



**Canadian
Manufacturers &
Exporters**

**Manufacturiers et
Exportateurs du
Canada**

Innovating the Future through Skills

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President and CEO
Canadian Manufacturers & Exporters**

**SAIT's Manufacturers Bursary Luncheon,
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Thanks very much for this invitation to address SAIT's Manufacturers Bursary Luncheon. I'm particularly pleased to be invited to be here because the institute is such a key contributor to meeting skills needs in Canada. And you should also know that SAIT's contribution goes well beyond our borders. The college is one of the finalists for the 12th annual Canadian Awards for International Co-operation for establishing SAIT – Kazakhstan. The winners of the awards will be announced in a special ceremony during International Development Days here in Calgary on April 22.

Albertans, and Alberta colleges in particular, appreciate the importance of skill development, and of having the right skills available at the right time.

CME members tell me that of all the education and training programs they use, they are particularly satisfied with those provided by Colleges. They rank College programs with their own internal training programs and university graduate programs as being the most effective in meeting their needs. Significantly – and somewhat

worryingly -- they also rank high school programs as the least effective in meeting their skill needs. But more on that, later.

I'd like to set my remarks today against the broad backdrop of skills shortage issues that Canada is increasingly facing. This issue has been well researched. I won't bore you with the numbers, but I think you all know something about the demographic forces that are driving the skills issue today in Canada, namely:

- Much slower labour force growth (projected at under 1% per year for the rest of this decade)
- An older work force (about one-third are now over 45 years old)
- Increasing retirements (the average age of retirement is now 61 and has been declining for over 20 years)
- Fewer new young labour force entrants.

Trends like these make skills shortages a question of national significance, even urgency. It's a story I hear whenever I visit with CME members across Canada. And CME's annual Management

Issues Survey, in which we ask manufacturers throughout the country for their perspectives on a wide range of questions, confirms it.

- For example, in our 2003-4 Survey, CME members told us that lack of qualified personnel was one of the top three constraints on performance improvement.
- They also told us that when it comes to locating production facilities, they of course look first at costs, together with proximity to markets and suppliers, and the tax environment. Right after that, however, it's access to skilled labour. This factor was in the top five among things they looked for in a location.

So skills make a difference at the local level.

At the same time as we discuss skill shortages, however, we also increasingly hear of what I'll call 'opportunity shortages'. That is, we read increasingly of jobs, including both manufacturing and increasingly service jobs, being lost from Canada and the US to

lower-cost countries such as India or China. These countries' skill levels and technical and professional education are rapidly increasing. Coupled with their extremely low wages, they are increasingly able to compete on a purely cost basis with companies in more developed countries.

A front page article in the April 2 issue of The Wall Street Journal looked at how globalisation and the progress of technology would affect jobs in the future. Its conclusion was this:

Jobs that can be reduced to a series of rules are likely to go -- either to workers abroad or to computers. The jobs that stay in the U.S. or that are newly created in the decade ahead are likely to demand the more complex skill of recognizing patterns or require human contact.

In the US, in fact, we are beginning to read that fewer students are entering the fields such as computer technology and engineering where jobs are at greatest risk of being sourced off shore. This is a worrying development; will Canada be next?

This also poses countries like Canada with a critical problem that can only intensify. How can we keep economic activity and jobs in

Canada in a way that permits continuing growth and an enhanced standard of living?

The answer, I suggest, revolves around our ability to innovate as a nation, our ability to make the necessary investments in infrastructure, and our capacity to underwrite that innovation with advancing skill levels that can help to keep us ahead of the competition from low-cost countries. Skills, then, also make a difference in a global context.

As President of CME, I feel this particularly strongly in the case of manufacturing, but recognize that it is not just a manufacturing issue. Furthermore, it is an issue that highlights our particular Canadian challenges as a country with many small and medium-sized businesses – SMEs – which often do not have the capital to invest in infrastructure or skills.

On both global and local fronts, then, we must pay attention to the skills we need and are able to provide. SAIT and its partner institutions play a crucial role in this regard.

This means that we must ensure that our new graduates – the ones who come out of institutions like SAIT – have the best and most relevant skills that we can give them. The quality and content of college curricula must be as pertinent as possible to our skill requirements.

But what skills are we talking about? Again, let me go back the CME's Management Issues Survey. In it, CME members told us that they had the greatest difficulty finding and keeping expertise in management, engineering, marketing, and business development. Note that apart from engineering, these are all relatively 'non-technical' fields. Skills in IT, software, and a number of other technical areas ranked towards the bottom of the list of hard-to-find skill sets.

Similarly, when we asked what skills were most in need of improvement, technical skills ranked sixth out of eleven, after 'softer' skills such as problem solving, communication, teamwork, and interpersonal skills. These latter skills are now being labeled, I

understand, as “Essential Skills”, that is, broader skill sets that constitute a basic platform on which more technical skills can be built.

I cite these points because I think it's very important to recognize the great breadth of skills to which we must all pay attention, in our own spheres. Employers will look for these 'essential' skills in addition to more technical ones when they hire and promote. Educators must continue to be aware of the value employers place on a 'rounded' graduate, with a full arsenal of these skills in his or her portfolio.

This is where our members' relative dissatisfaction with the graduates of our high schools is worrying. I'm not an education expert, and should be corrected if I'm off base, but it seems to me that the grounding for many of these important 'essential' skills takes place in high school. Is it these skills that our members say they're not seeing in these graduates? If so, we clearly have to explore this issue further and raise our concerns more vocally.

I am the Business Co-Chair of the Canadian Labour and Business Centre. Ken Georgetti, President of the CLC, is the Labour Co-chair.

Through the CLBC, I frequently have the opportunity to talk with Ken and our other Board colleagues from business, labour, governments, and the academic community. I, for one, appreciate these exchanges, and regard them as a major benefit of my CLBC membership. I note that Mel Svendsen, the current Chair of the Alberta Division of CME, is a past member of the CLBC Board of Directors, and likely can relate to the benefits of these discussions.

While labour and business will differ on a number of issues, we both share a serious concern over skills issues in general, and, the quality of preparation of our new labour force members, in particular.

Some business members of the CLBC Board, in our discussions, have pointed to a lack of adequate essential skills among would-be apprentices. These individuals, in many cases, don't have the levels of literacy, numeracy, or critical thinking to make it through a challenging four or five-year apprenticeship program. Many of our labour Board members agree fully with this view.

The CLBC conducts an active program of research on all aspects of the broad skills issue. In 2002, the Centre's biennial survey of business and labour leaders found that skill shortages were among the top five concerns of the business community, and among the top ten within the labour community, out of a list of about 40 issues – high rankings, both.

In recent months, the CLBC has begun to turn its attention more to looking at these 'essential' skills and at what is required in this regard. One of its concerns is that while Canada's labour force is getting older and increasingly likely to retire over the next 5 or 10 years, there remain many workers who may have another 10-15 years left in their career, whose essential skills are perhaps not sufficient to support the additional skill sets they will need to do their jobs.

This is where the requirement I mentioned earlier, that we as a nation become much better innovators, touches skills again. As production processes become more complex as a result of product and process innovation, some workers will be unable to keep pace with the enhanced skills required unless we can find a way to effectively

address their needs. If not, our skill shortage problems, which are forecast to be significant enough, will be even more so. Innovation, in short, must be supported not just by the 'high-end' engineering and research skills, but also by enhanced skill sets at all levels.

Employers, in partnership with colleges and other institutions, may find that they have to make further strategic investments in their workers' skills – including the essential skills I talked about earlier – to accommodate these new innovations. It is encouraging that our CME members tell us that improving employee skill sets is their main focus, with two out of every three companies planning to make this a key investment in 2004.

Our firms will also have to address issues of recruitment, retention, and knowledge transfer much more systematically than in the past, to find and keep the skills they will need going forward. This will likely include such varied dimensions as workplace health and wellness, which many enlightened employers already regard as a strategic advantage in making them 'employers of choice' in the competition for skills.

So, allow me to draw together some threads from my remarks thus far:

Increasingly, Canadian companies will have to rely on innovation to stay ahead in the global prosperity race. But companies cannot innovate if their employees cannot innovate, so all business sectors must be able to adapt quickly to emerging challenges. Industrial workers today need diverse technical and 'essential' analytical and communication skills. Those skills are developed in high school, fine tuned in colleges and during apprenticeships, and enhanced through challenging and skill demanding jobs in the workplace.

Canadian manufacturers, especially SMEs, are also more labour-intensive than their American counterparts, creating further demands on a pool of skilled labour that is already shrinking as a result of demographics. They have tended to boost production by employing more people, rather than by introducing new labour-saving technologies, compared with the trend in the United States. This heavier reliance of Canadian industry on labour rather than on

automation has led to two very different patterns in productivity performance.

The result can be seen in Canadian and U.S. trends in labour productivity. Labour productivity increased more rapidly in Canada between 1989 and 1994, then the rate of performance slowed dramatically. Meanwhile, the rate of labour productivity improvement has remained the same in the United States throughout most of the past decade. It surpassed the Canadian trend in 1996 and began to open up a gap that has caused great concern for business people and policy makers on this side of the border.

These trends point to the need to act in several key areas.

First, unless investment in productive capital increases significantly across Canadian industry, the differences in productivity, economic and income growth will continue to widen. We need a considerably enhanced investment environment in Canada to make that happen.

Second, we need stronger infrastructure to support technological innovation on the part of Canadian industry. And far more must be done to ensure that knowledge is transferred effectively to industry and that companies can count on adequate resources to enable them to commercialize R&D results here in Canada.

Third, Canadian industry has a greater role to play in enhancing technological innovation. The need is greater than ever for more concerted efforts to improve production efficiencies, invest in upgrading worker skills at all levels, share expertise in world-class business practices, and strengthen design, engineering and service capabilities in order to improve customer value.

And above all, Canada needs to improve its ability to grow our small and mid-sized enterprises into larger, more successful companies, to ensure we remain a diversified, value-added economy with high-paying jobs.

Without an adequate skills base, however, these things won't happen. One message that shouldn't escape any of us is very clear:

while young Canadians today have a wide range of educational choices to make, not getting an education isn't one of them.

Globalisation and mechanization make unskilled workers particularly vulnerable. The message to anyone thinking of dropping out of school early is this: no skills, no job.

The challenge for all of us is to do a much better job of matching the skilled workers we produce with what industry will need in the future, and it's a much tougher job than it would seem at first glance. Many of the fastest-growing types of jobs didn't even exist twenty years ago, and the market has been notoriously hard to predict. The Wall Street Journal story I mentioned earlier had some interesting statistics about how badly one of the best-informed agencies, the Bureau of Labor Statistics, had fared in predicting the future. Here's another extract from that article:

In 1988, the agency predicted that the number of gas-station attendants would rise from 308,000 to 331,000 in 2000. When 2000 arrived, there were only 140,000. ...

In 1988, the BLS also projected travel agents would be among the 20 fastest-growing occupations, their ranks growing by 54% by 2000. Wrong again. The number of travel agents fell by 6.2%. Government

prognosticators foresaw an increase in travel -- but not the explosion of online booking.

Of 20 occupations that the BLS predicted in 1988 would suffer the greatest losses between 1988 and 2000, half actually grew. The agency predicted that the number of assemblers in electrical and electronic factories would drop by 173,000, a 44% decrease. Twelve years later, there were 45,000 more, an 11% increase. Neither outsourcing nor robots made as much of a dent as the BLS expected.

So we have our work cut out for us. The job won't be easy, but it's essential, and we need to get started now. And what better place could there be to start than here at SAIT, which is a leader in education in Canada.

Let me conclude by restating my support for the ongoing efforts of institutions like SAIT to make sure that necessary skills are there when needed, and that they are the right skill sets. The skills challenge we face is a complex one, and one we must 'get right'. Through continued communication and partnership between industry and education and training institutions, I believe we will not only 'get it right' – we will 'keep it right' as well.