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DE LA TECHNOLOGIE DE L'INFORMATION

Competition Policy Review Panel

ITAC's Submission on Consultation Paper:
"Sharpening Canada's Competitive Edge"

January 2008

1. Introduction: ITAC and ICT Industry Perspective

The Information Technology Association of Canada (ITAC) is the national association of Canada's information and communications technology (ICT) industry. We are focused entirely on ICT and encompass the range of ICT interests, from hardware and software to services, content and microelectronics.

The ICT industry is a major Canadian industrial sector in its own right, as well as playing a unique role as an enabler throughout all sectors of the Canadian economy. The ICT industry contributes \$140 billion annually in revenues to Canada's GDP, as well as \$11 billion in capital expenditures. It employs approximately 600,000 Canadians and carries out over \$5.7 billion per year in R&D, which is about twice as much as any other sector and close to 40% of total business R&D in Canada, for an industry that represents about 5.5% of GDP. It is a highly globalized, knowledge economy industry. Its workforce is highly educated, with 41% having post-secondary education and average wages 45% above the Canadian average.

In addition to 600,000 employees directly involved in our industry, there are 500,000 ICT professionals employed throughout the rest of the Canadian economy. As explained further in the subsequent sections of this submission, ICT is recognized today as the key driver of productivity in a modern economy. This is true for a broad range of industry sectors, including industries viewed as traditional, such as manufacturing and natural resources. The ICT industry is a lead practitioner of the globalization of work and of value chains. Moreover, its technology is at the root of facilitating globalization, as noted in page 5 of the Consultation Paper.

The ICT industry thus has a unique perspective on the issues raised in the Consultation Paper.

Not surprisingly, ITAC has been doing a lot of work and thinking on the issues raised in the Consultation Paper. Indeed, we are currently engaged in an exercise to identify the determinants and levers Canada can affect to achieve the leadership position in terms of global competitiveness that we need to secure our future.

We very much agree with the assessment of Canada's position, advantages and challenges outlined on pages 3-4 of the Paper. Canada's strengths and successes must not make us complacent. We must pay close attention to our evolving competitive position as compared to other developed and developing economies, as well as other, smaller economies that are working

at improving their relative position. Fact is, we are slipping, according to studies from various sources, as indicated in the Paper.

2. Canada in a Global Context

QUESTIONS

- 1. Should Canadians be concerned about foreign takeovers of Canadian firms? How important is domestic control and ownership of Canadian business activities to Canada's economic prospects and ability to create jobs and opportunity for Canadians?**
- 2. How important are company headquarters to Canada's economic prospects and ability to create jobs and opportunity for Canadians? How important are global divisional head offices? What factors influence their location?**
- 3. How do Canada's policies impacting direct investment, both inward and outward, affect Canada's competitiveness as a destination for FDI and as a platform for global growth?**

As a general rule, Canada's ICT industry has consistently favored open markets for both trade and investment. ITAC also agrees with the thrust of the Consultation Paper to the effect that there does not appear to be a "hollowing-out" problem in the Canadian economy, notwithstanding the concern raised from time to time around high profile transactions. Indeed, similar concerns are raised from time to time around transactions involving takeovers of significant Canadian ICT firms.

There is no doubt that head offices are especially valuable, not only because of the high value jobs involved but also because significant domestic headquartered champions play a unique role in fostering economic and industrial ecosystems and spin-offs of related enterprises.

Most importantly, they provide an all-too-scarce resource to Canadian business. They educate a strong cadre of executive talent equipped with the rare skills of managing and growing companies at all stages in their development from start-up to global leadership. These competencies are particularly prized in the technology sector. Our ability to attract and grow global enterprise headquarters is one key measure of Canada's competitiveness.

However, the ICT industry in Canada has also benefited enormously over the years from global mandate centers or global divisional head offices, with numerous examples of significant facilities having an effect quite comparable to that of global headquarters.

In ITAC's view, while it is important to attract and keep such operations in Canada, the sound approach for doing so is not to think of impeding takeovers or undermining the openness of the Canadian market but rather, as set out at page 4 of the Consultation Paper, "... to maximize the opportunity of our domestic firms to grow into global champions and for our existing champions to further expand their reach."

In this regard, there is one significant issue that ITAC believes the Panel should address. Canada has many programs and policies to encourage small business. This is good since small businesses contribute significantly to the Canadian economy – indeed they represent a larger portion of the Canadian economy than in other countries.

Nonetheless, as the OECD has identified, Canada's public policies provide significantly greater support for smaller businesses than any other OECD jurisdiction; this brings the downside of an environment that may discourage the growth of smaller businesses through to mid- and large size.¹ This is the opposite of maximizing the opportunity of our domestic firms to grow into global champions and our existing champions to further their global reach.

Not only do these champions have the greatest value in and of themselves, firms that grow from small to mid- to large size contribute most to growth in employment, revenues, R&D and innovation. It would therefore be important to review our various policies to see if they have the impact of discouraging growth. ITAC knows that this is the case, for example, with respect to our SR&ED program, as explained below.

We also wish to emphasize the importance of the objective set out at page 6 of the Paper, to make this country the location of choice for the higher value elements of global value chains, whether led by Canadian firms or a part of other's supply chains.

What this means for Canada is that we must be strong in the key elements of the value chain that are required for commercialization of innovations. As a developed, relatively high cost jurisdiction with a well educated population, advanced technological development and high quality of life, Canada's future must be based on such high value jobs, and this means on leadership in development and use of knowledge, innovation and technology. This is true of all

¹ As discussed at the Conference Board of Canada's conference, "Tackling Canada's Future Prosperity: New Directions for Success," Ottawa, April 25, 2006.

sectors including natural resources. We should use the endowment we currently enjoy in terms of energy and other natural resources to invest in a sustainable position in the knowledge economy. Future generations of Canadians would justifiably never forgive us for squandering this endowment if we do not do so.

Productivity

ITAC will discuss in section 6 below the various elements on which we should focus our attention to achieve these policy objectives. But we will comment here on one that is discussed in this section of the Consultation Paper, namely our productivity performance. As pointed out at page 7 of the Paper, Canada's productivity performance has been lagging relative to the U.S. This is also true with respect to a number of other nations. We agree with the Consultation Paper that productivity is intrinsically tied to national wealth and well-being and that Canada's productivity performance will grow in importance given demographic changes and other factors. The high demand for our natural resources may be masking the impact of our poor productivity, but happily many public policy commentators and political leaders recognize the importance of attacking the problem we have with this fundamental driver of competitiveness and prosperity.

This issue is a top priority of the Canadian ICT industry. As pointed out at page 7 of the Paper, a key contributing factor is an apparent under-investment in machinery, equipment and technology. Indeed, studies show that employment and use of technology, and information and communications technology in particular, is the key driver of productivity in a modern economy.² A recent Statistics Canada study shows that advanced technology strategies are a high determinant of an individual firm's competitive performance.³

Unfortunately, Canadian business enterprises invest considerably less than their U.S. counterparts in information and communications technology. The problem appears to be concentrated in Canada's SMEs: they invest only 50% of what their U.S. counterparts invest

² The body of work on this topic is extensive dating back to work conducted by the U.S. Department of Labour Statistics in the nineties. See the Conference Board of Canada "IT and the New Economy: The Impact of Information Technology on Labour Productivity Growth," 1999. The Centre for the Study of Living Standards has explored this linkage exhaustively. See "Why Americans Are More Productive than Canadians." International Productivity Monitor 6, Spring 2003, "What Explains the Canada-U.S. ICT Intensity Gap?", December 2005 and, more recently, "Three Policies to Improve Productivity Growth in Canada," CSLS Research Report, December 2007. See all Path to the 2020 Prosperity Agenda Report of the Task Force on Competitiveness, Productivity and Economic Progress, November 2007.

³ Innovation Capabilities: Technology Use, Productivity Growth and Business Performance: Evidence from Canadian Technology Surveys, John R. Baldwin and Guy Gellatly, Statistics Canada, December 2007.

per worker in ICT. Since SMEs constitute a higher proportion of Canada's economy, the impact on Canada's productivity performance is particularly damaging.⁴

ITAC and its members have deployed considerable efforts to understand the cause of this so that solutions can be identified. We have commissioned studies of the Canadian and U.S. economies. We have carried out focus groups involving enterprises of different sizes that operate in both Canada and the U.S. We have commissioned studies on the attitude of Canadian SME leaders towards technology. The following elements stand out:

- Structural differences between the Canadian and U.S. economies (such as the relative importance of sectors more prone to use technology) have only a minor impact
- The lower Canadian dollar caused a quite logical substitution of labour for capital while it prevailed, yet this still leaves most of the gap unaccounted for
- Our high Marginal Effective Tax Rate on investment (discussed in section 6 below) also explains part of, but by no means all, the gap
- The risk/reward relationship means that, since the U.S. market is so much larger than the Canadian market, U.S. firms, including SMEs, are prepared to take on more risk and business transformation to achieve greater growth and competitive advantage. This in turn drives their local competitors to do the same
- Canadian SMEs lack the knowledge and understanding of how to take advantage of technology to achieve greater growth and competitive advantage. They do not have access to the qualified human resources to do so
- SMEs need confirmation from their peers or neutral parties regarding the advantages of technology and what they can do with it. The efforts of vendors in this regard are not sufficient

There is a public policy issue here. Productivity, and Canada's productivity gap in particular, is a matter of national importance. And governments have a unique role to play in addressing the problem.

Around the turn of the millennium, many governments around the world saw the benefits of encouraging business enterprises to adopt technology and e-business. Canada did this too (e.g. the e-Business Initiative). As the European Union pointed out in 2003, "With significant progress

⁴ See "What Explains the Canada-U.S. ICT Intensity Gap?", note 2 above.

having been made in Internet access by businesses, this in itself is no longer the main challenge, but rather the effective integration of ICT into business processes.”⁵

This is the issue that Canada must address today. Not only is it more difficult to change business processes to take advantage of technology, it is more important to do so since there is greater competitive advantage and productivity to be gained from such use of technology than there was from simply getting on to the Internet. And there is greater and more complex knowledge required. There is a public good from disseminating knowledge and best practices in the use of technology for competitive advantage that only governments can lead, through education, training and incentives.⁶

ITAC believes that the Panel should recommend such an initiative.

QUESTION

4. Do Canada’s economic policies appropriately reflect our increased integration with the North American and global economy? How might these polices be changed to better reflect this new competitive environment?

ITAC believes that our experience in increased integration with the North American economy should be used as a lesson in how we should face today’s reality, which is integration with the global economy.

Our integration with the North American economy has been a positive force. There is still a significant issue with the U.S. border, as noted at page 32 of the Paper. Canada’s ICT industry has been affected by this problem, not only for products but also for services where the movement of people is involved. Notwithstanding 9/11, Canada must continue to work to resolve this. The Partnership for Security and Prosperity may be a vehicle to do this but Canada’s ICT industry has not seen much in terms of results from these efforts in tackling significant problems on the movement of goods in particular.

But fundamentally the Canada-U.S. Free Trade Agreement and NAFTA were a wake-up call that Canadians answered positively and intensely. Integration with the global economy and securing our position in global value chains should equally be approached positively and with

⁵ Communication from the European Union, March 2003, Adopting e-business policies to a changing environment.

⁶ The Telecom Policy Review Panel also examined this issue and identified possible policy responses. See Chapter 7-1 of that Panel’s Final Report.

intensity. For example, the Canadian wine industry reacted very aggressively to the opening up of the North American market to change its business model and invest (with some government assistance) in transferring from low cost, low value production to one that would compete on a quality and value for money basis with European and U.S. products. As pointed out at page 6 of the Paper, “higher-value productive activity translates into higher wages and salaries, more occupational choice and a better quality of life for Canadians.” It is also essential to securing a successful, competitive position for Canada. In the ICT industry, there is a feeling that Canadians should exhibit a greater sense of urgency and intensity if we are to pursue this successfully.

3. Investment Policies

QUESTIONS

- 1. What impact has the ICA had on the Canadian economy and Canadian competitiveness, and specifically on our ability to attract FDI?**
- 2. What changes to the ICA and Canada’s investment review regime would help Canada address the challenges and complexities of the modern global economy, within the constraints of Canada’s international obligations?**
 - **What, if any, changes to the investment review process would enhance Canada’s competitiveness and improve Canadians’ understanding of the benefits of FDI?**
 - **Should the net benefit test be adapted to reflect the new competitive environment? If so, how?**

While ITAC members have been involved in transactions subject to the ICA, ITAC has no indication that the ICA represents an impediment or a barrier to investment in Canada. But ITAC does see the ICA as an opportunity to help Canada’s competitive position by fostering global mandates for innovative technologies and applications. We have highlighted above the unique importance of such operations.

Today there is a need for technology and innovation in all kinds of enterprises, not just technology businesses. As Canada has found with respect to the auto industry, Canada can be an ideal location for knowledge- and innovation-based work even in traditional industries, but is often not considered for this because firms will naturally look to their global headquarters locations for such activities.

Using the ICA to incent the creation or growth of global mandate operations involving innovative technologies or applications could in this way represent an important win-win for both the enterprise involved and for Canada.

SECTORAL INVESTMENT REGIMES – QUESTIONS

Canada maintains specific regimes to govern, review or restrict investment in six sectors: telecommunications, cultural industries, broadcasting, transportation services, uranium production and financial services.

- 1. What changes, if any, are required to Canada's sectoral investment regimes to minimize or eliminate negative impacts on Canada's competitiveness?**
- 2. What have been the impacts of these investment regimes on productivity and competitiveness in the specific sectors?**
- 3. Are there alternative mechanisms that would achieve the non-economic policy objectives of the sector while also ensuring maximum competitiveness of firms operating in the sector?**

The ICT industry involves telecommunications and some aspects of broadcasting, as well as the cultural sector to some degree.

As noted above, ITAC and Canada's ICT industry have for many years generally favored open markets for both trade and investment. We do recognize that the broadcasting and cultural sectors involve public policy objectives that go beyond economic considerations (notwithstanding that they are important economic sectors in their own right), and that they involve market distortion and potential market failure due to factors such as scale and restrictive policies of other governments.

At the same time, because of technology and market developments, telecommunications, broadcasting and culture, and indeed ICT generally, are becoming more and more converged, so different rules for different subsectors can create problems. The Telecom Policy Review Panel has addressed this issue and its views are useful to consider in this regard. ITAC would point out that, to the extent that one might use a shift from investment regulation to other regulatory tools, it should be recognized that these other regulatory tools must change substantially if they are to be effective in a world that is being fundamentally transformed by technology.

4. Competition Law

QUESTIONS

- 1. How does Canada's competition policy affect Canadian competitiveness in an environment of globalization and free trade?**
- 2. What changes to Canada's competition regime would enhance the competitiveness of Canadian firms in the global economy? What international best practices, if any, would strengthen Canadian competitiveness as a destination for foreign investment if we were to adopt them?**
- 3. Does Canada's approach to mergers strike the right balance between consumers' interest in vigorous competition and the creation of an environment from which Canadian firms can grow to become global competitors?**

ITAC does not have detailed views on the appropriateness or need to change Canada's competition regime.

We do recognize the importance of a sound competition regime to the competitive ranking of countries, in particular developed countries, as a destination for talent, capital and innovation. But while some of our members may have specific suggestions to make, ITAC can simply support the need to continue to review our regime to ensure it reflects best practices.

One area where ITAC and the ICT industry as a whole have shown specific involvement is in securing and maintaining confidence in the Internet as a fundamental element of a modern economy. ITAC participated in Industry Canada's SPAM Task Force. The recommendations of that Task Force and public policy discussions since have identified the need for legislative changes, enforcement activity and international collaboration on issues such as spam, malware, phishing, identity theft and personation which would include involving the Competition Act and the Competition Bureau. While not mentioned in the Consultation Paper, these kinds of improvements would have a positive impact on Canada as a destination for talent and investment.

5. Promoting Canadian Direct Investment Abroad

QUESTIONS

- 1. What barriers, either formal or informal, do Canadian firms face when seeking to make investments and acquisitions abroad?**
- 2. How should the government adapt its policies to promote increased Canadian direct investment and acquisitions abroad? What measures have been adopted by other countries that are relevant to Canada?**

- 3. Are there policies or approaches that would be useful in addressing the particular challenges faced by small and medium-sized enterprises as they seek to become global competitors and participants in global value chains?**
- 4. What impact does a higher-value Canadian dollar have on CDIA?**

One area that is of particular interest to the ICT industry is protection of intellectual property. This is a problem in a number of economies that are growing rapidly or are important locations for elements of a global value chain. Some governments like the U.S. have exerted direct pressure to address these issues but this avenue may not be as effective for a smaller economy like Canada.

Our members do report encountering barriers to investment, including informal barriers and formal restrictions on investment and control, particularly in some of the fastest growing developing economies. But ITAC has not been involved to the point of developing proposed solutions.

One comment regarding EDC and CCC: it has been ITAC's experience that while large Canadian ICT firms have been well aware of the assistance these entities can provide, smaller firms are much less aware and thus not taking advantage of assistance that would indeed be valuable to them.

Regarding the higher value of the Canadian dollar, this should put Canadian-based operations in a better position to make foreign investments and acquisitions. But for globalized firms for whom this would be of most interest, most of their revenues would be in foreign currencies so the higher Canadian dollar actually creates a challenge without providing additional funds for investment.

6. Becoming a Destination for Talent, Capital and Innovation

QUESTIONS

- 1. How can Canada better promote inward FDI? What policy change could contribute to the achievement of this objective?**
- 2. In particular, what mix of policy changes would be required to make Canada the preferred point of entry to, and location in, the North American market for the high-value activities of non-North American business entities?**
- 3. Is the modernization of Canada's competition and investment laws sufficient for successfully attracting foreign direct investment in Canada? What other priorities and policy issues should governments address?**

The modernization of Canada's competition and investment laws would definitely not be enough to resolve the very real issues and challenges we face in making Canada the destination of choice for talent, capital and innovation.

Regarding Question #2, the problem of the Canada and U.S. border referred to in page 32 of the Paper makes it a challenge to use Canada as an entry point to the entire North American market for activities that will require the significant movement of goods and even people to some degree across this border. There are, however, activities that do not require significant physical transborder movement and represent the very kind of high value activities that we are seeking: for example, research and/or development activities or high end technical support centres. Canada has an advantage at this time in keeping and attracting the best and brightest from around the world because of the difficulty and in some cases reluctance in getting people to go to the U.S. for such operations. This is an opportunity that should be seized in a manner commensurate with its huge importance to Canada's future.

In seeking to determine what mix of policies and policy challenges would be required, it is necessary to look at a range of factors such as those mentioned at pages 8 and 32 of the Paper. ITAC will focus on those where changes and improvements can be identified that will constitute effective levers to move Canada up to a leadership position. These are:

- Innovation / R&D / technology
- Skills / talent / human resources
- Taxation policies
- Access to and cost of capital
- Quality of life – healthcare

We have addressed another key factor in Section 2, namely productivity. ITAC is not suggesting that other factors be ignored. Rather ITAC believes that a full range of factors that can affect investment decisions should be monitored on an ongoing basis with a view to continuous improvement, even where Canada is already in a relatively good position. As the Paper points out on page 1, Canada is in a competitive environment that is both "global in scope and typified by fierce competition between national jurisdictions seeking to attract investment, people and economic opportunities." We are in a race, and standing still will not suffice.

For example, infrastructure is often one of the factors considered in making investment decisions. In this day and age, this is particularly true of communications infrastructure, notably broadband. Canada is generally considered to be in an advantageous position in terms of broadband infrastructure. But at ITAC our members have resolved to assess where we stand so as to be able to determine what needs to be done to ensure we achieve and retain a leadership position in the future. Similarly Canada is generally perceived to have a good business, legal and regulatory environment. But we would be remiss if we did not keep up our efforts to improve our regulatory regimes and our intellectual property laws (e.g. piracy).

ITAC sets out below its views and recommendations on each of the key improvement factors raised above.

Innovation / R&D / Technology

As noted at page 8 of the Paper, Canada's poor performance with respect to innovation is a consistent and significant cause for the slippage in our rankings made by a variety of organizations. In this regard, the World Economic Forum, the Conference Board of Canada, the Economist Intelligence Unit, and others use a variety of indicators to measure innovation. Some of these measures are "soft" (e.g. innovation in business processes) or are not necessarily conclusive (e.g. numbers of patents). One indicator that is clearly comparable, reliable and a challenge for Canada is R&D.

In terms of public spending on R&D, whether in government labs or educational institutions, there has been a significant improvement in Canada's position over the last decade or so. And Canada has a good reputation, as noted at page 8 of the Paper. While some concerns are being raised regarding ongoing commitment to government R&D,⁷ ITAC will focus its comments on business research and development, where Canada fares so poorly.

As mentioned at the outset of these comments, the ICT industry is by far the largest investor in R&D in the Canadian private sector. It has the greatest degree of experience with Canadian public policies and their impact on business R&D.

Canada's poor performance seems surprising in light of the fact that it is an advanced economy with a highly educated population and what is generally considered one of the most favourable

⁷ ReSearch Money, December 21, 2007.

programs to support business R&D, namely our Scientific Research and Experimental Development (SR&ED) tax credit program.

First, it should be remembered that in competing for R&D investment, other countries use a variety of incentives, such as subsidization of real estate, which can have a significant impact on investment decisions but do not show up in international comparisons of programs to support business R&D. Second, industries in other countries can sometimes benefit from significant R&D spending on public needs such as military that Canada simply cannot match in terms of nature or size.

Thirdly, and most importantly, Canada's SR&ED tax credit program needs to be improved. For example, it counts for nothing in the case of many investment decisions. This is the case for investors based in jurisdictions like the U.S. that have to add back to taxes payable in the U.S. on global income what they deduct from taxes payable in Canada. ITAC has been told repeatedly of cases where Canada's SR&ED tax credit is not counted in decisions to attract and keep a significant R&D operation in Canada because of this fact. Yet as the Consultation Paper points out, the U.S. is by far the largest source of inward FDI for Canada.

This would not be the case if the SR&ED was a refundable credit for these investors, since a refundable credit is treated differently by the U.S. Internal Revenue Service so that its positive impact on the overall corporation is not eliminated. But the credit is only refundable for smaller enterprises that are financed essentially in Canada.

It is as if Canada developed a program to attract automobile manufacturing plants, but the program only applied to small automobile manufacturing plants, not large ones. This seems to be upside down to what such a program should be attempting to incent. Most R&D by far is carried out in larger labs. And it is the larger labs that have the significant ecosystem, management, training and spin-off benefits that are characteristic of R&D operations.

The Federal Government is currently reviewing the SR&ED tax credit program with a view to making improvements. This is addressed in ITAC's issue paper, "Reforming SR&ED" (<http://www.itac.ca/MediaCentre/ITACArticles/pdf/07NovSRED.pdf>). ITAC believes that the Panel should express its support for such improvements, including the need to make the credit refundable for all investors.

Skills / Talent / Human Resources

Skilled human resources are the most important competitive asset in today's global economy. Even more so for Canada. Today high value jobs are technology and knowledge jobs, and there is more and more technology in every sector, including natural resources. Moreover, as explained above, Canada is compelled to succeed in the future based on leadership in development and use of technology, which means commensurate requirements in terms of skills and human resources.

Canada is well regarded in this area and has strong advantages: a well educated population; a diverse, open society; and an enviable quality of life. But we also have challenges to address. And we need to capitalize on our advantages with much greater intensity.

Our principal challenges are:

- A growing shortage of skilled human resources in technology. This is discussed further below
- Ongoing improvements of curriculum and training to ensure Canadians have the right total package of skills for success. In particular, Canada needs more people with a combination of management and technology skills and knowledge, as well as more people with the most advanced levels of post-secondary education and training
- A more competitive personal income tax regime. We note that the Federal Government has announced its intention to address this issue. This is not an expensive proposition in terms of the demands on our fiscal capacity, yet is essential if we are to truly capitalize on our advantages

On the basic issue of shortage of skilled human resources in technology disciplines, this is a problem shared by most developed economies. The solution is complex, but it can be and must be pursued:

- We must increase the flow of Canadians taking educational paths that will enable them to choose careers in technology
- We must intensify our efforts to bring in immigrants with the right knowledge economy education and training. As a country with a small population that is an open, attractive destination for immigrants, Canada enjoys a huge advantage in this regard but we do not appear to be capitalizing on it with the degree of intensity that it would merit

- We must do a better job of integrating skilled immigrants into jobs commensurate with their skills

Regarding increasing the flow of Canadians taking technology-compatible education and career paths, this requires encouraging young Canadians generally, and women in particular, to choose educational paths including mathematics and science that will enable them to work in technology-related disciplines. This requires reversal of a trend that has been apparent for some years in most developed economies. When Prime Minister Harper announced Canada's *Science and Technology Strategy*, he emphasized the need to tackle this issue.

The solution is not easy. We must get the message and the right information not only to kids, but to their parents and career counsellors. ITAC has identified a vast array of programs and initiatives, by our members, by Provincial governments, by NGOs and others to promote math and science, to promote technology careers, to interest young women in science and technology, and to provide co-ops and internships that help direct and attract students.

It is apparent that these many initiatives, while valuable and meritorious individually, are not achieving the desired impact overall.

ITAC has identified that the primary missing ingredient is overall strategy and coordination. There is a need to collect information on all that is being done, identify the gaps and the measures needed to achieve the overall goal. The other key missing ingredient is overarching communications that will provide reach and coverage for, and help effectiveness of the various individual initiatives.

ITAC has been working with the Ontario Government on a Talent Strategy for Ontario. The work involves the Ministry of Economic Development and Trade, the Ministry of Education and the Ministry of Training, Colleges and Universities. This work has confirmed that, as explained above, a lot is being done but there is a need for an overall strategy, and coordination to canvass what is being done and identify the measures needed to achieve the desired results.

We have also worked with other Provincial governments, such as Nova Scotia, on these issues. In addition, some of the leaders in our industry have created a coalition with business leaders in

other sectors to get the message out to Canadians about the attractiveness and importance of technology careers.

As for the Federal Government, it has announced a very laudable *Advantage Canada Strategy* that includes:

“A knowledge advantage, by creating the best-educated, most-skilled and most flexible workforce in the world.”

There needs to be a federally-driven strategy and coordination to achieve this goal and address the challenges described above. Some of the elements are in the Federal domain, such as immigration, or support for post-secondary education, or programs for internships and apprenticeships.

The Federal Government also supports over 30 human resource Sectoral Councils, such as the Information and Communications Technology Council, which bring private sector employers to the table to develop and coordinate human resource strategies for our country.

ITAC believes it is very important for the Panel to recommend that the Federal Government develop and implement a strategy to achieve the knowledge advantage that is part of the *Advantage Canada Strategy*, and to address the challenges and capitalize on the advantages discussed above.

Taxation Policies

Canadian governments have been making excellent strides in improving the competitiveness of the Canadian tax environment. ITAC particularly applauds the decision by the Federal Government to set a tax advantage and a fiscal advantage as key objectives of the *Advantage Canada* plan. We also applaud the efforts of Provincial governments to make improvements in the competitiveness of our tax regime, for example by eliminating capital taxes.

As a result, tax rates on corporate income and the marginal effective tax rate (METR) on investment in Canada are headed in a very favorable direction. There is a need to address personal income taxes, as indicated above, and our regimes for incenting and attracting investment in business R&D.

Beyond this, our biggest challenge in terms of marginal tax rate on investment is the application of the non-VAT Provincial sales tax to key ICT inputs such as software and telecommunications services in our largest province, Ontario. Harmonization of GST and PST has been achieved in much of the country. There is no PST in Alberta, and British Columbia has abolished its sales tax on software. Harmonization in Ontario would resolve this problem and make the biggest difference in the competitiveness of the METR in Ontario. It would also remove the significant paper burden and economic deadweight represented by the need for businesses to file separate and different returns.

ITAC understands that there are costs and shifts involved, as well as potential benefits, as between levels of government around harmonization. There may be alternatives that can achieve greater competitiveness without full harmonization. ITAC believes that the Panel should recommend that this issue be addressed and resolved with some sense of urgency.

Access to and Cost of Capital

The issue that needs to be addressed here is the difficulty faced by entrepreneurial start-ups in Canada to obtain the quality and quantity of financing that is needed through the entire cycle from start-up to maturity.

Many countries are trying to achieve this. The most successful is the U.S., with its vast and deep capital markets, including its large, knowledgeable, and experienced venture capital industry.

Canada cannot expect to replicate the size and depth of the U.S. capital markets. What it must do is: facilitate access by Canadian firms to that and other international markets (we still have barriers to this); create pools of funds and funds of funds; and encourage pension funds and other investors with large pools of capital to fund technology ventures.

There have been many efforts in this regard in recent years by the Federal Government as well as by Provincial governments. Québec and British Columbia are considered to have favorable programs and incentives. Ontario has recently invested in creating funds of funds. And Alberta is considering taking appropriate measures to incent and support investment in technological ventures.

We are therefore very much headed in the right direction, but our governments at both Federal and Provincial levels must keep up their efforts and continue to pursue best practices to put Canada in an advantageous position. Most importantly, we must consider the financing needs of ventures in a holistic way, rather than focusing only on certain steps in their life cycle.

Quality of Life – Healthcare

Canada has a good reputation for its quality of life. Healthcare is an important element of this. Moreover, the Canadian healthcare system is often cited as a competitive advantage, particularly in terms of cost compared to healthcare costs to enterprises in the U.S.

However, all is not well with our healthcare system. It can turn from a competitive advantage to a competitive disadvantage if its performance is such that it raises concerns for highly qualified personnel and their families about their ability to get the treatment they want on a timely basis. Furthermore, healthcare costs are rising as a proportion of government expenditures and trends for the future are disturbing, not the least of which because of our aging population.

These challenges in terms of cost and performance are not unique to Canada. But as the Conference Board of Canada has found⁸, Canada does not rank well among developed nations in value for money and performance, due to under-use of technology, ICT in particular. Yet the Canadian system, because of its characteristics of control and single-payer by Province, should lend itself better than most to using technology to achieve a high performance, cost-effective healthcare system.

We spend approximately 1.8% of Canada's healthcare budget on ICT; based on the experience of other countries that number should be more like 4%. Compared to private sector, mass-market information based industries (which is what the healthcare system is), the number should be higher still in order to achieve high performance and cost-effectiveness.

With the efforts of various Provinces and the support and coordination of Canada Health Infoway, we are beginning to make a dent in the problem. It is extremely important to pursue and step up these efforts, and most importantly, to invest in finishing the job on a pan-Canadian e-health record. This is a very important element of making Canada a destination of choice for attracting talent and investment in high value operations.

⁸ Exploring Innovation in Health Systems, Conference Board of Canada, August 2007.

QUESTION

4. What impact does a higher-value Canadian dollar have on Canada's competitiveness as a destination for investment?

The impact of a higher Canadian dollar on Canada's competitiveness as a destination for investment is mixed. It is economically advantageous for firms that source their inputs from abroad and sell their products in the Canadian market or another high value currency market. It is a challenge for firms that pay their inputs in Canadian dollars and sell their products in jurisdictions where currency values are dropping compared to the Canadian dollar.

At the same time, a stronger currency and the correction of the under-value of the Canadian dollar mean that Canadian enterprises should be focusing more on productivity gains through technology and innovation to achieve their success, which would then help Canada's sustainable competitiveness.

Overall, ITAC recognizes that the rapid rise of the Canadian dollar (in effect the rapid drop of the U.S. dollar in comparison to Canada's) has caused significant difficulty and disruption for Canadian-based operations. It has also made it significantly more difficult in terms of cost comparisons with other potential candidate locations for investment. While Canadian policy makers are quite sensitive to these impacts on very visible industries like forestry or manufacturing, it is extremely important to recognize that they equally affect knowledge work.

Nonetheless, ITAC does not believe that a low currency is a sound base for building a successful economy, particularly for a developed nation like Canada. Our response should be to focus more intensely on the factors needed and referred to above that will put Canada in a lead position in terms of total package for attracting talent, capital and innovation.

QUESTION

5. *What further could be done in Canada to promote an ongoing review of Canadian competition, investment and productivity performance aimed at Canada's sustained competitiveness?*

As explained above, ITAC believes it is important to review our competitive position on an ongoing basis. Standing still means falling behind.

ITAC believes that Canada, while geographically large, is small enough to coalesce around such an exercise and achieve exceptional results, as we did when we moved to North American free trade and to tackle our fiscal deficits. We are convinced that we can do equally well to achieve a world-leading competitive position based on world-leading development and use of advanced technology. This means that there should be an ongoing review of our competitive position at the national level, from which would flow concerted adjustments to our national strategy. This should be based on measurable targets and outcomes.

It would appear that Industry Canada is the natural government department to carry out or oversee such an effort. It may well be that entrusting the task to a high profile Blue Ribbon Panel, as was done in the case of the Competition Policy Review Panel but on an ongoing basis, would achieve greater visibility and thus better results.

7. Going Forward

At page 34 of the Paper, the Panel states:

“The Panel’s objective is to make public policy recommendations for improving the competitive environment in Canada. Ultimately, it will be through the commitment and ambition of Canada’s private sector as well as the vision of Canadian boards and managers that Canada’s competitiveness will improve.”

ITAC agrees. ITAC also agrees with the statement on that page that Canada’s competitiveness cannot be enhanced through a single policy or a single recipe.

At page 35, the Panel indicates that as part of its consultation process it will participate in a series of meetings with interested parties. ITAC is continuing its work on the factors and measures we should focus on to improve our competitive position and measure our progress. We would be pleased to bring together some of our members who have been working on these issues to meet with the Panel.