



**“Are Canada’s Business R&D Incentives Working?”  
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### **Conference Proceedings**

Prepared by Tim Lougheed

#### **Featured Speaker: Searching for a balanced system of innovation incentives: An International Perspective**

Jacek Warda, Managing Principal, JPW Innovation Associates Inc.

Warda began by describing the subject of these incentives as a wide and unexplored area that is constantly changing; his own interest lies with the daunting task of striking a balance between two key tools to promote innovation: tax incentives and direct support. “Looking for an optimal policy mix is next to impossible. The balance needs to reflect country context — with its economic and social needs — natural endowments, cultural values, and of course the global marketplace. So the balance is changing as we speak, because all these factors are changing.”

He added that policies tend to follow the trends that are put in place by these different factors, making it all the more difficult to change them once they are put in place. By way of example he offered Canada’s R&D tax incentive system, which is going on 20 years old even though much has altered.

With his first slide, Warda showed an international ranking of federal support for Business Expenditures on R&D (BERD) in a group of OECD nations, which puts the US at the top and Canada in second place. And we would be almost tied for first place if these figures incorporated provincial support, which is worth about \$1 billion annually. “We are really very heavily supporting R&D, and the main channel is tax incentives.”

That said, Warda pointed out that our very substantial support is not yielding higher business R&D intensity. In fact, our growth in this area is due to public sector R&D work., with higher education institutions leading the way. We have been able to raise that proportion to almost 2 per cent, mainly by building up public research organizations of one sort or another; at the same time, the business sector’s research efforts were losing steam. High tech industries in particular have had a hard time restoring their R&D to pre-2001 levels.

By way of contrast, he discussed figures for Austria, which has seen outstanding growth in its business R&D intensity. “Stable and growing — hopefully faster than GDP — business R&D spending is key to achieving higher R&D intensity in the future.”

He also noted a strong trend to improve R&D tax treatment over the last 5-6 years, especially in Europe and Asia. In measures of this change Canada tends to look stagnant, simply because our incentives are already among the most generous to be found anywhere. This is especially true for small firms, but we are almost as generous for large firms. In a listing of countries that take this approach, the top performers are those with relatively low research intensity, such as Spain, Portugal, Mexico, and the Czech Republic. On the other hand, countries with the highest research intensities — such as Germany and Sweden — are near the bottom of this list. Others, such as Japan and the US, wind up in the middle of the pack.

Canada’s system stands out as effective because it is enhanced with provincial subsidies of one sort or another, which is the icing on the cake of federal support. Yet within the larger context of OECD members, many nations are mounting tax incentives that go beyond simple R&D, to include activities such as enterprise formation, technology transfer, training, and collaboration between the public and private sector. A review of direct versus tax support among 17 EU countries reveals a major shift from the former to the latter, bringing tax incentives into fashion. Where there is direct support, too, it is not seen to be displacing the role of tax incentives. And the examples of Finland, Sweden, and Germany are especially instructive, as they have little in the way of direct support or tax incentives, yet maintain the highest level of research intensity. How they do so is a topic of intense inquiry.

The answer to this question may lie with the setting of national goals. Those goals fall into two broad sets of policy options: to increase the output of risky inventions over the long term, which could be done through a grant system, or to stimulate the general uptake of scientific knowledge in the private sector, which could be best achieved through a tax credit based on the volume of R&D conducted.

Looking to the future, he suggested that the pressure to address business innovation will continue to influence the policy mix in various countries. “Direct support will keep getting more attention, simply because it will be fiscally difficult to carve more funding for incentives out of the tax system. Tax credits will definitely survive, but in a more balanced policy mix fashion.”

In this regard, some countries are already engaged in policy experiments of one sort or another. With specific reference to Canada, Warda argued that it is time for us to do a comprehensive evaluation of our policy mix, especially the effectiveness of SR&ED tax credits. And we need to look at the overall business tax regime, since the burden of taxes on Canadian enterprises is still high compared with most other jurisdictions. “This doesn’t bode well for investing in knowledge.”

He added that the impact of business R&D incentives can likewise be muted if it appears that what government is giving with one hand is being taken away with the other. A quick fix might not be the best long-term solution, but it can address immediate problems. “This would work best with ongoing evaluations and monitoring, including sunset clauses.” Some countries do this often and well, such as Japan, making changes for no more than two or three year.

“The art of explaining tax expenditures lies in knowing where to stop.”— Roger Heath, Senior Analyst, Industrial Innovation, Industry and Science Policy, Industry Canada

A questioner noted that Warda had looked at how Canada was implementing tax incentives, but not why we are implementing them, or why we may not be doing them. Comparing such incentives with the motherhood virtues of vitamins, he asked why countries feel the need to engage in this activity. Warda suggested that the rates of return on R&D are so substantial that governments feel obliged not just to seek out these benefits through public expenditures, but to encourage the private sector to do so as well. “To get business interested, you have to increase the private rate of return somehow,” he said, arguing that governments are convinced of the need to do so, even if they cannot say exactly how these benefits are acquired.