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### **R&D Tax Incentive Discussion Paper**

The New Zealand Law Society (Law Society) welcomes the opportunity to comment on *Fuelling Innovation to Transform our Economy: A Government Discussion Document on a Research and Development Tax Incentive for New Zealand (discussion document)*.

The Law Society's Intellectual Property Law Committee has considered the discussion document from the perspective of the practical application of R&D rules. The committee has not responded to a number of questions in the discussion document (Qs 5, 6, 9 – 12, 14 – 17 and 20 – 23, listed in Appendix A) that are outside the committee's remit and expertise. Responses to the remaining questions are set out below.

**Question 1:** *If SOEs, Crown Research Institutes, District Health Boards, Tertiary Institutions, and their subsidiaries are excluded from the tax incentive, what will the likely impact be on business R&D in New Zealand?*

R&D carried out by most of the organisations listed would usually be regarded as government R&D. The only effect on businesses would be if a business was not allowed to include R&D expenditure for R&D outsourced to any of these organisations – which does not appear to be the case.

**Question 2:** *How well does this definition apply to business R&D carried out in New Zealand?*

The definition of R&D referred to is:

“(a) Core activities: those conducted using scientific methods that are performed for the purposes of acquiring new knowledge or creating new or improved materials, products, devices, processes, or services; and that are intended to advance science or technology through the resolution of scientific or technological uncertainty.”

OR

“(b) Support activities: those that are wholly or mainly for the purpose of, required for, and integral to, the performing of the activities referred to in paragraph (a).”

The above definition covers research activities, but omits a lot of what would be called Development. This seems to be contrary to the ultimate objective of increasing innovation. The

phrase “using scientific methods”<sup>1</sup> could be construed in a narrow way to exclude applied research – the type of research one normally associates with business R&D. The scientific method is more strictly adhered to in conducting fundamental research, but fundamental research is more usually funded by governments through universities or government research agencies.

The discussion document states that “the proposed definition of R&D is based on international best practice, guided by the OECD’s Frascati Manual ...”. The OECD Frascati Manual defines R&D as:

“... creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of humankind, culture and society – and to devise new applications of available knowledge.”<sup>2</sup>

The definition proposed in the discussion document is narrower than the Frascati Manual definition because of its requirement of “using scientific methods”.

However, we acknowledge that it is important for the government to adopt a definition of R&D that captures the particular work it wants to stimulate (perhaps by defining exclusions that identify non-deductible activities) rather than working back from what is generally considered to constitute “R&D”.

**Question 3:** *Does this definition exclude R&D that you think should be eligible, please illustrate with examples.*

The definition, taken literally, would exclude almost all development work undertaken by businesses. Development work is what is done once the scientific method has established a scientific theory. For example, the scientific method was used to determine that gases were effective in enhancing the storage life of perishable products, such as apples. But it was development that enabled storage facilities that allowed for this theory to be applied at an industrial level. That development would only have been funded by a business after the gas hypothesis had been established. It is the reference to “the scientific method” in the definition that makes it solely “research” and excludes “development”. Development is at the core of business-funded research.

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<sup>1</sup> The Science Media Centre <https://www.sciencemediacentre.co.nz/how-science-works-what-is-the-scientific-method/> defines the scientific method as having the following steps:

- An observation is made about something
- A logical hypothesis is formulated to explain the observation
- This hypothesis is used to make predictions
- These predictions are tested using experiments or more observations
- The hypothesis is adjusted if necessary. These steps are repeated until the hypothesis matches the experiments/observations closely.

Once the hypothesis has stood up to repeated testing, it is considered a scientific theory. A scientific theory explains a phenomenon or a set of phenomena, and can be used to make further hypotheses and predictions.

<sup>2</sup> Frascati Manual 2015: Guidelines for Collecting and Reporting Data on Research and Experimental Development <http://www.oecd.org/sti/inno/frascati-manual.htm>, at paragraph 2.5.

**Question 4:** *Does the scientific method requirement exclude valid R&D in some sectors, please illustrate with examples?*

Yes, as explained in the answer to question 3.

**Question 7:** *Are there **any** reasons why the exclusions should not apply to support as well as core activities? Please describe.*

There is no reason why the exclusions should not apply to support as well as core activities: the support activities are an integral part of R&D. However, we suggest that the following exclusions should be reconsidered:

- *Research in social sciences, arts or humanities*

Please refer to the answer to question 8.

- *Commercial, legal or administrative aspects of patenting, licensing or other activities*

This exclusion should be clarified to ensure that it does not exclude searching of the patent databases to determine whether the intended research has already been done and resulted in an invention, and to identify what gaps there are or further problems to be solved.

- *Activities involved in complying with statutory requirements or standards*

Such activities fall into the development part of the spectrum, but are an essential part of taking research into the marketplace. There should not be a blanket exclusion of such activities.

- *The reproduction of a commercial product or process by a physical examination of an existing system of from plans, blueprints, detailed specifications or publicly available information*

Such reproduction is more commonly referred to as reverse engineering. If it is the first step in an R&D programme that results in a new and innovative product or process, it should be considered to be just that and not excluded. Businesses should not be required to start from scratch in every project. If the exclusion is intended to be comprehensive then it should also exclude decompiling of software as a first step in a software development R&D project.

- *Dual purpose activities*

Please refer to the answer to question 9.

**Question 8:** *Please provide any examples where social science research is/has been a core part of business R&D in New Zealand?*

While social science research has not traditionally been a part of business R&D in New Zealand, we expect that online businesses and social media develop and use algorithms that apply social science research, and suggest that MBIE seeks comment from those businesses.

**Question 13:** *What variations or extensions to the definition of core activities are required to ensure it adequately captures R & D software activities?*

The Law Society recommends that the definition of “core activities” should expressly include “software development”.

**Question 18:** *What are your views on the proposed mechanisms to promote transparency and enhance evaluation?*

It would be helpful if the data could be considered in the context of productivity data from Statistics New Zealand to see if any change in productivity coincides with any increase in business R&D expenditure. (Presumably, the assumption behind this policy is that an increase in business R&D expenditure should result in an increase in productivity.) This would assist in ensuring that any future changes in R&D incentives are evidence-based.

In addition, we note that incentivising R&D spending is a proxy for incentivising innovation. Naturally, any review of the effects of a tax incentive policy (if implemented) should assess not only whether R&D spending has increased as a result of the policy, but also whether that increase (if any) results in an increase in innovation.

**Question 19:** *Are there any other risks that need to be managed? Please describe.*

Schemes of this nature are vulnerable to manipulation and fraud. Audits by IRD inspectors assisted by Callaghan Science trained inspectors would assist to prevent or reduce such practices.

We hope you find these comments helpful. If you have any questions or wish to discuss the comments, please contact me via the Intellectual Property Law Committee secretary, Jo Holland ([jo.holland@lawsociety.org.nz](mailto:jo.holland@lawsociety.org.nz) / 04 463 2967).

Yours sincerely



Greg Arthur  
**Convenor, NZLS Intellectual Property Law Committee**

Appendix A, attached

## **Appendix A – Discussion document questions not answered in this submission**

**Question 5:** *What would the impact be on business R&D in New Zealand if a materiality test was applied to both the problem the R&D seeks to resolve and the intended advancement of science or technology?*

**Question 6:** *How well does this definition apply to business R&D carried out in New Zealand?*

**Question 9:** *What is the likely impact on business R&D in New Zealand if dual purpose activities are ineligible for the R&D Tax Incentive?*

**Question 10:** *What are the advantages and/or disadvantages of limiting eligible expenditure to R&D labour cost?*

**Question 11:** *What are the advantages and/or disadvantages of setting overhead costs as a percentage of R&D labour costs? What would the appropriate percentage be?*

**Question 12:** *Are there any reasons why expenditure related to R&D activities for which commercial consideration is received should be eligible for a tax incentive? Please describe.*

**Question 14:** *Are there reasons why continuity rules should not apply to tax credits? Please describe.*

**Question 15:** *Is the minimum threshold set at the right level? If 'no', please provide further details.*

**Question 16:** *How important is a cap or a mechanism to go beyond the cap? Please provide further details.*

**Question 17:** *What features of a Ministerial discretion or pre-registration would make them most effective?*

**Question 20:** *What are the risks with making external advisors liable in this way?*

**Question 21:** *What is the right level of information required to support a claim?*

**Question 22:** *What opportunities are there for customers to submit R & D Tax Incentive claims via third party software?*

**Question 23:** *What integrity measures do you think Inland Revenue should use?*