technical risk*. Efforts to introduce this approach in 2001 were widely rejected by practitioners and industry. In summary, this was because:

- the increased compliance burden outweighed any benefits
- it was (and remains) at variance with the OECD Frascati Manual, which sets out the widely accepted working definition of what constitutes R&D
- there was no evidence that the existing definition had caused inappropriate claims.

To date, there has been no rigorous public policy justification for re-introducing this additional requirement. Until this is provided to industry the reasons for rejection of the cumulative test remain as valid today as they did nine years ago.

There has been no evidence of mischief adduced to support the move from an alternative to a cumulative test. Other sectors and industries have been specifically named in the past as having brought mischievous claims (the Cutler Report identified the mining and banking sectors, for example) so it is disingenuous for the Government to now propose changes that act as a catch-all for sectors such as software/ICT in what amounts to an 'unintended consequences trap'. Paragraphs (o) – (r) are examples of specific targeting of the software/ICT industry, and if appropriate changes are made to the Draft Bill, these paragraphs will not be needed. Discriminatory treatment of sectors or industries that are not the intended targets of legislative reform is poor legislative design and sub-optimal policy.

As a matter of clarification the OECD defines R&D as "...creative work undertaken on a systematic basis in order to increase the stock of knowledge including knowledge of man, culture and society and the use of this stock of knowledge to devise new applications." (Frascati Manual, page 32, 2003 edition). Frascati does not require activities to exhibit characteristics of both novelty and high technical risk. AIIA submits that this principles-based approach to a definitional test provides more certainty for potential claimants, and is in line with practices of our major trading partners and OECD nations, a fact that is seminal to this debate given the highly global and mobile nature of R&D activities.

This cumulative test introduces an incremental statutory requirement that adds uncertainty and complexity for a potential claimant trying to ascertain whether their activities fit within the ambit; any complexity adds cost and administrative overheads to a business, especially at the smaller to medium end. Given this government's emphasis on productivity increases to facilitate economic growth, burdening business with additional costs will only diminish productivity. The Intergenerational Report recognises that productivity enhancing reforms such as reducing business costs are essential if stated targets for productivity growth are to be reached by 2049 (IGR page 11). Adding costs to business through uncertain and complex R&D definitions, at the same time as reducing its ability to facilitate technological advance, runs counter to this government's goals.

A more compelling argument is the realisation that, given other proposed changes in the Draft, this cumulative test is not necessary; the requirement that experimental activities must be conducted for the purpose of acquiring new knowledge or information means that by definition, those activities will involve novelty because they will deliver new (novel) knowledge. Semantic analysis of these two words indicates they are conflated – 'new' is 'novel' is 'innovative' (to a lesser degree). The term "innovation" is replaced by "novelty" in the Exposure Draft. Given the central importance of innovation to Government policy, the law should allow claims that seek to advance technology or adapt/apply technology in new ways. The word "innovation" is preferable, as it encompasses both the process and intended outcomes.

In-house systems upgrades

The policy intent as explained to AIIA in consultations is to specifically exclude public funding support for in-house changes or upgrades to existing software applications where the features and/or functionality remain largely unchanged from the user's perspective, i.e. the result is essentially business-as-usual. The reason for this is that even if some productivity gains may result, such gains mainly benefit the organisation undertaking the improvements and there is no spill-over to the wider economy. AIIA supports this policy intent.

AIIA also understands that in the past, BAU activities have been the subject of inappropriate and overblown claims, which current assessing guidelines seem unable to deal with. AIIA does not condone or support any inappropriate threats to the revenue from claimants whose activities lack

integrity or deliver no added value. However, if the targeted activity is explicitly excluded, and assessing skills and guidelines strengthened, there is no reason why inappropriate attempts to claim BAU as R&D should be successful.

Examples of wording that might support this policy intent include:

1. Upgrade to an in-house software package (or part thereof), or a replacement of that package with a similarly featured alternative – **not eligible** for R&D tax credit.
2. Technically risky or innovative development to a software product (or part thereof) for use by third parties – **eligible** for R&D tax credit.
3. Investment in hardware and software to specifically support a risky or innovative product development for use by third parties – **eligible** for R&D tax credit.

Exclusions list

The activities in the extensive list of exclusions at sub-section 355-35(2) have been barred from consideration under the R&D tax credit scheme without good policy reasons or justification. If these activities might otherwise conform to the stricter definitional requirements of 'core' and 'supporting,' then they should be reviewed initially on a case-by-case basis according to the principles of self-assessment inherent in this (and most other tax concessions) regime (Explanatory Materials, paragraph 1.29). Pre-supposing that they will never meet the definitional requirements is poor legislative design.

Additionally, if the real policy intent is to stop the public subsidy of BAU activities, then a tightly drawn exclusion of such activities (see sample wording above) satisfies that policy intent and leaves other activities to be examined within the self-assessment/review processes that broadly characterise Australia's tax system and this tax credit regime in particular. If those other activities do not satisfy the criteria they should not be allowed on review by Innovation Australia. This of course presumes appropriately skilled assessors and review processes supported by comprehensive decision guidelines.

Multiple sale test

The Consultation Paper of 2009 stated that “the Government...considers that the current multiple sales test has become an outdated articulation of policy intent as it relates to software.” (paragraph 75-76). This appeared to recognise the plethora of new and mass-adopted internet services that now dominate the workflow of most Australian businesses. Software distribution and development models such as cloud and SaaS have largely replaced traditional go-to-market mechanisms that supported a multiple sales test twenty years ago. The retention of such an anachronistic test, by Government’s own admission, augurs ill for a legislative framework that must stand the test of time for the next ten or more years. It is already outmoded in 2010.

The multiple sale test has the potential to restrict a large amount of otherwise eligible software R&D that currently uses an internet-focused revenue model. Examples such as Google Maps and Wave, which had no monetisation strategy for several years, nevertheless display genuine innovation and eligible R&D under any definition; clearly innovative developments such as these are front-of-mind in the Government’s desire to facilitate productivity growth across the economy. Further, there may well be future software developments and revenue models not yet known or invented, which will be ‘strangled at birth’ by this test, already recognised as outdated.

Dominant Purpose Test

The addition of ‘dominant purpose’ is a further narrowing of the definition of R&D activities. AIIA submits that there has not been a sound policy reason provided to industry for this approach; it is reasonably straightforward for an organisation to ascertain if its activities are necessary for the conduct of their R&D, that is, *required* to enable those activities to be undertaken. But the qualitative and uncertain nature of the concept of ‘dominance’ is somewhat more arcane – in addition, SMEs frequently use scarce resources to maximise returns so it may not be possible to set up R&D functions to which a dominant purpose can be ascribed.

Appendix 1 – Case Studies

The following projects planned by innovative information technology intensive companies highlight the disincentives that paragraphs (o), (p), (q) and (r) create:

Co-innovation projects

- ‘Co-innovation’ projects undertaken by the special purpose Australian research subsidiary centre of a multinational business information systems components developer, employing 40 people in Australia. Many of its projects are carried out in conjunction with universities and research groups such as NICTA, and do not have an immediate market in mind. In many cases, Beta versions are provided ‘free’ as the company only sells or licences software once it has been comprehensively proven in the field. This research group always uses commercial off-the-shelf or open source software and it is frequently impossible to segment the business-as-usual components from the research components and then from the innovative outcomes of the whole process. In other words, it is impossible to ‘unscramble’ the egg once development processes are complete or underway. Innovations include:
 - Applications for emerging devices – e.g. iTunes and mobile applications
 - New business opportunities arising from products such as Google Maps.
 - New business models that enable internet commerce based interfacing to robust Enterprise Resource Planning software modules.

Open Source and Collaborative new economy initiatives

- Cooperative ventures by the Australian subsidiary of a global solutions company employing 650 researchers in Australia (frequently using open source products) with universities to develop
 - development of software modules which are provided to open source channels (e.g Linux kernel development)

- development of new innovative business solutions for which the user pays on a 'per click' or transactional basis - the solution may involve hardware, software and other services
- development of software to provide new functions from a mobile phone (e.g. natural language support interrogation of email), which generates revenue by increasing connect time
- development of innovative solutions (including software) to monitor electricity usage by time so that users can be encouraged to adjust their usage to minimise peak loads and hence save in power-generation costs (and investment)
- internet-based health services
- proof of concept and adaptive development of facilities to enable massive computational power for frontier science projects, where an immediate customer is not apparent but the outcome is the creation of core knowledge with far-reaching potential for world-class ICT developments
- development of services and solutions that provide improved customer experience but do not have a discrete 'price tag'.

Small and Medium Enterprises

- collaborative research with customers who provide funds to develop niche products or resolve problems. These improve the quality of the services and enable SME's to be more competitive (globally as well as locally) but may not have an immediate payback in terms of licensing.
- a services company supplying the services to manage and run a client's supply chain operation (in essence - business process outsourcing). Fees are based on transaction volume and meeting defined service levels. The services company invests heavily in research and development of software and algorithms to provide end-to-end integration across the business process and to manage the

inventory/suppliers/delivery channels. The capabilities developed will be used to provide services to additional clients.

- research into open source Linux Kernel is offered as an open source resource. Other developments take a more specific development path. They are not offered to the open market, e.g. they are incorporated into the companies hardware or middleware based products to enable them to operate in the open source arena.

Financial Services

- AllIA appreciates that large Australian companies, including banks, spend a large pool of money on developing technological advances to enhance the customer experience and ensure security of customer data; whilst we support reducing incentives for integration that does not add to the customer experience, the proposed amendments should not extend to all large-scale developments because many of the developments provide spillover benefits
- projects directed to straight through processing enable better risk management, help lead to a more efficient banking system and because of the scale of the projects increases the expertise of staff and contractors working on the projects. The outputs of such projects create a capacity for customers to create new income streams and develop their own products to take advantage of new transaction mechanisms (for example, internet enabled settlements).
- investment in IT infrastructure has enabled the Australian banks, financial and investment institutions to emerge from the Global Recession comparatively better than their peers overseas. This is in part due to having better quality information on their customer base, partly facilitated by customers using the online services of banks for their transactions, and the banks are able to analyse trends and take earlier corrective action.

Retail Industry Innovations using ICT

- an Australian company developing a platform with advanced tools for merchandise, supplier and logistics management (which are comparable to those of large enterprises) but are far simpler to use, requiring minimal training of franchisee staff and minimal IT support.

Overall, both large and small enterprises indicate that the business model in the ICT sector has permanently moved on from the business models that have applied in the recent past, predominantly due to the pervasiveness of cloud technologies and SaaS, as well as other mass-adoption internet delivery models. The instances of developing software and licensing it as a stand-alone product are very much in the minority. Organisations such as Amazon, eBay, and online brokering firms use alternative revenue-generation and market delivery techniques that do not sit well with any form of multiple sales test, a test which was developed more than twenty years ago when delivery and revenue generation models were very different. From SMEs to the largest multinational, the paradigm is to work cooperatively with customers, suppliers and subject matter experts to create innovative solutions. The rewards are more often indirect, as evidenced by the variety of applicable business models:

- Packaged software – e.g. single or multiple user licence, seat-based licences. Sometimes the licence comes by buying the computer, other times it is provided through internet or cloud services.
- ‘Free-mium’ business models, in which basic capability is provided for free but enhanced services are on a fee-for-service basis (e.g. classified advertising where the user pays for additional information or to be alerted by SMS for buying opportunities).
- Integrated software and services – the vendor provides software, support and / or hardware to its customers. These are often multi-year deals where the vendor remuneration is based on formulae based on how they deliver savings in costs and performance improvements.
- Development of services where the revenue stream arises indirectly – e.g. the advertiser pays a fee to the developer based on the number of ‘hits’ to a website.

- Development of tools that improve the customer service experience – these are a growing source of internet-enabled business opportunities: on-line health, education, product trouble-shooting are just some examples. The provision of the internet service helps secure customer loyalty but does not give rise to direct revenue from the underlying development.

Government needs to be mindful that the ICT industry has advanced beyond its computer coding/software development foundations. Increasingly, the industry aims to provide integrated solutions involving multi-disciplinary approaches to solve problems and create new business models. Accordingly, specific rules targeting the software development aspects of a project are counter-productive. No other industry sector has been treated the same way by the Exposure Draft; mining and manufacture do not face the same integrity measures which have been strengthened with a focus on software only

Appendix 2

The Australian Information Industry Association (AIIA) is Australia's peak technology industry body. AIIA's role is to lead and represent the ICT industry in Australia to maximise the potential of the Australian economy and society. AIIA's membership encompasses all sectors of the ICT sector including hardware, software, services and telecommunications. It has almost 500 member companies, from individual consultants, small to medium enterprises to the world's leading multinational corporations.

AIIA member companies employ over 100,000 Australians, generate combined annual revenues of more than \$40 billion (approximately 5% of GDP) and export more than \$2 billion in goods and services each year.