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Tax Measures to Mobilize Science and Technology to Canada's Advantage

A Pre-Budget Submission by the
Information Technology Association of Canada

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The Information Technology Association of Canada (ITAC) is the voice of the Canadian information and communications technologies (ICT) industry in all sectors including telecommunications and Internet services, ICT consulting services, hardware, microelectronics, software and electronic content. ITAC's network of companies accounts for more than 70 per cent of the 589,000 jobs, \$137.6 billion in revenue, \$5.2 billion in R&D investment, \$22.6 billion in exports and \$11.5 billion in capital expenditures that the industry contributes annually to the Canadian economy.

Fiscal Measures to Mobilize Science and Technology to Canada's Advantage

The information and communications technology industry is one of the most mature, knowledge-based sectors in the Canadian economy. ITAC, the Information Technology Association of Canada, has existed for more than fifty years and, for much of that period, has endeavoured to provide thoughtful counsel to Government on the evolution of Canada's knowledge-based economy.

We were delighted to read "*Mobilizing Science and Technology Canada's Advantage*" which sets out a multi-year strategy for positioning Canada's leadership in science and technology. Our submission to the pre-budget process for 2007 is set against the backdrop of the aspirations expressed in this document, for they are aspirations we share.

We are grateful for the steps taken in the Budget of March 19, 2007 to address barriers to the adoption of new technology through the changes to capital cost allowances particularly to computer equipment and manufacturing technology. These were excellent measures to address the troubling rate of the under-adoption of technology by Canadian business. But they may not be sufficient. Prime Minister Harper himself noted that "... no country can remain prosperous and healthy without reinvesting a substantial portion of its wealth in science and technology." We believe that what is true for nations is also true for enterprises. We encourage the Government to continue to explore ways of accelerating the adoption of technology across all sectors either through extensions of CCA reform or through the introduction of direct incentives for technology adoption.

The primary focus of our submission this year is upon two issues either deferred or not addressed in "*Advantage Canada*".

We concur with the Government that "Canada needs a strong private sector commitment to science and technology." We believe that the announced intention to conduct re-examination of the Scientific Research and Experimental Development (SR&ED), with the aim of identifying opportunities to improve it, will be a huge step toward achieving that goal.

We also believe that Canada must be a magnet for talent. We must expand our domestic supply of highly qualified people and we must welcome smart men and women from all around the world. Welcoming them and keeping the talent we nurture requires a re-examination of our personal income tax structure in light of the competitive realities of the global knowledge-based economy. We believe that, having fulfilled a commitment to reform personal income tax rules at entry level in "*Advantage Canada*", the Government must now turn its attention to the highest marginal tax rate.

Reforming SR&ED

The Scientific Research and Experimental Development (SR&ED) program is a federal tax incentive program to encourage Canadian businesses of all sizes and in all sectors to conduct research and development in Canada that will lead to new, improved, or technologically advanced products or processes. The SR&ED program is the largest single source of Federal Government support for industrial research and development.¹ In 2006 the program disbursed over \$3 billion in tax assistance to Canadian firms.² The program has been designed by Finance Canada and is administered by

¹ "What is the SR&ED Program," Canada Revenue Agency, www.cra-arc.gc.ca/taxcredit/sred.

² "Mobilizing Science and Technology to Canada's Advantage" Government of Canada 2007, page 3.

Canada Revenue Agency through ten tax services offices across the country. Some provinces add a credit of their own based on the SR&ED.

The SR&ED program has been an instrument of Canadian public policy since the mid-eighties. At the time of its creation, it was an innovation itself in terms of government incentives to encourage R&D investment. But in the past two decades many other nations have created or improved their own programs to stimulate R&D. Some of these programs are specifically targeted to industrial R&D like the SR&ED program, but some take other forms of support such as real estate investments or other indirect means of support for R&D. This is an indication of the extent to which R&D activity and the ancillary economic benefits accruing from it (such as high value jobs, innovation and productivity and spin-offs) are prized by governments all around the world. Another factor that fuels the global competition for R&D investment is the mobile nature of this investment. R&D can occur virtually anywhere in the world with the right pool of highly skilled knowledge workers to perform it. This reality has helped to fuel the economic transformation occurring in relatively low cost jurisdictions in Asia and Eastern Europe. The combination of lower wage rates, mass production of engineers and scientists with advanced degrees and government support (direct or indirect) place Canada's position as an R&D-active nation under strong competitive pressure. Like any other economic activity, companies will locate their R&D operations wherever it makes the most economic sense. Those responsible for managing Canada's R&D facilities live and breathe this reality daily. They face pressure not only from their business rivals but internally with their own companies as well. They must regularly justify, based on the quality and cost of outputs, why research and development operations should remain in Canada.

The Federal Government contends that the SR&ED program is "one of the most advantageous systems in the industrialized world for promoting business investment in R&D." Without question, SR&ED has helped to fuel Canada's growth as a technology creating nation. But logically we should expect that a country with the most advantageous incentive program should expect to be among the top performers in business research and development investment. This is not the case. Canada ranks 14th among OECD countries for business expenditures on R&D, a middle-of-the-road position at best. Clearly what is considered the most advantageous incentive program is not achieving the results intended. This has puzzled Canadian policy-makers. ITAC, the Information Technology Association of Canada, believes that there are two key reasons for this disconnect between intent and results that are significant enough to prompt a review of the program. First, the program design precludes many of Canada's R&D investors from achieving any benefit from SR&ED credits. And second, ownership structures of many international R&D investors negate the ability of SR&ED credits to reduce the cost of the investment. Paradoxically, they serve to increase taxes payable in the jurisdiction of global headquarters, so they form a significant cost of the Canadian program, do not really affect R&D investment and actually transfer significant sums from the Canadian Treasury to a foreign government. We have attempted to draw the attention of Government to these problems since 2002. In view of the Government's expressed commitment to "identify opportunities to improve SR&ED," these issues are even more urgent.

The information and communications technology industry is, by a wide margin, the largest investor in private sector R&D in the Canadian economy. Our share of Canada's business research and development investment in 2006 was 39 per cent, about twice as much as any other sector. Of the top 10 corporate R&D spenders listed by Research Infosource in 2006, five are ICT companies.³

ICT is a global industry driven by the persistent need to improve and to discover new innovations. It is a mature knowledge-based industry with a long history in Canada. The industry contains a broad variety of companies ranging from start-ups, to global leaders worth billions of dollars. In Canada, our ICT community contains a healthy mix of strong Canadian enterprises as well as multinationals, many of whom operate research and development facilities here. This research and

³ Canadian Corporate R&D Directory Database 2006, Research Infosource, www.researchinfosource.com/top100

development contributes significantly to our industry's economic performance. Our calculated annual growth rate (4 per cent) leads the overall economy. ICT companies have used the SR&ED program since its inception. This has given us insight into the efficiency of the program in good times and in bad. Our calls for reform have revolved around one central recommendation: extend refundable tax credits to all business research and development investors.

Currently the SR&ED program functions in three ways, depending upon the nature of the claiming company. If that company is a small Canadian-controlled private company, it can earn a refundable tax credit of 35 per cent up to the first \$2 million of R&D expenses. This refund takes the form of a cheque payable annually to the company. For many young technology companies, this is an important, predictable contribution to cashflow and can contribute significantly to the viability of an emerging company. Other Canadian companies – including larger publicly traded Canadian companies – qualify for a non-refundable investment tax credit of 20 per cent. This takes the form of a deduction from corporate income taxes.

This seems like a sound incentive except when taxable income is not large enough to make full use of the credits. In the early part of this decade, the global technology industry experienced a major downturn. The result was that many of Canada's ICT companies, ironically including some of our largest R&D investors, could not access the full value of their credits. Literally billions of dollars of credits went into "carryforward" pools and it is likely that even with the return to health of the industry, many of these credits will be unused. More important from the perspective of incenting future R&D activity, companies with large carryforwards of SR&ED deductions and credits receive no benefit from credits earned on ongoing SR&ED expenditures even once they return to profitability, until those carryforwards are used up. As a result, companies with some of the largest R&D establishments in the country employing thousands of Canadians and producing world class innovation receive no credit for their R&D activity. And many mid-size companies that go through significant cyclical drops in profits, a not uncommon phenomenon, do not get the benefit of their credits at a time when they need them most. Yet these mid-size companies are often the fastest-growing over time and the source of our future world leaders.

For a third category of companies, profitable Canadian subsidiaries of multinationals, the non-refundable tax credit is available, but, depending on the tax treaty involved, it produces no direct incentive to maintain or expand R&D activity in Canada. These credits reduce taxes payable in Canada but increase taxes payable by the parent company in its headquarters' jurisdiction, particularly the United States. This effectively produces a flow of tax credits from the Canadian fiscal system into the U.S. Treasury without producing any incentive at all. This sizeable drain may help to explain why our credit program is not producing the investment results it should.

ITAC believes that an effective R&D incentive program needs to ensure that all investors in R&D have meaningful access to the credits they have earned. We have called upon the Government repeatedly to make all tax credits refundable.

We have given considerable thought to overcoming this flaw in the program so that it can generate more industrial R&D for the sums spent on it. The alternative design we would propose would allow companies to choose between a refundable wage credit (similar to that in effect in Quebec today) and a non-refundable SR&ED credit as it now exists. The choice could be made in each taxation year. The taxpayer would be choosing between immediate cash of a lower amount or a higher credit that might be useful in the future.

This would focus the refundable credit on companies with significant R&D work forces in Canada, helping to keep and grow our R&D centers here. The level of the non-refundable SR&ED credit and the wage credit could be set at whatever level resulted in an acceptable/affordable level of

tax expenditure.⁴ To the extent that companies choose the refundable wage credit over the non-refundable SR&ED credit, this would actually lower the tax expenditure while representing a more effective incentive.

The effect of the wage credit approach would be to focus the value of the credit on research and development wages. It would have several ancillary benefits. It would simplify the audit process for both the claimant and for CRA. It would also focus refundable credits on wages of SR&ED personnel, which would attract and retain knowledge workers in Canada. Unlike SR&ED credits for material and equipment (which can be sourced from anywhere in the world) a wage credit would contribute towards salaries which in turn contribute to personal tax, EI and CPP payments back to the Government.

Extending refundability in this fashion will require no new definitions and minimal changes to tax legislation. Overall it would achieve the objective of ensuring that SR&ED does serve as an incentive for any and all investors in business research and development in Canada.

ITAC is encouraged by the current indications that this valuable program will be examined and improved. We strongly encourage the Federal Government to undertake this process as quickly as possible in order to ensure that Canada occupies a meaningful place in the global knowledge-based economy.

Competitive Personal Income Tax Rates

In order to further ensure Canada's leadership in the global knowledge-based economy, we must come to grips with the realities of a labour market that is fiercely competitive and highly mobile. Canada is in a good position to both attract the best talent in the world and retain top talent in Canada, but our personal income tax rates are a significant barrier to realizing this potential. As our world flattens, we must come to grips with the competitive disadvantage which our high marginal tax rates impose on employers and employees alike.

Our annual survey of compensation levels in the IT industry shows that employees, such as those who perform integrated circuit design engineering, earn an average of \$150,000 Canadian. Salaries of this nature are commonplace in our industry and in many other knowledge-based sectors. Without a small army of employees with this level of skill, there would simply be no ICT industry in Canada and certainly no capacity for innovation.

Canada's highest marginal tax rate is currently applied on income over \$120,879. In short, it applies to a large contingent of the engineers, business developers, marketers and scientists necessary to the viability of our industry. In California and Texas (two jurisdictions of highest interest for the ICT industry) the highest marginal rate is applicable at \$319,000.

Knowledge-based industries succeed or fail on the strength of the scientific and technological expertise that they can attract. Expert level employees are arguably the front-line workers of our industry. Mercer, the leader in human resource consulting, has tracked salary levels in our industry for over a decade. They recently provided this analysis of the "expert" category of employee.

We examined pay for experts in high-tech organizations. Experts are uniquely qualified and influential individuals who innovate to create value in a knowledge economy. These individuals do not have supervisory responsibility, but are acknowledged experts within the industry with pre-eminent experience in a specialized discipline. Employees in this category are less common in the marketplace as they would typically have fifteen or more years of experience in a specialized field. This segment of the workforce is currently at risk as the baby-boom generation starts to retire. Approximately 1,500 employees are classed as expert level in the

⁴ "An Alternative for Extending Refundability of SR&ED Tax Credits," by Karen Wensley and Jacek Warda, ITAC, January 2007.

database. Pay at this level in the high-tech sector is generally around \$130,000 but could reach \$190,000 across all functional areas.

Expert Level Employees (C\$000's)	10 th Percentile	Median	90 th Percentile
Base Salary	80.9	116.8	164.0
Total Cash Compensation (includes bonuses)	91.2	129.8	191.8

For this last category of experts, we also examined a sub-set of high-tech employees who are technology focused and likely have advanced degrees or unique experience on which to draw. This group included such roles as R&D Scientists, Design Engineers, Sales Consultants and Integrated Solutions Experts.

For this core group of about 1,000 employees who are the key value-drivers in a high-tech economy, the maximum market pay levels are not significantly different than across all functions, but the typical or median pay is approximately \$5,000 higher at \$135,000.

Expert Level Employees – technology focus (C\$000's)	10 th Percentile	Median	90 th Percentile
Base Salary	84.6	121.2	168.7
Total Cash Compensation (includes bonuses)	93.3	134.9	187.9

None of the data presented here includes team leaders, first line managers or department heads nor does it reflect executive level pay. Further, it is important to highlight that the information presented here reflects only a portion of total taxable income. The high-tech sector has a strong history of granting long-term incentives such as stock options or share appreciation rights, especially to senior staff and key contributors. The value of such awards are not reflected in the data presented. Similarly, most employers provide benefits to employees which have taxable value. These components of total income can amount from 10 to more than 40% of income and should be considered in addition to the total cash compensation data in the survey findings.⁵

Canadian quality of life is an asset in the global competition for talent. But with our personal taxation burden so high, it is an asset that few can afford. Employers themselves are required to equalize by making their own salary adjustments to retain top talent. This employment penalty adversely impacts the competitiveness and productivity of any firm seeking a strong resource of highly qualified people.

We simply must re-examine Canada's marginal tax rates in light of the new realities of the 21st century. The measures discussed in the November 2005 Fiscal and Economic Update, to increase the income level at which the highest marginal tax rate applied, was welcomed by our industry as a progressive initial step that transcends politics. Therefore, we must reiterate our recommendation that the Government lower the top marginal individual tax rates and raise the income threshold for top marginal tax rates.

⁵ Mercer.