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réorientation professionnelle canada inc.

Achieving Canada's Skills Targets:

Re-Skilling The Knowledge Worker

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EXECUTIVE SUMMARY

This paper presents the arguments and recommendations for a Vitesse National Re-Skilling Initiative to address Canada's skills crises as it relates to meeting the changing skills needs of highly qualified professionals for the knowledge-based economy.

The success of the Vitesse Re-Skilling™ Model compels us to present to the Government of Canada a proposal to adopt the Vitesse Model as a national initiative across the country in support of Canada's Innovation Strategy. The model offers a low investment innovative solution to meet Canada's skills targets.

A country's greatest resource in the new knowledge society is its people. Helping Canadians improve their quality of life has been at the heart of the Government of Canada's economic and social policy choices. In the 21st century, prosperity depends on innovation and on the investments that the Government of Canada makes in the creativity and talents of the Canadian people.

Canada cannot afford to ignore the pressing challenges many countries are facing in today's global knowledge based economy – the shortage of talented and skilled professionals. Some key contributing factors and issues relating to the looming skills crises for Canada include the following:

- *declining projections for labour force growth;*
- *50% of the labour force of the year 2015 are already in the workforce and are going to require constant upgrading;*
- *immigrants are expected to account for all net labour force growth by 2011, and for all net population growth by 2031;*
- *increasing demand for post-secondary education by employers in the new economy. Already, one in four jobs today demand post-secondary education;*
- *global competition to attract highly qualified professionals will intensify especially from UK, Australia, Germany and USA;*
- *Canada ranked 17th among 47 countries surveyed by the World Competitiveness Yearbook 2000 regarding investment by employers on employee training.*

Evidence suggests that despite Canada's growing reliance on immigration to meet its requirements for Highly Qualified Professionals, the labour market outcomes of immigrants are weak and worsening even for those with higher education and better skills than Canadian born workers. It takes 10 years for the earnings of university-educated immigrants to catch up to their Canadian counterparts. According to Statistics Canada, in 1996, there was a 20 percentage point difference between employment rate of immigrants as compared to Canadian born workers.

These factors demand a new and innovative approach if Canada wants to attract and retain the most talented and innovative labour force as well as to fully utilize both the Canadian existing labour force and the immigrant population.

The 2001 Speech from the Throne recognized that no one government or organization could build a skilled workforce on its own. It must be a national effort. The Government of Canada recognized the vital importance of investing aggressively in the literacy, skills and talents of Canadians.

Despite large and often effective continuing education programs, our learning infrastructure has gaps and does not always adequately serve the needs of all adults, particularly those of the workforce. Insufficient prior learning assessment and recognition capacity is another important gap in our learning infrastructure.

In today's context of an intense global competition for highly skilled workers, the Government of Canada pledged its firm commitment to work closely with the provinces, the territories and with other partners: business and academic institutions on a national project to build a skilled workforce and an innovative economy.

The Canadian way entails an abiding national commitment, to sharing prosperity and opportunity: to the belief that economic success and social success go hand in hand: and that all Canadians should be afforded the means and the chances to fulfill their individual potential.

In 2002, the Government of Canada outlined Canada's ***Innovation Strategy*** in two papers: ***Knowledge Matters: Skills and Learning for Canadians*** and ***Achieving Excellence: Investing in People, Knowledge and Opportunity*** focusing on broad policies to achieve equality of opportunity and economic innovation in a knowledge based economy, where knowledge is considered as a strategic national asset.

The Vitesse National Re-Skilling Initiative is offering collaborative relationship with provincial, and territorial governments, business and educators in developing a national approach to face the challenges of the new, global knowledge driven economy of the 21st century.

The Vitesse Re-Skilling Model is based on the philosophy that every single Vitesse project should be adapted to the actual needs and preferences of the individual participating company. Therefore, flexibility is a key characteristic of every Vitesse project.

The Vitesse philosophy of strategic alliances with industry and educational providers ensures that programs focus on equipping students to apply their knowledge ingeniously to the solution of problems in the workplace. The practical relevance and flexibility of the programs is guaranteed through regular documented consultation with workplace and educational partners.

The Vitesse Model is based on an existing menu of course offerings provided by a variety of educational institutions with unique expertise in specific disciplines of interest to industry.

Sponsoring firms can select courses from the menu to develop a program that is tailored both to their specific needs and the capabilities of selected candidates, including the need for specific soft skills. Courses may be either classroom-oriented or self-study and each academic semester typically requires completion of five courses. Academic semesters alternate with work terms until training is completed.

During pre-program screening, candidates are matched with a sponsoring company. Sponsors cover both the costs of tuition and work-term salaries. During the work terms, students are assigned to a training-related project, which provides valuable hands-on experience.

The advantage of this "just-in-time" approach (which we term the ***Vitesse Triad***) allows Vitesse's programs to respond very quickly to evolving industry needs, while at the same time ensuring that the student is equipped with leading-edge skills which are genuinely in demand.

The implementation of the Vitesse National Re-Skilling Initiative will address the skills needs in all regions of the country so the Highly Qualified Professionals in each of these areas have an opportunity to re-skill and be utilized to meet the needs of industries in those localities. In this way, Canada will ensure that every region of the country is part of the innovation economy and is able to use the necessary resources for the growth of emerging innovative sectors.

The implementation of the Vitesse National Re-Skilling Initiative will create an effective interface engaging academic institutions, small and large businesses, as well as provincial and territorial governments to meet Canada's needs for re-skilling HQP in building a dynamic and innovative society.

It is increasingly clear that investment in workplace training and the refreshment of technical skills must increase if Canadian industry is to remain competitive. This is particularly true for emerging knowledge sectors – informatics, biotechnology including genomics and bioinformatics, nanotechnology and photonics for example – which offer the greatest promise for a new round of economic activity.

In contrast to many of our trading partners and competitors, Canada spends very little on workplace retraining. Only 31% of Canadian firms participate in such programs, compared for example with 75% in Japan and 80% in the UK.

As Vitesse has demonstrated, the investment need not be great. Most of the elements needed to ensure that future skills requirements are met are already in place. Nor is there a need to invest in costly new training infrastructure and facilities. What's required is more innovative delivery systems for the knowledge and know-how already present within our existing educational institutions.

Vitesse has demonstrated that such mechanisms do exist and that the programs we have developed can serve as the pilot for a broad-based national program capable of responding to skills gaps in every sector of the economy. Our re-skilling methodology has already proven itself in several critical applications and we believe it can be readily applied in virtually any industry for any skills set.

Skills development programs like those of Vitesse need not be encumbered by questions of jurisdiction. Because it is a collaborative approach involving a wide range of public and private sector partners on the basis of clearly defined goals and objectives, the Vitesse Model can be applied at a national, provincial or regional level.

It is proposed that under the Innovation and Skills Agenda of the Government of Canada, the Vitesse Re-Skilling Model be made an important component in Canada's efforts to build a globally competitive workforce as it offers a cost-effective and innovative solution to Canada's continued need for a skilled labour force for the 21st century.

Arvind Chhatbar,
President
Vitesse Re-Skilling Canada Inc.
September 2002

SKILLS IN THE INNOVATION ERA

Countries are becoming more and more aware that they must increasingly turn their attention to the level of knowledge and skills (often termed as 'human capital') of their populations if they are to be globally competitive. There is growing agreement of the importance of knowledge and skills for economic growth. Technological change and innovation through their effects on production methods, consumption patterns and the structure of economies are closely related in recent economic growth performance.

Ingenuity has always been the hand-maiden of progress but it takes on even greater significance in today's knowledge-based economy. As the focus of economic activity shifts away from the exploitation of natural resources and goods production to the creation of services, and as knowledge and information become the key commodities in a global marketplace, a skilled labour force is vital to innovation and competitiveness.

Recognizing that global competitiveness in turn requires a climate which fosters innovation, Canadian governments are considering a wide range of measures intended to both encourage innovation and facilitate the more rapid transfer of technology from researchers and developers to industry.

The success of these efforts is, however, predicated on industry's access to a workforce with the skills needed to assimilate new technologies and translate them into marketable products and services.

Further, almost half of the labour force needed by 2021 is already working and — by 2011 — virtually all-new entrants into the workplace will be immigrants. In both cases, past experience suggests that a huge investment in retraining and re-skilling will be needed, both to keep the skills of existing workers up to date, and to upgrade the skills of new Canadians in order to prepare them for work in a North American context.

The simple fact is that although Canada's workforce is justifiably regarded as one of the best in the world, there is a general consensus that it is falling behind in terms of its ability to ensure long-term productivity and competitiveness. According to most informed observers, dramatic improvements in the both the quantity and quality of Canada's labour force skills are needed to maintain the pace of innovation.

In response to what is now generally perceived as a rapidly emerging crisis, the Government of Canada has focused on the skills challenge as a key element in its still emerging plan to strengthen Canada's capacity for innovation.

The recent release of discussion papers on the issue from Human Resources Development Canada and Industry Canada clearly signals that solution of the skills crisis is a key element of the emerging innovation strategy and an important item on the nation's agenda.

As the authors of Achieving Excellence take pains to point out:

> “ *to succeed in the global knowledge-based economy, a country must produce, attract and retain a critical mass of well trained people. The demand for high-level skills will continue to grow in all sectors, and competition for highly-skilled workers will intensify within Canada, and between Canada and other countries.”*

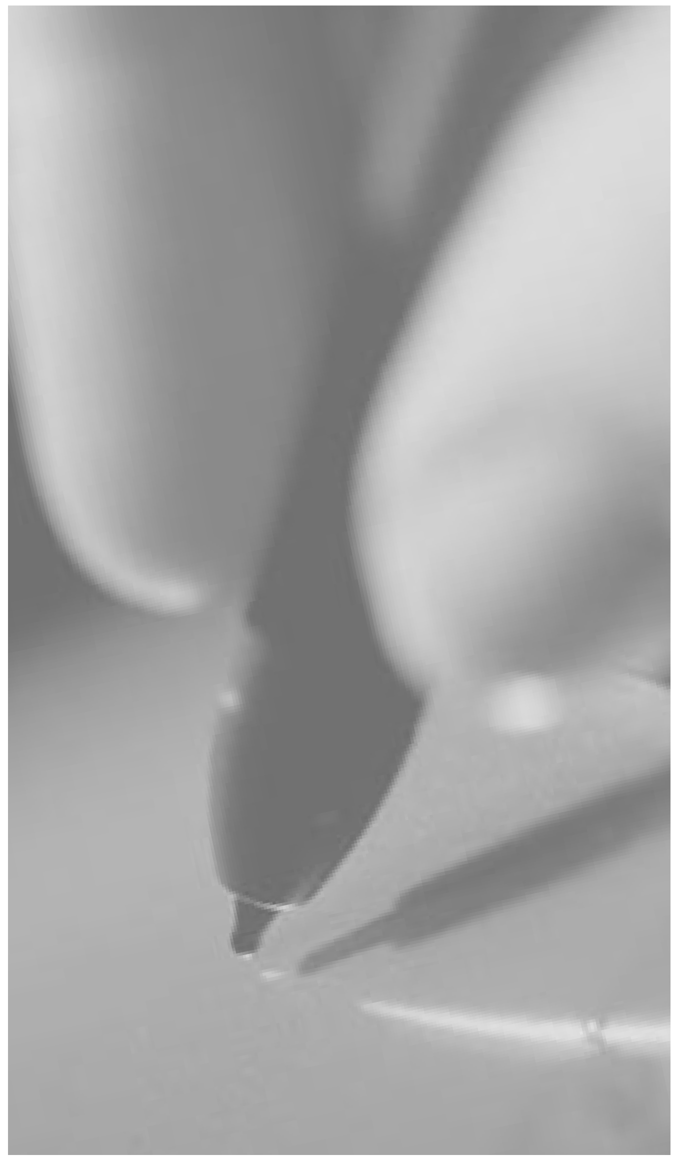
Nor will it be enough, they add, merely to increase the capacity of existing educational facilities:

> “ *to remain competitive and to keep up with the accelerating pace of technological change, Canada must continuously renew and upgrade the skills of its work force. We must provide opportunities for workers to improve and upgrade their skills and acquire new ones to meet the changing skills demands of the new economy.”*

Consistent with its goal to “develop the most skilled and talented labour force in the world”, Achieving Excellence outlines a number of key targets. Among them:

- *Over the next five years, increase the number of adults pursuing learning opportunities by 1 million.*
- *Through to 2010, increase the admission of Master's and Ph.D students at Canadian universities by an average of 5% per year.*
- *By 2004, significantly improve Canada's performance in the recruitment of foreign talent, including foreign students, by means of both the permanent immigrant and temporary foreign workers programs.*

Clearly, the achievement of these targets will require a nation-wide effort involving a broad coalition of private and public sector institutions. Vitesse’s re-skilling models methodologies and programs represent a potentially important contribution to that effort.



SKILLS SHORTAGES — A FEATURE OF THE NEW ECONOMY

Unfortunately, a combination of factors is already having a dampening effect on Canada's ability to retool its labour force. According to research by the Conference Board of Canada, these factors will result in a shortfall of nearly a million workers by 2021. As the sheer scale of the problem attests, the requirements of the knowledge-based economy are no longer confined to any one industry or sector. Every Canadian industry, from forestry and agriculture to manufacturing and financial services, now competes on the basis of skills and innovation.

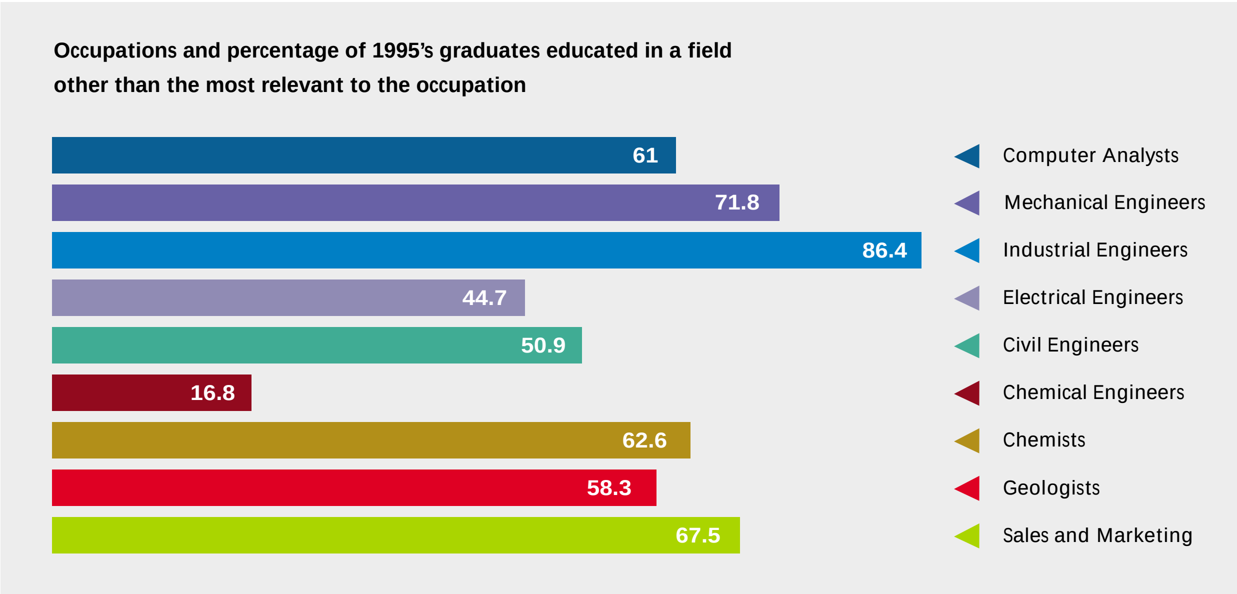
At a recent information technology industry "Town Hall" meeting in Ottawa, executives from local firms unanimously agreed that their biggest challenge continues to be the insufficient number of qualified graduates being produced by local post-secondary institutions.

In a parallel development, a survey conducted by Deloitte and Touche predicts that genomics, biotechnology and health care firms are likely to be the biggest recipients of new investment in the near term future. Ontario's government has already committed itself to make the province the third-largest biotech hotbed in North America but acknowledges that to do so will require a huge increase in the number of life science professionals qualified in such areas as genomics, bioinformatics and molecular biology.

Concern about access to skills is not a new or transitory phenomenon. Nor is it unique to any one province or region. Since the mid '80s, the shrinking pool of critical skills has been a source of grave concern to all Canadian firms whose ability to innovate and compete depends on access to leading-edge technical and scientific knowledge.

Increasingly, however, the growing shortfall in workplace skills has begun to impact the full spectrum of Canadian industry. In a growing number of occupations, from taxi drivers to hard rock miners, new technology is being applied to improve productivity and respond to quickening competition. As Peter Drucker observed, "the world is becoming not labour intensive, not material intensive, not energy intensive, but knowledge intensive."

In a knowledge-based society, ever changing economic, community, and individual learning challenges arise from rapid transformations in the technologies shaping industry and work processes as well as from the demographic and geopolitical forces affecting the daily activities of communities and citizens. Knowledge in the new economy will need to be by its very nature, trans-disciplinary and non-linear. With the aim of creating innovative methods, processes and applications, those applying knowledge in the new economy will need to cross disciplinary boundaries, and consistently explore the interfaces between disciplines in developing competitive industry solutions.



The emergence of a global knowledge-based economy has created an ever-increasing demand for a skilled and well-educated workforce at every level of the economy. The revolutionary advances in information and communications technology have transformed the way in which people work, produce and consume. As a result, skills required for many traditional occupations are changing rapidly and, in an economy which is increasingly knowledge-based, many skills are in danger of obsolescence.

As noted in Knowledge Matters:

" By 2004, more than 70% of all new jobs created in Canada will require some form of post-secondary school education and only 6% of new jobs will be held by those who have not completed high school."

" Canada is already facing structural skills shortages in occupations such as nursing, engineering and management. The Canadian Federation of Independent Business reported that in late 2000 up to 300,000 jobs were vacant because of a lack of suitable skilled workers. "

Shortages of both technical and cultural skills are particularly acute in such high tech industries as informatics, aeronautics, biotechnology and the life sciences. Firms operating in these fields have long noted that difficulty in identifying, acquiring and retaining critical skills is a significant constraint on their growth.

In these industries, not only is there an absolute shortage of skills in leading edge disciplines, but the pace at which new technology is transferred from the development laboratories and universities to the workplace lags well behind industry needs. The sheer velocity of technological change is such that failure to recruit and retain what, in some cases, may be a relative handful of well-trained knowledge workers in a few key disciplines may make the difference between survival and failure for many firms.

CANADA'S CHALLENGES

Although demand for critical skills has been increasing for some time, it is only in the relatively recent past that the dimensions of the problem and its economic consequences have been fully appreciated.

Three key imperatives underscore the need to focus on improved skills creation strategies at this point in Canada's development: the demographic trends, the need for continuous learning, and the institutional inadequacy of the learning infrastructure.

The Demographic Trends

The new economy's skills challenge is further enhanced by Canadian demographics, which is characterized by the large-scale retirement of baby boomers and the ageing or our population. As a result, Canada's labour shortage is expected to reach 950,000 by 2020. The stark reality is that future labour supplies are unlikely to keep up with demand.

Furthermore, total labour force growth, as a proportion of total population growth in Canada has declined in the last decade and there is a shift in age distribution (with the most dramatic increase in the 35-51 age group) within the labour force between 1986 and 2005. By 2011, in fact, all net labour force growth is expected to come from immigration.

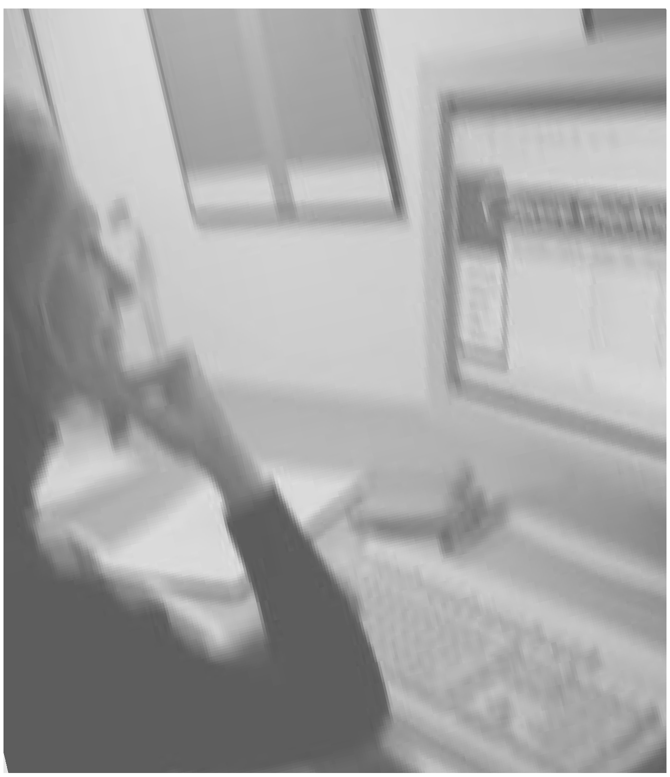
Moreover, Canada will face increasingly stiffer competition from other countries, both for skilled immigrants and for native-born talent. The so-called "brain drain" to the US, for example, has already led to skills shortages in a number of critical industries – most notably information technology and telecommunications. The scope and significance of this phenomenon has been discounted in some quarters, but high-tech industry leaders continue to report a steady loss of talent to the US and elsewhere.

Given the age distribution shift, most of Canada's workers are already in the workforce. Add to this the ever declining birth rates and the scenario facing the Canadian economy comes into clearer view.

The Need for Continuous Learning

Canada shares the increasing intensity and relevance of information communication technologies to our national economy with many other industrialized countries. Of 139 occupational categories studied by the Conference Board of Canada recently, an increasing number can be identified as "fundamentally technical" in nature and these categories accounted for more than sixty percent of total employment created between 1990 and 1999.

The Board states, in their most recent performance report, that the fundamental change in the nature of work to include higher technical content underlines the need for lifelong learning and continuous training in the workplace. In addition, for Canadian industries to remain competitive, the country must continue to graduate ever-greater numbers of people from post-secondary institutions and continue to train people throughout their lives.



Unfortunately, after graduation, Canadians are poor performers in terms of continuing education opportunities. According to the Conference Board of Canada's Training and Development Outlook 2001, training investment per employee in Canada is in the $800-$850 range annually and has remained so since 1993. The International Institute for Management Development's World Competitiveness Yearbook rated Canada as 23rd out of 46 countries in employer supported learning in 2000.

Much of the continuous learning opportunities for today's labour force derive from information workplace and on-the-job learning. Too often however, industry practices in this regard are inconsistent, and given the mobility of knowledge workers from position to position and potentially from industry to industry (a feature of the new economy), these inconsistencies would not serve the overall goals of a nation in advancing towards global competitiveness. Industries have difficulties in developing competence-based learning systems and there is often little incentive for them to do so due to market failures such as "cherry picking".

It is clear that there will be a need for formal continuous or lifelong learning by knowledge workers and that need will have to be served primarily by higher education institutions.

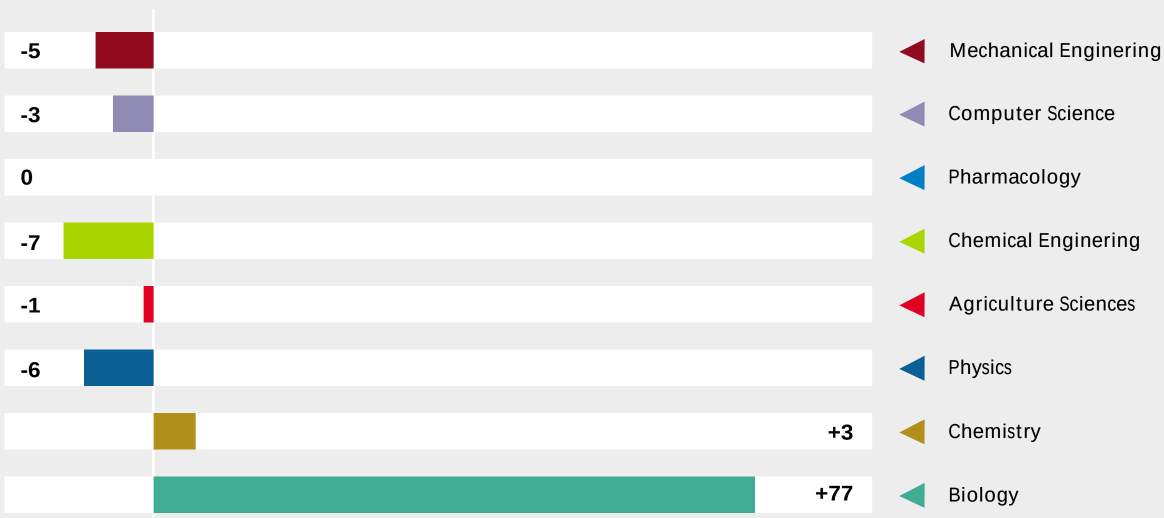
The Institutional Inadequacy of Learning Infrastructure

Although Canada enjoys the world's highest level of participation in post-secondary education, it is increasingly clear that our learning system is not adequate to the task of meeting future skills and labour force demands.

Already feeling the strain, it is increasingly apparent that Canada's educational system will not be able to meet the demand skilled workers without significant assistance from other quarters. In 1999, only one job in six required post-secondary education but within the next two years, one in four jobs will demand a university degree. The Conference Board points out that between 1990 and 1999 there was an increase of 2.25 million in the number of job opportunities for Canadians with post-secondary education and a decrease of 800,000 for those with less than high-school education. Unfortunately, in many disciplines deemed critical by Canadian employers, university enrollments are either not increasing fast enough to meet demand or are relatively static. Indeed, in some areas enrollments appear to be declining.

As currently structured, Canada's education and training establishment is inherently incapable of delivering new skills as quickly as they are needed in newly emerging, leading-edge industries. The sheer velocity of technological change and the rapid emergence of entirely new disciplines is simply too great for traditional institutions to keep pace.

Percentage growth as academic enrolment in fields related to Biotech 1987 – 1997.



Source: NRDC, Job Futures Canada, 2001.

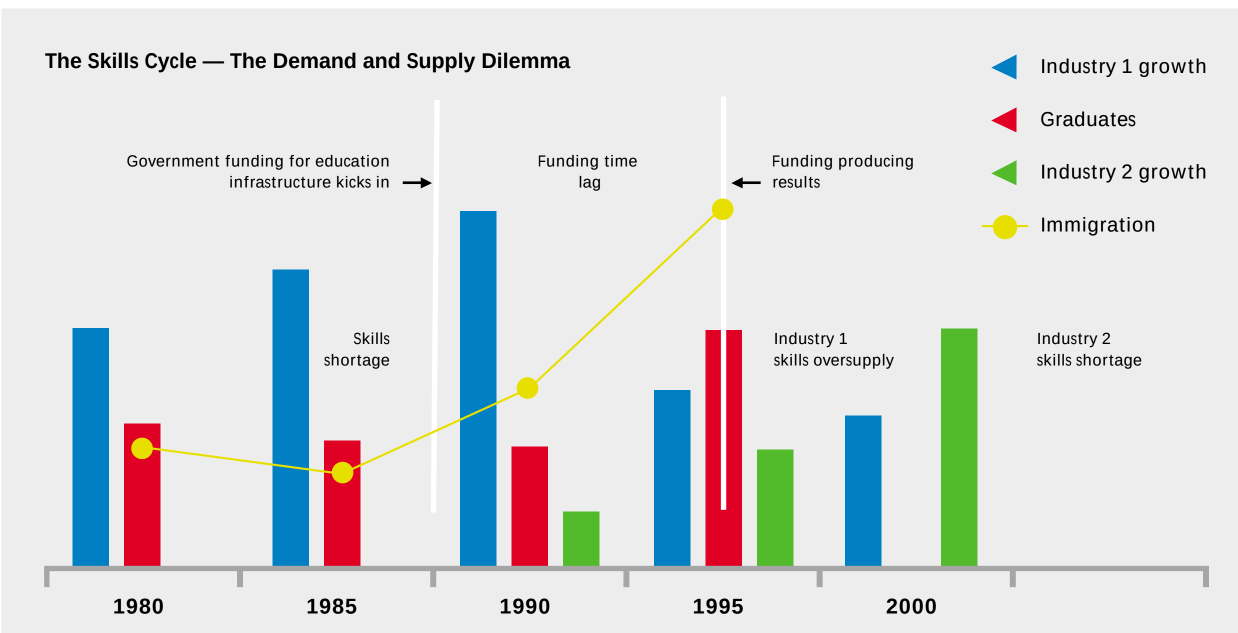
Universities today are typically institutions defined in the 19th and early 20th centuries, which were geared to serve a developing industrial economy. The basic educational infrastructure remains unaltered despite the emergence of new technologies: faculty, classrooms, labs, curriculum development, and length of degree programs.

Higher education institutions, and universities in particular, continue to be organized primarily along traditional disciplinary boundaries. The very nature of their curriculum building process means that formal recognition of a “new” discipline does not occur until a relevant industry has already achieved significant growth. Ironically, by the time political and financial support is forthcoming for new curricula, demand for critical skills is already in decline. The resulting time lag for the supply of new skills to catch up with employer demand is too long.

Inherent in the problem is the conflicting demands placed upon educational institutions to provide both education and training. Education provides knowledge and the preparation for lifelong learning while training is concerned with the development of skills already in demand by employers.

The problem today is that our universities no longer serve industry or the economy as effectively as they used to. As we move from the industrialized to the new knowledge economy, Canada needs post-secondary institutions that are as dynamic, innovative and rapidly changing as the economy itself. Adults and the organizations that employ them need to develop lifelong learning relationships with universities.

Despite some examples of innovative activity (e.g. science parks, incubator firms, centers of technology transfer), universities in the new knowledge economy no longer



have the field of knowledge production to themselves. Universities are simply one actor amongst many contributing to the flow of knowledge and information that propels the process of technological and economic innovation. It will be important for universities to rethink their relationship (and the implications for programs) with industry, governments, and other knowledge-producing institutions.

Universities are not currently structured and therefore not well positioned to address the needs of the new knowledge economy. Both the state of knowledge in contemporary times as well as its growing value to diverse spheres of human behavior is giving rise to a new form of knowledge production that is highly dynamic, trans-disciplinary, less reliant on single institutions (that is universities) for expertise, and more socially responsible.

This fact is further complicated by the segmenting of academic programs to be core and non-core and continuing education programs tend to fall into non-core categories. On the other hand, it is current continuing education units at higher education institutions that are geared to serve the growing demands (and demographics) of the knowledge worker population. This is particularly pertinent in Ontario at the current time, where there is a clear disconnect between the recognition of the needs of Ontario's future labour force, and the role of higher education institutions in terms of training adult workers.

Clearly, it is increasingly important for universities to explore trans-disciplinary approaches across the range of academic programs (there is some experience in this respect in fields related to engineering, environment, business). But it would also appear important for universities to be more in tune with the needs of students who will make up the nation's knowledge labour force.

Obviously the two are related and universities are working hard to provide a balance between them. At the same time, however, more agile mechanisms are also needed. Such mechanisms should be capable of identifying new requirements early in the industrial development process and developing appropriate training programs quickly and effectively.

CANADA'S HIDDEN WORKFORCE — UNDERVALUED FOREIGN-TRAINED PROFESSIONALS

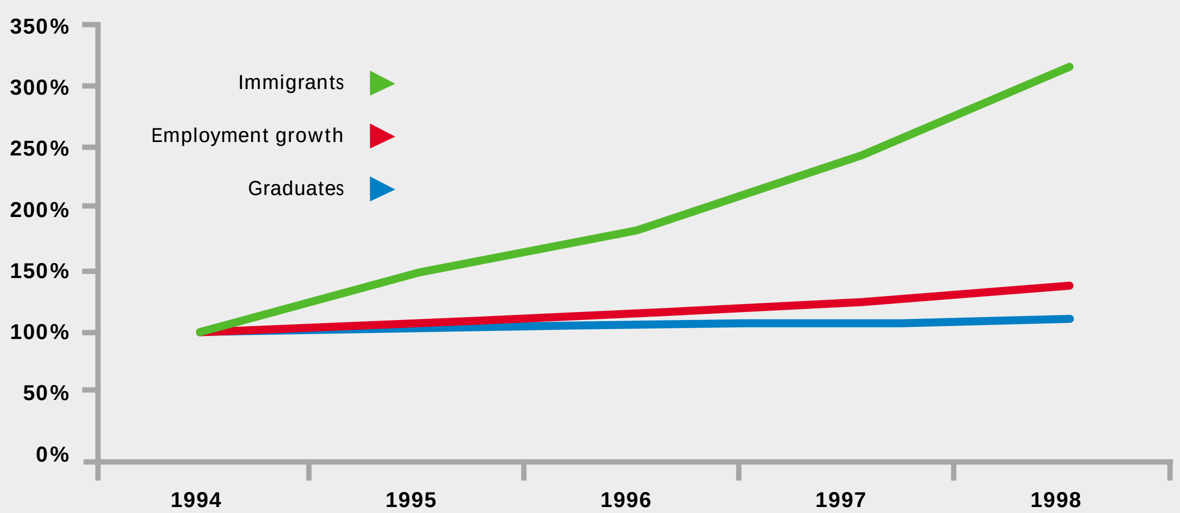
As pointed out above, the new entrants into the labour market are being increasingly foreign-trained professionals who also need bringing up to speed. According to Human Recourses and Development Canada, between 1991 and 1996 the Canadian labour force grew by 608,000 individuals of whom 431,000 were immigrants. Furthermore, immigrants are expected to account for all net labour force growth by 2011, and for all net population growth by 2031.

As all commentators on the skills challenge are quick to acknowledge, a skills-based immigration program is a critical element in any potential solution. Unfortunately, despite policies intended to strengthen the labour force by admitting immigrants on the basis of educational achievement and technical training, many new Canadians continue to be grossly under-utilized.

Paradoxically, at a time when industry is expressing growing concern about the difficulty of recruiting and retaining human resources, valuable immigrant skills – particularly the high-level technical and professional skills so much in demand—are being wasted.

This is not, by any means, a new development. Immigrants have always faced difficulties integrating themselves into their adopted societies. In recent times, immigrants have complained of discrimination and the low value Canadian employers attach to overseas education and work experience. Accounts of foreign-trained engineers and doctors driving taxis or waiting on tables are deeply woven into the fabric of the immigrant experience. Nor are such tales to be discounted as the stuff of urban myth. Indeed, there is growing evidence that the situation is worsening.

The Skills Cycle — The Demand and Supply Dilemma



Even with higher education and better skills, immigrants are now less successful than Canadians born workers with equivalent education. It takes up to 10 years for the earnings of university-educated immigrants to catch up to those of their Canadian counterparts.

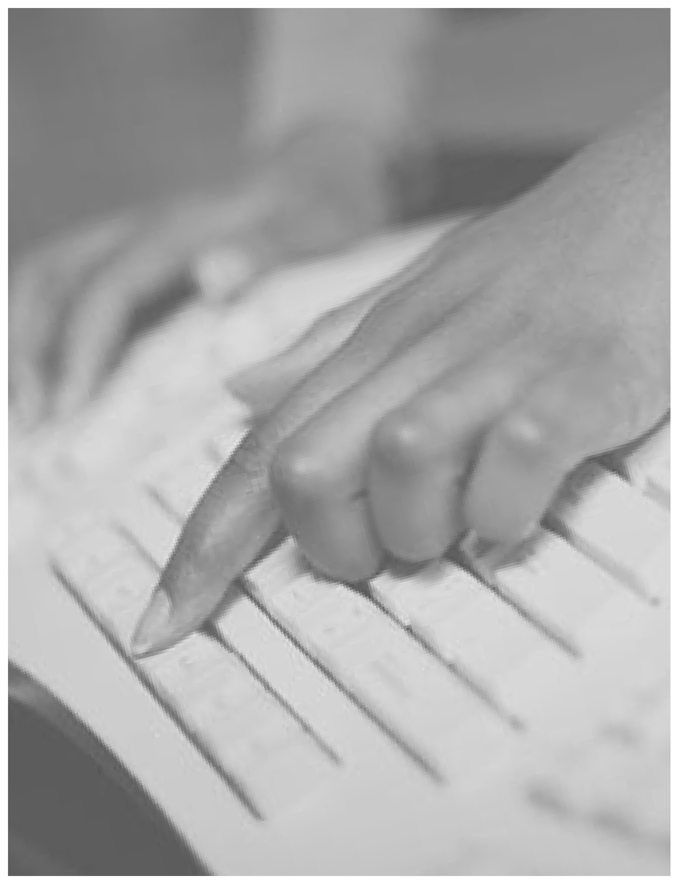
The reason for this "integration gap" is that immigrant skills are being discounted. In fact, the extent of this discounting has actually increased. While the mainstream workforce participated in the move toward the knowledge-based economy and the value of educational skills has increased, the relative value of immigrant skills has actually declined.

The significant disparity in income between native-born and naturalized Canadians is the result of several interrelated factors. Difficulties in assessing the equivalent Canadian value of particular training and professional education, the reluctance of professional licensing bodies to grant credentials to immigrants trained overseas, and the inherent problems of determining the relevance of foreign experience to Canadian needs all contribute to the under-valuation of immigrant skills.

An increased emphasis on credentials in the labour market has changed the process by which immigrant skills are perceived and evaluated. The importance of credential might be expected to enhance objectivity. However, immigrant credentials are not understood or recognized. For immigrants, the trend seems to be toward exclusion from the knowledge based economy.

Consistent with numerous studies, data from the 1996 census micro-data show that the impact of underutilization of immigrant skills on Canadian economy is significant. In 1996 dollars, the total annual immigrant earnings deficit was $15 billion.

A number of researchers have documented the trend, among them Dr. Jeffrey Reitz in "Immigrant Skill Utilization in the Canadian Labour Market: Implications of Human Capital Research" published in the Journal of International Migration and Integration. Reitz analyzes earnings and income data from the 1996 census to demonstrate that immigrants receive smaller earnings premiums for formal education and work experience relative to native-born Canadians. Overall, Reitz suggests that, if immigrants received full compensation for their education and work experience, their annual earnings (based on 1996 data) would be fully 20% higher than they actually are.



On this basis, Reitz concludes that immigrant skills are not only under-valued (and thus wasted), but far from compensate for the significant losses in human capital which result from foreign competition for skilled workers.

As Reitz points out, measurement problems are a major obstacle. Where employers must choose between Canadian and foreign-trained applicants, "the practice of discounting foreign qualifications may be seen as an effort to reduce risk" — risk which directly results from the lack of metrics to evaluate the quality and/or relevance of overseas credentials.

Reitz and others suggest that one of the best ways to overcome such obstacles is to devise a more effective "mutual orientation" for immigrants and prospective employers. In the normal course of events employers spend a good deal on the recruitment and orientation of new employees in any case. Accordingly, Reitz suggests that remedial educational institutions, professional associations and federal immigration authorities could also contribute to such an orientation process. In so doing, he concludes that "helping Canadian employers deal with the very practical problems of using the new global workforce could be a low-cost way of improving returns from our investment in immigration."

The "integration gap" will have a long-term impact on Canada's immigration as a whole. Intensity of global competition to attract Highly Qualified Professionals especially in the UK, Australia, Japan, Germany and USA will put additional pressure on Canada. A new and innovative approach is required if Canada wants to attract the best the brightest but also to utilize its pool of its valuable resources.

Canada's new measures to address this are untested and under fire from opponents. Given past attempts at immigration reform along these lines, there is no good reason to assume they will have any significant impact.

THE VITESSE PERSPECTIVE

Vitesse experience in the high technology sector has shown it to be a very complex environment where traditional methods for training and development are not always the most appropriate or effective in responding to the skill needs. The skills crisis requires innovative measures and models on a national scale. As confirmed in a recent Throne Speech, our challenge is to embrace change proactively and invest in the career potential of Canadians. To address skill shortages in a timely fashion, we need to use the existing resource in Canada's universities to educate and train students and existing employees with the skills and knowledge that will prepare them for careers in industry. Difficult as it is, the universities need to be more agile in program development and they need to maximize the use of available resources strategically.

Vitesse's experience is entirely consistent with the findings reported by Achieving Excellence and Knowledge Matters. It is also supportive of the conclusion reached by Dr. Reitz and others on the need for training programs which provide "mutual orientation" for both employers and immigrants seeking to re-establish themselves in the labour market through the acquisition of new skills.

Based on our experience in providing both training in specific skills and in developing programs aimed at making immigrants workplace-ready, we believe moreover that all the elements needed to deal with the skills challenge already exist.

Our experience leads to several conclusions.

a) *First, we have found that both the raw knowledge and technological know-how needed to sustain the new economy already exist within Canada's research and academic institutions. While Canada can certainly benefit from increased levels of R&D and from an infusion of new talent into many university faculties, we can achieve a great deal more with what we already have.*

b) *Second, while population growth may be slowing, we should not discount the fact that we have a large and well-educated workforce capable of absorbing new skills and revitalizing its existing knowledge base. In the short term, at least, we can respond to many skill requirements with appropriate "re-skilling" and programs aimed at refreshing and upgrading existing technical skills.*

c) Third, we have a large and growing inflow of skilled immigrants whose skills are not being fully utilized. In many cases, immigrants need "up-skilling" and "re-skilling" and some degree of "cultural reconditioning"— or so-called soft skills — to meet current industry needs.

d) Our research indicates that employers' reservations about recruiting immigrants are based in part on their lack of familiarity with Canadian business custom and management style. Training in such areas as oral and written business communication, presentation and interviewing skills, workplace practices, teamwork and self-management techniques are seen by industry recruiters as important prerequisites to employment.

e) Both types of training, in soft as well as technical skills, can be delivered relatively inexpensively and in a much shorter time frame than most traditional institutions presently assume.

f) In providing a number of training vehicles to the high-tech sector, Vitesse's experience has been that the environment is both complex and dynamic. Traditional methods of training and development are not always effective or appropriate in the fast-paced new economy. Accordingly, Vitesse has consciously focused from the outset on the development of innovative training models and methodologies which are both responsive to individual needs and employer requirements.

g) In so doing, we believe that the Vitesse approach provides the template for a national re-skilling program.

The Vitesse Re-Skilling Model

The Vitesse Re-Skilling Model is an innovative model that involves the development of a 'just-in-time' curriculum to meet industry specific skills requirements while taking into account each and every individual's background and qualifications.

The trademarked Re-Skilling Model allows for optimum utilization of our existing educational resources across different universities and colleges and provides a regional and local solution to the skills needs of any particular technology or industry cluster.

The model provides the necessary skills within a time-frame that is shorter than one year while at the same time providing candidates with the necessary academic course credits that can allow them to enter a full degree or diploma program if and when such a program is created.

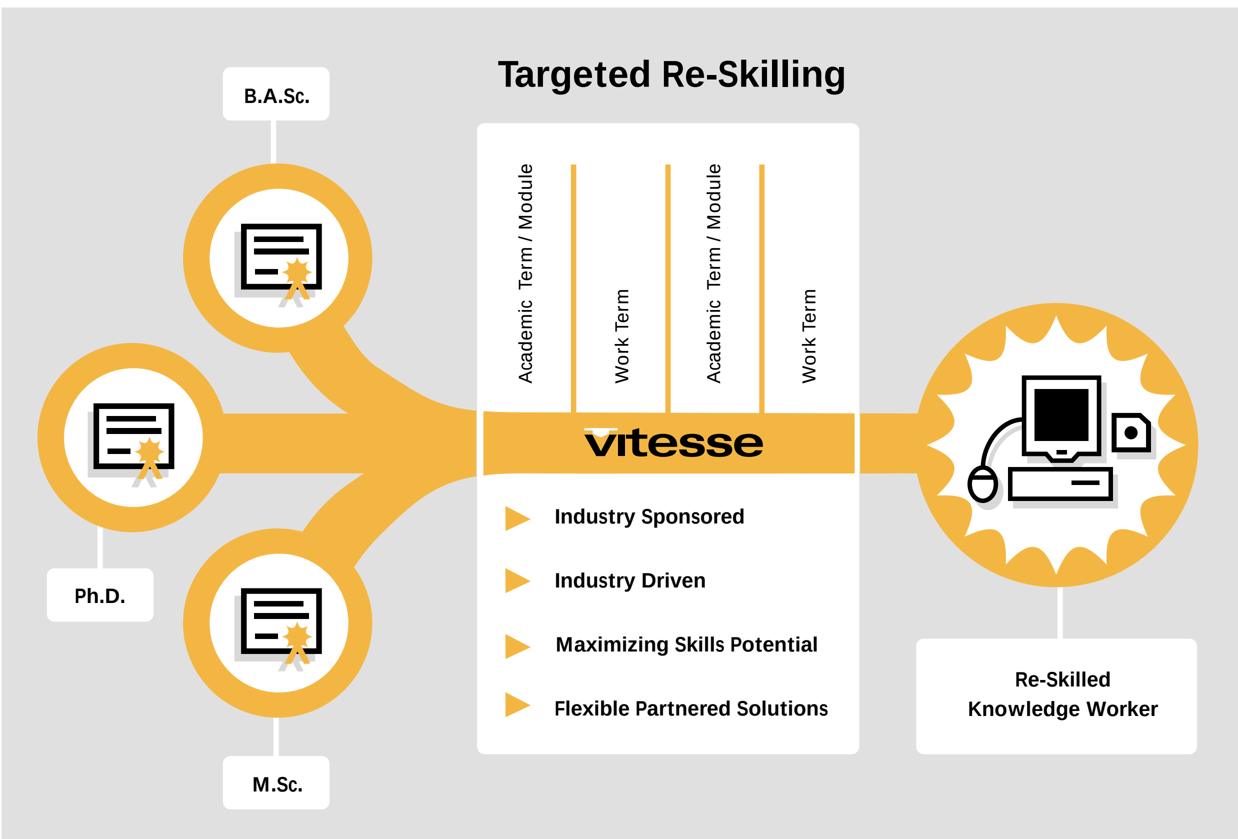
The Vitesse Model focuses on skills rather than academic degrees or diplomas and ensures that those that already possess degrees or diplomas have an opportunity to transition into the new economy and then into new and emerging areas. In the knowledge-based economy, new skills will be required on an on going basis.

Canada has one of the highest rates of educated work-force. This statistic, however, does not distinguish the skills requirements in Canada's traditional sector and those in the new economy. The Vitesse Model allows for re-skilling of Canada's existing workforce for the changing requirements of the new economy.

As the Model's primary objective is providing new skills, the model allows for faster integration of highly qualified immigrants by providing both the soft skills necessary and new technical skills relevant to the Canadian industry. Since there is usually a time gap between filing of an immigration application and the ultimate migration, the Vitesse Model ensures that new immigrants will be able to acquire the necessary and current skills required by industry.

In essence, the Vitesse Re-Skilling Model fills a vacuum that exists between the time a new need has been established and the time it takes for Canada's educational institutions to determine that this is a long term need and to respond to it through the development of a new degree or diploma program. The Model provides an industry focus and establishes industry relevant curriculum and delivers it through a mechanism appropriate to industry.

The Vitesse Re-Skilling Model cuts across various degree and diploma programs in a university or college and across various universities in Canada. As such, it is able to meet the varying cross-disciplinary requirements faster and in a manner that takes into account each company's requirements and each individual's background.
The Vitesse Re-Skilling Model is essentially a bridge as depicted below.



Benefits of Vitesse Model

a) The Vitesse program and its approach to the skills development challenge have a number of benefits, all of which represent a "win-win" situation for all who are involved.

b) For Canada, of course, Vitesse methodologies offer an enormously flexible and relatively inexpensive solution to current skills shortages and a model for long-term training and skills development.

c) For sponsoring firms, the most important benefit is that they are all able to acquire a customized solution to critical skills requirements on a fast-track basis. Because the training is closely monitored by the firm itself as well as by Vitesse and its academic partners, quality assurance is built into the program from end-to-end. Given the close relationship between candidates and sponsors throughout the training process, it is highly likely that retention rates will be improved and turnover reduced. Firms who have consistently participated in Vitesse programs, report a high level of satisfaction with the quality of program graduates.

d) For Vitesse's academic partners, the benefits are no less significant. As well as generating revenues for the institution and participating instructors, involvement in the Vitesse program enables both institutions and individual professors to forge a relationship with high-tech industry. At the same time, Vitesse offers them a test-bed for the development of mainstream curricula and enables them to address industry needs without investing in new infrastructure. The end result is to enhance the responsiveness of the learning system to critical social and economic needs.

e) The most obvious beneficiaries of Vitesse's program are the students themselves. In applying their existing training and experience to the acquisition of new and current skills, they assure themselves of new career opportunities in industries that are on the cutting edge of the knowledge-based economy.

f) Of all participants, foreign-trained immigrants are most likely to benefit from the Vitesse experience. Since an important part of the Vitesse Triad™ process is that previous education is reviewed and scrutinized by academic advisors, problems with credential recognition are virtually eliminated.

g) At the same time, Vitesse programs eliminate another typical hurdle faced by foreign-trained professionals — the lack of Canadian experience. Because at the outset of the program, there is a match between the individual candidate and the sponsoring firm, employers are able to determine the suitability of the candidate throughout the selection, training and evaluation process. Although there is no obligation on the part of sponsors to hire graduates on a permanent basis, there has been a 100% take-up rate by sponsoring firms to date. Vitesse programs also address the problem of Canadian cultural orientation for immigrants through its soft skills training modules.

h) Finally, of course, Vitesse is responding to the need for soft skills and orientation to the Canadian workplace. Though programs in this area are not designed to lead directly to full-time employment, they do enhance the employability of foreign-trained professionals and help prepare them for potential participation in Vitesse's mainstream programs.

What is re-skilling?

a) *A strategic investment to ensure a consistent source of skills that meets changing organizational and industry needs.*

b) *A commitment to continuous learning that meets the education requirements of a diverse workforce.*

c) *An individualized process that matches the backgrounds of professionals with organizational needs.*

d) *An important tool for recruiting and retraining high quality staff.*

e) *A balance between meeting the skill needs of today with the competency demands of the future.*

f) *A market-driven education.*

Types of re-skilling

a) *Quantitative re-skilling—addresses a shortage in the number of people with particular occupational skills, e.g., shortage of the numbers of professionals in software engineering. It applies to unemployed or underemployed foreign-trained professionals and Canadian graduates.*

b) *Qualitative re-skilling — addresses a shortage in the skill set of the people who work or are looking for work in a specific occupational group, e.g., shortage of project management skills in existing employees; soft skills among foreign-trained professionals. It applies to professionals employed in an earlier technology cycle who currently lack the new skills demanded by their employers.*

g) *Vitesse has been providing innovative skills development programs for Canada's high-tech industry since 1996 and was established in direct response to critical personnel shortages in the Ottawa region's growing high-tech sector. An independent, not-for-profit organization, Vitesse is the product of a partnership between the National Research Council of Canada, Carleton University and the University of Ottawa. Vitesse is now planning to expand its programs across the province and across the country.*

h) *Programs range from seminars and short courses to intensive 12-16 month cooperative courses depending on the skills required by sponsoring employers and the educational background and experience of participants.*

i) The approach taken by Vitesse Canada is to redefine what are currently seen as training needs, to "organizational learning" needs. As a composite retraining model, piloted in the high-tech sector but equally applicable to others, the Vitesse re-skilling solution is poised to become an industry-driven national training template. The Vitesse approach, which has been a successfully tried method for systematic educational planning and strategic development of employees, is built on some fundamental principles:

- *Cooperation and collaboration – the establishment of a dialogue among participating companies, educational institutions, and prospective professionals.*
- *Link to the university and college system in Canada – facilitation by Vitesse program directors, whose role is to facilitate this partnership between companies and training institutions.*
- *Flexible application — the flexible adaptation of training and development so that companies can set up their own specific goals with the Vitesse process — and subsequently choose which prospective employees, tools and modules are applicable to their own situation.*

j) The Vitesse Re-Skilling Model is based on the philosophy that every single Vitesse project should be adapted to the actual needs and preferences of the individual participating company. Therefore, flexibility is a key characteristic of every Vitesse project. The Vitesse philosophy of strategic alliances with industry and educational providers ensures that programs focus on equipping students to apply their knowledge ingeniously to the solution of problems in the workplace. The practical relevance and flexibility of the programs is guaranteed through regular documented consultation with workplace and educational partners.

k) The Vitesse Model is based on an existing menu of course offerings provided by a variety of educational institutions with unique expertise in specific disciplines of interest to industry. Sponsoring firms can select courses from the menu to develop a program which is tailored both to their specific needs and the capabilities of selected candidates. Courses may be either classroom-oriented or self-study and each academic semester typically requires completion of five courses. Academic semesters alternate with work terms until training is completed.

l) During pre-program screening, candidates are matched with a sponsoring company. Sponsors cover both the costs of tuition and work-term salaries. During the work terms, students are assigned to a training-related project, which provides valuable hands-on experience.

m) Students are assigned an in-house mentor from their sponsor company and an academic advisor. Together they identify key skills requirements and monitor student performance on the job and in the classroom.

n) Vitesse's role is to identify industry requirements, bring together all the key partners, and manage the overall process. Once a program is designed, Vitesse manages the recruitment phase of the process. Applicants are pre-screened by Vitesse's staff on the basis of pre-determined eligibility requirements. Final selection is made on the basis of a personal interview with the sponsor company.

o) The academic advisor and company mentor then participate in a skills assessment and an individualized study plan is formulated. If the sponsor's requirements change during training, the process is flexible enough to accommodate modifications in the training curriculum.

p) The advantage of this "just-in-time" approach (which we term the Vitesse Triad) allows Vitesse's programs to respond very quickly to evolving industry needs, while at the same time ensuring that the student is equipped with leading-edge skills which are genuinely in demand.

Evidence of Success – Current Vitesse Programs

Vitesse Software Engineering Program

a) Vitesse's flagship offering is the Vitesse Software Engineering Program, a fast-track cooperative program designed to provide high-level IT skills to under- or unemployed science and engineering professionals in the Ottawa region. The program draws teaching resources from partnering institutions and is customized to suit the needs of individual employer sponsors. Courses are selected from the calendars of Carleton University and the University of Ottawa.

b) Candidates are screened and selected by Vitesse and placed either in a 16-month program which alternates between the university classroom and industry work term placements or an accelerated 12-month version.

c) Employer sponsors cover both the tuition fees and work term salaries for successful applicants and in addition provide a company mentor. In conjunction with a faculty advisor, the mentor's role is to ensure that students can immediately apply their newly-acquired skills during work-term assignments and in subsequent full-time employment.

d) Currently in a 7th phase of operation, the program has attracted more than 1400 applicants, of whom approximately 80% are foreign-trained scientists and engineers. To date, the program has successfully trained and placed 100 people in IT and telecommunications firms in the Ottawa region.

e) *The Vitesse Re-Skilling™ Model, established through the University Software Engineering Program, proved to be a very successful method of rapidly providing re-skilled workers to high-tech companies. This model was answering primarily the growing needs of the industry for more skilled workers. In other words, it is a solution for quantitative skill shortages.*

Photonics Program

f) *The rapidly emerging science of photonics encompasses physics, materials sciences, electronics, chemistry and optics. Employed primarily in the telecommunications field, photonics technology can also be used in imaging, environmental monitoring and biomedical applications.*

g) *Vitesse's Photonics Program pioneered another successful re-skilling model — addressing the qualitative skills shortages of the Photonics industry. There is a great similarity between Vitesse's Software Engineering re-skilling model and the Photonics one. In both cases, existing academic resources are used to provide the required skills. Industry participation is a key component of the model and re-skilled professionals provide an enriched environment in their organizations.*

h) *Development of the Vitesse photonics initiative was again in direct response to requests from Vitesse's educational partners and recommendations by the Ottawa Economic Generator Study to sharpen the competitiveness of what is rapidly emerging as a major growth opportunity for Canada.*

i) *Given the dynamic and multi-faceted nature of the discipline, however, Vitesse quickly recognized that a "one-size-fits-all" solution was inappropriate and instead set out to create a series of opportunities tailored to specific industry needs.*

j) *In so doing, Vitesse faced a number of challenges which were not a factor in the Software Engineering Program. For example, Vitesse's research confirmed that academic resources in the photonics area were virtually non-existent in the Ottawa area and, since industry needs were urgent, a 12-16 month academic engagement was impractical.*

k) *Accordingly, a major search was launched to identify an international network of top-ranking university professors with the expertise needed to deliver the courses in the proposed Vitesse photonics curriculum. In response to industry requirements for a speedy solution, a series of condensed training modules was developed that matched employer content requirements and time lines.*

l) *The Program features an intensive week-long introduction to photonics and laser technology, with shorter multi-day programs in telecommunications systems. Specialized seminars provide more intensive instruction on specific subjects or areas in which sponsoring employers have a unique requirement. Where larger companies have the critical mass to support it, course modules are offered in-house.*

m) *This program has become an important element of re-skilling for electrical engineers and physicists in companies. Launched in 2001, the Photonics Program has already provided training to some 200 professionals.*

Vitesse Bridging Program for Foreign-Trained Biotech Professionals

a) This program has been funded by the Ontario Ministry of Training, Colleges and Universities, and is currently being developed by Vitesse in close cooperation with the interested stakeholders – universities, industry and professionals.

b) The program is targeting to re-skill, over three years, 170 foreign-trained biotech professionals for the Ontario biotech industry, without duplicating their existing education and experience. The program will address challenges facing foreign-trained professionals, namely, non-recognition of academic credentials, lack of Canadian experience, and soft skills gaps.

c) The program features a modular approach to bridging the skills gaps of foreign-trained immigrants who come from a number of countries each with its unique set of academic programs and work experiences. The program provides for language and workplace skills modules scaled to meet the different requirements for each individual. It also features modules that allow for refresher courses as well as re-skilling to meet the Canadian company requirements in the diverse field of biotechnology.

d) The program is unique in its design providing the maximum flexibility with the end objective of ensuring that each individual is able to acquire necessary skills that would enhance their ability to work effectively in the Canadian workplace at the same level as a Canadian trained professional.

Vitesse Bioprocessing Program

a) This program was originally designed to ensure that the investment by DSM Biologics in Montreal will not suffer from any shortage of skilled professionals trained in bioprocessing.

b) The Vitesse approach was able to demonstrate that qualified biotechnology professionals trained with specializations in various areas of biotechnology could easily be re-skilled to meet the human resource requirements of a new investment.

c) The Program is being developed in collaboration with McGill University and the National Research Council with the support of Industry Canada and will draw from expertise in Quebec and Ontario.

Canadian Workplace Practices

a) *To address the needs of technically qualified immigrants who do not have the "soft skills" capabilities required for admission to other Vitesse programs, this program provides a general orientation to Canadian workplace custom and practice. The workshop covers such topics as workplace responsibilities, values and norms, ESL strategies, working relationships with peers and managers, and maintaining skills currency.*

b) *Using a self-assessment process, candidates register only for those program modules where they determine there are critical skills gaps.*

c) *The two-day workshop was piloted with a group of 20 foreign-trained professionals in August 2001 and has been well received by employers and students.*

Vitesse is developing new programs in Digital Integrated Circuit Design, Water Resources Management, Wireless Technologies, Bioinformatics and Nanotechnology. All of these programs are aimed at meeting the various skills needs of specific industry sectors across the country.

Vitesse Success Story

- *300 science and engineering graduates re-skilled to software engineering and photonics to date. The employment success rate for those that have completed the program has been 100%.*
- *Received the Chrysler Award from the Conference Board of Canada for the best initiative to meet the skills needs in partnership with educational institutions and industry*
- *Received the SCOAP Award for best initiative to meet the IT skills needs of significant benefit to the community by helping change careers and meeting the new needs for high-tech companies*
- *Recognized by the Regional Municipality of Ottawa-Carleton as the most appropriate model to meet the skills needs of the technology clusters in Ottawa*
- *Received Ontario Government's Strategic Skills Initiative funding for expansion of the Vitesse Software Engineering and Photonics programs across Ontario.*

LOOKING FORWARD

This paper has outlined the key issues facing Canada and makes the following key points:

a) *It is increasingly clear that investment in workplace training and the refreshment of technical skills must increase if Canadian industry is to remain competitive. This is particularly true for emerging knowledge sectors—informatics, biotechnology including genomics and bioinformatics, nanotechnology and photonics for example – which offer the greatest promise for a new round of economic activity.*

b) *In contrast to many of our trading partners and competitors, Canada spends very little on workplace retraining. Only 31% of Canadian firms participate in such programs, compared for example with 75% in Japan and 80% in the UK.*

c) *As Vitesse has demonstrated, the investment need not be great. Most of the elements needed to ensure that future skills requirements are met are already in place. Nor is there a need to invest in costly new training infrastructure and facilities. What are required are more innovative delivery systems for the knowledge and know-how already present within our existing educational institutions.*

d) *Vitesse has demonstrated that such mechanisms do exist and that the programs we have developed can serve as the pilot for a broad-based national program capable of responding to skills gaps in every sector of the economy. Our re-skilling methodology has already proven itself in several critical applications and we believe it can be readily applied in virtually any industry for any skills set.*

e) Nor do skills development programs like those of Vitesse need to be encumbered by questions of jurisdiction. Because it is a collaborative approach involving a wide range of public and private sector partners on the basis of clearly defined goals and objectives, the Vitesse Model can be applied at a national, provincial or regional level.

f) With appropriate support and funding from appropriate agencies, the Vitesse Re-Skilling Model is an important component in Canada's efforts to build a globally competitive workforce.

In conclusion, we are proposing some concrete solutions for action by all concerned to address the critical skills issue outlined in the two government papers. The options presented are for discussion and possible implementation.

There are several possible approaches to expanding the Vitesse Re-Skilling Program to meet Canada's Skills Targets. These options are as follows:

OPTION 1:
Implementation of Vitesse National Re-Skilling Initiative

First Thrust – Vitesse Re-Skilling Canada Inc. as an organization overseeing re-skilling

Under this option, the Government of Canada would approve the Vitesse National Re-Skilling Initiative (V-NRI) as the National Policy framework for national support of re-skilling over the next five years 2002-2007, and commit funding to fully implement the first five years of the V-NRI.

Advantages:

- *The V-NRI will be established as the framework for federal support of re-skilling over the next decade and set a firm context for planning, budgeting and accountability.*
- *The proposed V-NRI will enable the participating educational institutions to get directly involved with leading knowledge-based companies and to understand their specific needs.*
- *All regions of Canada will benefit from the implementation of the Vitesse -NRI, particularly Ontario, Quebec and British Columbia, where the concentration of universities, leading-edge industries and highly skilled immigrants is the highest in the country.*
- *The Government can reasonably expect a significant economic return on its investment.*
- *It is expected that during this period, 7,500 Highly Qualified Professionals (HQP) would be re-skilled. Measuring only the tax revenue to the local municipalities by the newly employed HQP it is expected that the return on the investment would be $ 675 million.*

The Vitesse National Re-Skilling Initiative will help to develop the skills needed for the new knowledge-based economy and prepare all Canadians to fully participate in our vibrant and successful multicultural society.

OPTION 2:
Implementation of the V-NRI

Second Thrust – Establishment of a National Re-skilling Agency

Under this option, the Government of Canada would approve the Vitesse National Re-Skilling Initiative as the National Policy framework for national support of re-skilling over the next five years 2002-2007.

Under this option, the Government of Canada would approve the creation of a Vitesse National Re-Skilling Agency based on the success of the Vitesse Re-Skilling Model.

Government of Canada would commit funding to creation of the Vitesse National Re-skilling Agency and its operations in first five years.

Advantages:

- *The creation of a Vitesse National Re-skilling Agency will help to attract, produce and retain HQP in meeting the goals outlined in the Canada Innovation Strategy, to develop the most skilled and talented labour force in the world.*
- *The National Re-skilling Agency will be responsible for the design and the delivery of a national re-skilling strategy with the close support of the federal, provincial and territorial governments, education institutions, research centers and small and large businesses where 12,500 HQP will be re-skilled over a five year period.*

- *To meet these objectives the creation of a Vitesse National Re-skilling Agency will require program development, staffing and infrastructure. Three branches of the National re-skilling Agency will be operating in Metro-Toronto, Montreal and Vancouver. However the return on this investment would be massive.*

Over a five year period the expected return on Investment (ROI) in terms of tax revenue of the re-skilled and employed 12,500 HQP is estimated to be $ 1,125 million.

OPTION 3:
Implementation of the V-NRI

Third Thrust – Re-skilling as Part of a New Immigration Framework

Under this option, the Government of Canada would approve a National re-skilling policy overseas in a collective effort with the Department of Immigration and Citizenship, the Department of Foreign Affairs and International Trade, in collaboration with leading Canadian academic institutions, to modernize the Canadian immigration system, one of the key priorities outlined in Canada's Innovation strategy.

Training in such areas as oral and written communication, presentation and interviewing skills, workplace practices, teamwork, self-management techniques and Canadian workplace practices are seen as important prerequisites to successful employment.

By having access to a tailored labour market information and job search techniques before their arrival, immigrants will better understand the Canadian labour market and thus integrate more quickly and effectively into the labour market.

Under this option, the Government of Canada would commit funding to the creation of the National Re-skilling policy overseas.

Advantages:

- *This program will help the highly skilled immigrants to achieve their full potential in the Canadian society and labour market in preparing them to work efficiently in the North-American market context.*
- *This program is a direct response to meet national goals outlined in Canada's Innovation Strategy to ensure that highly skilled immigrants achieve their full potential in Canadian society and the labour market and to reduce by 50 percent the income gap between immigrants in the work force and Canadian-born workers with comparable skills and education.*
- *It is known that in many cases, immigrants need up-skilling and re-skilling and to some degree cultural reconditioning – or so-called soft skills. Lack of familiarity with Canadian business customs, ethics and management style is a serious obstacle to integration into the North-American corporate culture. This challenge would be undoubtedly reduced after successful completion of the training courses delivered overseas.*
- *This program will greatly facilitate highly qualified immigrants from around the world and ensure their successful integration into the Canadian economy and society.*

It is expected that the number of re-skilled and up-skilled HQP will reach 17,500 which would be translated into a return on Investment (ROI) of $ 1,575 million.

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ANNEX A: RE-SKILLING A NATIONAL PRIORITY — COMMUNICATIONG A STRATEGY

To promote national confidence in Canada's future and help brand Canada as one of the most innovative nations in knowledge based economy.

To provide Canadians in all regions with an opportunity to contribute to and benefit from the new knowledge-based economy.

In addition to the strong association with the strategy to brand Canada internationally as a leader attracting the most skilled and talented immigrants, the decision on the Vitesse National Plan will have a direct impact on the credibility of the 2001 Speech from the Throne commitment to invest aggressively in the literacy skills and talents of Canadians.

The Government is acting forcefully and confidently to fulfill its commitment to develop the most talented and competitive labour force in the world.

The Government of Canada has outlined its strategic goals:

- *Develop the most skilled and talented labour force in the world.*
- *Ensure that Canada receives the skilled immigrants it needs and helps immigrants in need to achieve their full potential in the Canadian labour market and society.*

Specific milestones to ensure progress towards these goals include:

- *by 2010, 65 percent (up from 58 percent in 2000) of adult immigrants have post-secondary education; and*
- *the income gap between immigrants in the work-force and Canadian-born workers with comparable skills and education is reduced by 50 percent.*

In addition, one of the strategic priorities of the Government of Canada is to brand Canada as a destination of choice for skilled immigrants.

Canada's Innovation Strategy:

Achieving Excellence: to remain competitive and to keep up with the accelerating pace of technological change, Canada must continuously renew and upgrade the skills of its work force. We must provide opportunities for workers to improve and upgrade their skills and acquire new ones to meet the changing skills demands of the new economy.

In this international and domestic context, the implementation of the successful Vitesse National Plan is a very important step into the right direction in meeting the Government goals of developing the most skilled and talented labour force in the world and helping the highly skilled immigrants to achieve their full potential in the Canadian society.

In the December 2001 Budget Plan it was outlined that:

The Government of Canada has long recognized the value of investing in people – in literacy and in the education system, which provides advanced skills and individual economic security, in ***on the job-training, which supports job-specific skills,*** *and in universities and other centers of advanced research, where the ideas and instructors of the future are found.*

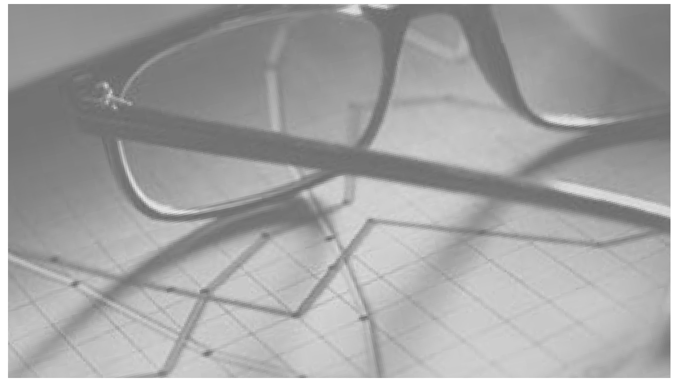
This is why the general public and mass media reaction is expected to be strongly supportive to the implementation of the Vitesse National Program.

The decision to implement the Vitesse National Program will be publicly praised by leaders of the academic and business community, as well as by presidents of leading research university as well as senior figures in key sectors of the knowledge-based economy.

The announcement of the Vitesse National Plan will be made at a news conference in Ottawa by the dean of the University of Ottawa, in the presence of leading figures from different sectors of cutting-edge economy in Canada.

Ongoing communications activities and programs will support the five-year implementation plan.

It is evident that only an all-inclusive national effort could achieve a truly world-class innovation environment. This is why the Government of Canada made a commitment to work with provinces, territories and other partners to ensure that all Canadians can achieve their skills and their learning goals.



There is a huge interest in strategies to enhance job-specific skills for the new knowledge-based economy. The Governments of Quebec, Alberta and New Brunswick have recently released papers highlighting skills and learning issues in their respective provinces.

The Vitesse National Program has not only shown a 100% success rate so far, but is also suitable to respond to the need for a broad-based accessible and comprehensive learning and re-skilling program, combining the efforts by post-secondary institutions, universities and colleges and also on the efforts of employers and the business community.

All regions of Canada will benefit from the implementation of the Vitesse National Plan, particularly Ontario, Quebec and British Columbia, where the concentration of universities, leading-edge industries and highly skilled immigrants is the highest in the country.

The Vitesse National Program will help to develop the skills needed for the new knowledge-based economy and prepare all Canadians to fully participate in our vibrant and successful multicultural society.

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Re-Skilling The Knowledge Worker

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