

Innovation & Community Economic Development





Defining Colleges and Institutes: Innovation and Community

Are Canada's more than 150 colleges and institutes innovative by nature? The answer is an unequivocal yes. Conceived primarily in the 1960s, these institutions have evolved in many different and dynamic ways but all continue to

share a fundamental characteristic: responding to the ever-changing economic, social and cultural needs of their communities. Innovation and change go hand in hand. Rooted in approaches that are innovative and flexible, colleges and institutes are proactive in continuing to serve communities that have changed dramatically over the last 40 years, and continue to do so.

Colleges and institutes are intricately involved in innovation as it applies to the broader range of institutional activities. Applied research and commercialization of new technologies as well as community economic development, working with industry, adult skills development and outreach to diverse elements of the community are all areas that fall under the umbrella term "innovation."

This issue of *College Canada* explores and showcases the broader definition of innovation as it applies to Canada's colleges and institutes.



Gerry Brown
President, ACCC

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Colleges and Institutes



INNOVATION

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THERE ARE MANY DEFINITIONS OF INNOVATION, but a particularly apt description for college usage comes from the Conference Board of Canada (2004) in suggesting that it is “a process through which economic or social value is extracted from knowledge ... through the generation, development and implementation of ideas ...to produce new or significantly improved products or processes”. In that context, the colleges are in position to be fundamentally important in fostering innovative activity in Canada. Unfortunately, while few would refute that colleges play a meaningful role in our society today in both preparing and educating a skilled, competent workforce, not as many would readily acknowledge that colleges serve as a catalytic sounding board to assist economic sectors in achieving positive growth, development and innovative breakthroughs. Moreover, not all college practitioners grasp that innovation is also an important concept for the colleges themselves, one which presents a critical lever which allows colleges to enhance their own well-being, as well as to establish a sound basis upon which mutual benefit partnerships can be nurtured with the broader public and private sectors.

Humber, for one institution, acknowledges innovation as a core institutional value, which has proven to be a significant instrument in fostering change and an essential tool in implementing its own strategies for growth, institutional health and survival. Indeed, Humber deliberately creates an environment which embraces innovation by cultivating partnerships, by trying new ideas of content and delivery, and by empowering students and staff. The College sets out to be in the forefront of technological advancement and cutting edge learning systems in order to provide its learners with the skills and attitudes that will surely be required in our fast moving contemporary knowledge and global economies. The concept complements the institution’s efforts to develop graduates who are prepared for the future, ready for the changing needs of the workplace, and attuned to a life of ongoing learning.

Many compelling factors have convinced Humber that it is mandatory to focus on innovation in four related, but different areas:

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STRATEGIC INNOVATION

- Allows new opportunities for colleges to emerge.
- Leverages economic development, creates worth and value by implementing new ideas (e.g. brings to market a stream of new and improved added-value programs and services).
- Forces and supports the anticipation of marketplace shifts.
- Allows the organization to stretch its goals and to leapfrog to make greater progress faster.
- Increases revenues from new or improved programs and services to achieve higher market share and accelerate college growth.
- Enables the achievement of higher margins and surpluses to reinvest in new college capabilities.
- Creates incentives to equip students with competencies to meet today's dynamic marketplace and to avoid becoming "graduates of the past"; promotes flexible attitudes, creativity and problem-solving skills to produce savvy graduates with the know-how to successfully negotiate the constantly changing variables currently expected of the workforce.
- Fulfills the College's mission of lifelong learning.
- Helps students learn more than subject matter by stressing the application of content to problem-solving and forward thinking.

OPERATIONAL INNOVATION

- Applies to directional and attitudinal changes within management ("managing change by changing managers"), which allow professionals to think out of the box, to seek new methodologies and approaches, and to enable the empowerment of people.
- Complements surviving, adapting and prospering in the changing work and external environments
- Supports ongoing planning for growth, new programs and process improvements – ways that will encourage development of more relevant programs and delivery methods, and a quest for newer, better markets.
- Improves efficiencies and productivity margins.

COMPETITIVE INNOVATION

- Assists institutions to avoid **not** being on the leading edge in relation to today's highly competitive world.
- Compels colleges to sharpen strengths and differentiate themselves from other providers.
- Improves program quality and relevance to changing marketing needs.
- Separates not only tangible assets like capital investments, but also intangible ones like staff skills, their creativity, knowledge and adaptability.

- Fosters knowledge and new ideas on which colleges can capitalize.
- Supports ideas for greater responsiveness and relevance in colleges to meet fast moving societal change.

STUDENT INNOVATION

- Assists necessary and new approaches to learning to serve students with wide and diverse backgrounds.
- Improves accessibility through technological know how, and increases ability to reach people asynchronously (any time, anyhow, anywhere) by replacing more conventional methods of delivery.
- Exerts considerable pressure for ongoing curriculum change in the context that colleges are more closely connected to the workforce than any other part of the higher educational sector.
- Engages students more effectively through dynamic and interesting practices.
- Allows the institution to be flexible in adapting to the rapid pace of change and the impact this has on both the work place and the workforce.

CONCLUSION

Today, education is the primary ticket to success, both for individuals and for the broader groupings of firms and even nations. Our colleges have long been training tomorrow's leaders and supporting productive innovations by creating and implementing ideas and knowledge. Yet, constantly escalating demands of competition, accountability and information access are changing the way that colleges must operate in the future. Notwithstanding any past successes with innovation, as well as in skills and knowledge, if colleges wish to remain relevant in today's highly competitive world, they must accept that standing still is not an option. Nor will the government and taxpayers support indefinitely those institutions which do not seem to be providing what the new economy requires. With the right measures in place, such as supportive leadership, policies and funding, and strong partnerships combined with a private sector that encourages forward progress, colleges and industry can embrace innovation together. In this way, much can be accomplished in the future and, significantly, colleges can be positioned as being absolutely critical to Canada's hopes for successful health and prosperity in the twenty-first century. At the very least, it is incumbent upon our colleges to implement sustainable improvements in curriculum, efficiency and productivity, and to instil a consistent commitment to embrace leading edge educational practices and ideas as a vital component of the lives of everyone in their institutions. Not to do so will mean the colleges have failed in their mission, and, worse, could seriously diminish their relevance to tomorrow's society. ■

ECONOMIC DEVELOPMENT

& A New Millennium Mandate for Canada's Community Colleges

By Ray Ivany, President, Nova Scotia Community College

Article reprinted from *College Canada* Vol. 5, Issue 1

Canada entered the new millennium during a period of great prosperity. Our national Gross Domestic Product (GDP) has been growing steadily for several consecutive years, interest rates have stayed moderately low and unemployment has been recorded, in many regions, at the lowest levels in decades. The news gets even better as recent studies predict that Canada's GDP gains in the coming year will exceed those of the G-8 countries with the exception of the United States. Even lingering concerns about sluggish growth in productivity have begun to wane as business spending (on machinery and computers for example) increases dramatically while the technology sector leads the economy.

These and other economic indicators leave little doubt that Canada, like the other industrialized countries, is experiencing the impact of globalization very much in the manner and sequence first elucidated by Robert Reich in *The Work of Nations: Preparing Ourselves for 21st Century Capitalism*. Reich's thesis was eloquently straightforward. In a world where capital can move at the touch of a keypad, trade and regulatory environments are increasingly harmonized, individual industries can locate virtually anywhere and technology is almost ubiquitous; the primary factor in the competitiveness of a nation state becomes the skills and knowledge of its work force. The resultant intellectual capital formed by what people know, and the products or services they can produce with that knowledge, has become the primary feature of the new economy.

This new reality has ushered in profound changes in the way business decisions are made. Companies that previously would have located in close proximity to natural resources and transportation corridors now place a premium on choosing a site where there is an educated and skilled work force and high-speed network communications. The new rules, which are still being written, are very different than anything seen previously. The knowledge economy really does represent a new epoch – regions that, in the industrial age, were considered on the periphery have suddenly vaulted to the forefront (e.g. Ireland); corporate strategy has been revolutionized as competitors, suppliers and consumers cluster in particular geographic locations (e.g. Ottawa-Carleton); and, in much the same way that the Industrial Revolution created new occupations, the digital age has spawned jobs such as webmaster, multimedia product tester, e-business analyst and cyberjournalist.

It is within this new world order, one in which Canada faces both opportunity and threat, that community colleges must reshape and revitalize their roles in economic development. This is not new ground for Canada's community college sector (colleges, collèges d'enseignement général et professionnel (cégep) and technical and vocational institutes). Many were founded during the economic boom of the early-to-mid 1960s precisely to address the needs of a rapidly expanding manufacturing and service economy.

Nonetheless, it is not surprising that colleges created in one period to serve the needs of a very different world have faced, in microcosm, the same transformative challenges as those affecting every aspect of society at large. Most colleges have experienced radical shifts in their programming as the need for certain occupations has waned and new ones have emerged. Over their relatively brief existence, Canada's community colleges have proven themselves to be highly responsive and adaptable to changes in regional and national economies.

Still, this is no time to rest on our laurels. Clearly a new set of challenges brought about by the knowledge economy is already having a profound impact on our institutions. We need to examine, in detailed and specific terms, the implications of these realities on our role in economic development. I see a number of possibilities as we strive to respond creatively to this brave new world.

OCCUPATIONAL PREPARATION

The traditional community college role of occupational preparation has only increased in importance in the current environment. As the Canadian economy has continued to expand, the labour market has tightened considerably and the resulting skill shortages now represent a potential inhibitor to future growth. It is particularly noteworthy that, despite

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some regional and sectoral variability, growing skill shortages are not restricted to the high technology fields alone.

This trend is entirely consistent with one of the fundamental characteristics of the knowledge economy; i.e., it not only creates new job categories requiring unique skill sets, but it also drives up the *knowledge intensity* of existing occupations. This is true not only for technical skills but also for the broader employability skills such as the ability to solve problems independently, manage information flows, communicate well and work effectively in a team environment.

According to the latest Human Resources Development Canada (HRDC) data, the challenge to strengthen the economy/labour market alignment is expected to become even more compelling over the next five years. HRDC forecasts that some form of post-secondary education will be required for 72 percent of the 1.3 million new jobs expected to be created between 1999-2004. Furthermore, they predict that the largest percentage of new job creation will occur in occupations that require community college diplomas or trades certificates such as health and human services, computer technology, construction and transportation trades and protective services.

These and other similar studies make it clear that the ability, and capacity, of Canada's colleges to prepare an increasingly heterogeneous student population (high school leavers, adults re-entering the labour force and university graduates) for new economy jobs is, and will continue to be, a major determinant of our nation's competitiveness.

CONTRACT AND CUSTOMIZED TRAINING

After work force preparation, the delivery of customized training currently ranks as the second most important role for colleges in economic development. The vast majority of Canadian colleges now offer customized training to business, not-for-profit organizations and government clients. In many colleges, gross revenues generated from these activities can represent over 20 percent of the total operating budget.

However, the significance of customized training to economic development is not tied solely to the volume of activity. For many colleges, it relates directly to our mission statements and is a fundamental part of our culture. The bottom line for our business partners is that they need constant upgrading of their corporate skill sets in order to compete successfully in either local or global markets. The dynamic interaction between colleges and individual businesses is appropriately viewed as a demonstration of our real-world relevance and many colleges are restructuring to fill this important and expanding niche.

Our experience in Nova Scotia, for instance, can be considered typical of other jurisdictions in that customized training activities tie our college directly to the needs of local industry. As we work with businesses to identify their training needs, we form important partnerships that extend beyond the relatively straightforward provision of training. Since the impetus for training is often the adoption of a new technology, the college is immediately drawn into the more complex role of supporting technology transfer and diffusion. Depending on

the nature of the corporate-college relationship, it is not uncommon for the scope of activity to include direct support for the company's innovation strategy.

This expansion of customized training to include other sophisticated functions has led to the Nova Scotia Community College's decision to recruit a Vice-President of Partnerships and Innovation. Similar arrangements have been struck by colleges elsewhere as they respond to the increasing demand for high quality, just-in-time training and related services.

APPLIED RESEARCH

As economic success becomes more directly tied to the commercialization, or early adoption, of new technologies, it is likely that Canada will have to address at least two closely related problems. First, the old, largely raw resource-based Canadian economy featured a significant proportion of foreign-owned branch plants that resulted in research and development (R&D) functions taking place at corporate head offices outside this country. In the new knowledge economy, such R&D activity can be more widely dispersed and networked. With appropriate public policy and private sector support, this presents great opportunities for the community college sector.

A second issue relates to Canada's spending patterns on research and development. Overall we lag behind most of the G-8 countries. But our expenditure pattern is not uniform across the R&D continuum. Funding directed to pure and basic research is disproportionately greater than support allocated for work closer to the commercialization stage. This applied research gap has been increasingly cited as a barrier to a

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THE INNOVATORS

Remote laboratories, an alternative energy fuel cell, and online fire alarms are some of the ground-breaking applied research projects at technical institutes like the Northern Alberta Institute of Technology

Edna Cabalo watches as the arm of the Northern Alberta Institute of Technology (NAIT) gas chromatograph she is controlling injects a needle into a vial of methylpentenes, removes a sample and spins over to inject it into the chromatograph for testing. Lines on a graph on the computer screen begin to move up and down as the instrument separates the methylpentenes into their individual components and measures them. The chromatograph is performing a standard experiment for chemistry students learning to synthesize organic compounds – but what's different today is that Edna is nowhere near NAIT or the lab. She's working from a desk in her home several miles away, controlling the chromatograph using her laptop, watching the instrument work via Webcam and receiving data from the experiment in real time.



Edna Cabalo controls a NAIT gas chromatograph (pictured on the screen) over the Internet.

“Being able to work this equipment over the Internet as it does a real experiment is something I never thought I'd see,” says Edna, a NAIT Chemical Technology graduate, part-time Athabasca University student and “guinea pig” for the project. She smiles as the chromatograph posts its final tally of the components from the methylpentene sample. “This website enables you to run an experiment from anywhere and get the results as if you are really in the lab. This is truly amazing.”

The technology was developed by a team consisting of Dr. Ron Currie, Jit Baran and Kieron Quigley from NAIT, along with chemistry professor Dr. Dietmar Kennepohl and physics professor Dr. Martin Connors from Athabasca University. It could revolutionize the way chemistry experiments are done and taught, says Ron. “These are not canned experiments. This is real equipment operating in a real lab and controlled by students online. We've had students and fellow instructors running the equipment in our lab from as far away as New Zealand. The possibilities arising from this technology are endless.”

Although research has traditionally been the domain of universities, technical institutes' focus on technology and close relationships with business and industry are enabling them to play a greater role in applied research. According to Roger Armstrong, Manager of Applied Research and Innovation at NAIT, there is really no limit to the ideas that could benefit from applied research. “We have technical experts on staff in areas such as business management, health and hospitality, information

technology, and environmental sciences,” he says. “NAIT is an ideal place to take new ideas and find a commercial application for them.”

The benefits to the community stemming from applied research are vast, adds Roger. “Research is a key link in providing the solutions to the problems that exist in today's world. Information technology, health care, manufacturing, communications, transportation – everything is affected by the advances made through applied research. Simply put, applied research moves technology forward and makes our lives better.”

Ron has high hopes for the remote lab website, created with the help of \$15,000 in startup funds from Alberta Learning's Learning Enhancement Envelope and a \$199,000 grant from the Government of Canada's Office of Learning Technologies. The site now enables students to run experiments on infrared spectrophotometers and gas chromatographic instruments, but Ron says the site can potentially be used to run any analytic equipment within the physical and natural sciences, engineering and medicine. “The next phase of the remote lab site is to open source it over the Internet so institutions and businesses can use it,” Ron says. “It will enable organizations that can't afford expensive equipment on their own to share their resources, and it will enable them to train their employees from a distance. We are hoping it will find a real following out there. We're very proud of it.”

Roger expects another applied research advance for the Institute later this fall when an interactive interpretive centre for the NAIT Fuel Cell Project opens. Canada's first high voltage, fully operational fuel cell was installed at NAIT last fall. Funding for the \$3.25 million applied research project was provided by Western Economic Diversification, the Government of Alberta, ATCO Gas, and Climate Change Central.

NAIT's applied research project team has investigated ways to use the clean energy produced by the 200kW phosphoric acid fuel cell, such as heating the swimming pool and domestic hot water in the Activities Centre, plus other thermal sinks on campus. “The interpretive centre will help explain the environmental benefits of fuel cells to students, businesses and the public,” Roger says. “It will give everyone an opportunity to check out one of the most exciting technologies to emerge in the 21st Century so far.”

When NAIT Electrician Instructor Kevin Harrison first began work on his fire detection and alarms systems program, his sole motivation was to try and create a new

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strong Canadian innovation culture—a vital attribute in the knowledge economy.

Just as the colleges' customized training functions grew out of a real and demonstrated business need, the above circumstances have led to a marked increase in the demand for colleges to play a more active role in applied research. Some observers—both inside and outside the colleges—view this development as an encroachment on the traditional role of the university. I disagree. The new circumstances we face provide a great opportunity to appropriately differentiate college and university research functions and thus ultimately pave the way towards more meaningful and effective inter-institutional partnerships. Canada needs the maximum R&D capacity of both the college and university sectors.

In the current environment, there can be no monopoly on the creation of new knowledge. Indeed, given the particular challenges facing Canada, I would argue that the colleges' applied research role is not only essential but long overdue. There is little question that the match between the skill sets of college faculty and the practical hands-on nature of applied commercialization stage research is strong and dynamic. Furthermore, Canadian community colleges demonstrated an institutional culture and capacity for supporting active research programs through their strong response to the first round of Canada Foundation for Innovation funding.

It should also be noted that R&D is not an entirely new role for Canada's community colleges. Supported by active public policy measures and private sector involvement, Alberta, Ontario and Quebec, for many years, have aligned individual colleges and/or campuses with particular regional or economic sectors through a range of activities

including a strong applied research function. The Quebec experience, where individual cégeps have established Centres of Excellence tied to a specific industry, is particularly noteworthy in this regard.

What applies to full college and university participation in R&D activity is equally relevant for other partners and players in the knowledge economy. The evidence is all around us that knowledge production and learning are now truly flourishing outside the institutional 'boxes' where they have been traditionally located. Some would contend that this threatens the legitimacy of the college and university role. Again, I would argue to the contrary. These new realities, I believe, provide a wonderful opportunity for leadership and collaboration across the whole knowledge, learning and R&D spectrum. Again the community college is extraordinarily well placed to make a vital contribution in this regard.

BUSINESS INCUBATION

The co-location of business incubation space and post-secondary educational institutions has proven to be a highly successful economic development strategy in many countries. In the United States for instance, over one-third of community colleges offer this type of assistance to small and medium-sized businesses. This support frequently takes the form of subsidized space rental and low-cost administrative services along with on-site consultancy in marketing, finance and technology.

The success of these arrangements in the United States and elsewhere has been well documented. For example, Itawamba Community College in Mississippi is credited with helping the regional

furniture industry modernize and increase its global competitiveness; the Florida/NASA business incubation centre at Brevard Community College houses individual technology-based companies through the critical start-up phase; and, EVC-Syd in Denmark is helping offset the region's high business development costs by increasing the innovation capacity of the work force.

While the business incubation function is less developed in Canada, it does exist and has grown from the colleges' long-standing involvement in local/regional development initiatives. The college role has now grown well beyond simply developing an array of programs in response to local industrial needs. Colleges have become much more active in local development initiatives and are strongly focused on "putting legs under ideas." This has created within colleges a repository of information and technical expertise that can be drawn down by individual businesses as well as serving as a platform for networking within industry clusters.

While it is still unclear how the business incubation function will evolve in the Canadian context, I believe this role may represent the next frontier in college-business partnerships. Much as customized training came to the forefront in the 1980s and 1990s, business incubation has the potential to assume a similar position of prominence within the college community over the next decade. For example, Nova Scotia's business prospecting strategy has resulted in the NSCC housing and supporting several firms as they established a presence in our province. It is not difficult, therefore, to imagine a new reality where colleges not only provide space and services but also begin to take equity positions in the businesses they incubate - thereby giving new meaning to our claims of being connected to the "real world"!

LIFELONG LEARNING

One of the philosophical underpinnings of the community college movement is the belief that increased access to post-secondary education can be a powerful force in improving the lives of individuals and society at large. As we are discovering in the knowledge economy, this principle extends beyond John Dewey's notion of 'education for good citizenry' to the harder-edged maxim of 'learning a living.' Despite Canada's macro-level economic success, the dividing line between *haves* and *have-nots* – or, perhaps more appropriately, *knows* and *know-nots* – has never been more pronounced.

Over the past ten years, the Canadian economy has generated approximately two million new jobs for people with some level of post-secondary education. Unfortunately, during the same period, the economy has shed almost a million jobs for those with less than a high school diploma. Given the rising skill requirements of new jobs, and with over 30 percent of some provincial labour forces without a high school certificate, it is unlikely that those displaced will re-enter the work force without additional training. Add to this the apparently intractable problem of getting more of our youth to finish high school – high school completion rates of only 75-80 percent are stubbornly persistent – and I believe Canada faces a potential tearing of its social fabric as a significant portion of our population becomes increasingly marginalized.

Community colleges, founded on the three educational pillars – access, program relevance and connectivity – are ideally suited to respond to this crucial need. In some ways, the current economic circumstances have transformed our historical objective to democratize

access to higher education from a social policy goal to a national imperative. I have great confidence that our experience with literacy, remedial, part-time, and adult education – together with the lead the colleges have taken in increasing access, effectiveness and efficiency through the application of prior learning assessment and recognition principles and practice - has given colleges a strong foundation for supporting an individual's lifelong learning needs.

Yes, this new economy is primarily about people and knowledge - but it is also about who gets in and who gets left out. It would be all too easy for our colleges to be swept up in the tide of 'high-end' programming. Maintaining a focus on constituencies who need us most will be a profound test of our institutional mettle.

CHAMPIONING THE FUTURE

While the tide of economic circumstance and social reality are running strongly in our favour, there are significant barriers to achieving the full potential of the community college in Canada. In many respects, the colleges have been very quick off the mark to respond positively and creatively to rapidly changing circumstances. However, these early gains must be consolidated and built upon if further progress is to be made. This will not be easy.

In my view, it will take nothing less than a major national policy initiative by provincial and federal governments, acting in concert with the college community, if Canada hopes to prevent the emergence of a permanent underclass. Such an initiative was undertaken by Ireland, which invested in technical education

linked to economic development strategies. The Irish investment caused the *community college* student population to grow by 34 percent, and transformed a nation known as a land of emigrants to the Celtic Tiger whose rich fortunes not only provide wonderful working lives for their young, but also attract people back to their roots.

Canada's economic prospects could be even greater than those of Ireland. Community colleges can contribute to this prosperity, not by changing our mission, but by adhering to our founding principles and revitalizing our approaches to supporting economic development.

After all, the fundamental principle underlying a knowledge economy that attaches a premium to human resources is not far removed from the Greek root of the word education, *iretrea*, which means to heal, in the sense of empowering and enriching others. Since their creation, community colleges have been intensely focused on developing human potential. Now, as society more broadly understands and embraces this mission, community colleges must demonstrate the courage of their conviction that improving the lives of individuals through educational opportunity is perhaps the truest measure of a nation's success. ■

island community economic development

By Jeannette MacAulay
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Community Based Trades Training, Holland College

holland college has become widely known for innovative approaches to training, community development, and for the early adoption of individualized, self-directed, competency-based education. In addition, it has a long and successful tradition of providing quality trades and technology training on Prince Edward Island.

Recognizing that the strengths of a community come from the skills, attitudes and attributes of its residents, Holland College has long been committed to the needs of learners, industry and community.

While there is a shortage of skilled tradespeople in Canada, a challenge for Prince Edward Island is the relationship between the shortage of skilled tradespeople and the province's low levels of education and literacy. The recent International Adult Literacy Skills Survey revealed a positive correlation between educational attainment and literacy levels. The study found that education isn't only the product of economic growth, but that education and the skills it creates plays a role in creating economic growth. Developing a strategy for addressing the low level of skilled tradespeople who possess adequate essential skills like literacy and numeracy may contribute to the economic advancement of individual communities in PEI and to the province as a whole.

In 2002, when communities in Western Prince Edward Island identified a critical shortage of skilled carpenters, Holland College, local business and the Western PEI Education/Service Task Force together developed the West Prince Carpentry and Career Enhancement Program.

This unique program follows the College's successful competency-based model for adult learners by offering a variety of delivery methods. *"The primary goal of the program is to provide credit for learners to complete the majority of the College's Basic Carpentry skills while in their own community and to offer them enhanced academic and employability skills,"* stated Dr. Brian McMillan, Vice-President of Programs at Holland College.

Fifteen students, aged 18-42, and with backgrounds ranging from computer technicians to farmers, fishermen and basic carpenters were selected for the program. Beginning in January 2003 and ending in April 2005, the program was scheduled to coincide with the seasonal employment circumstances in the area. The curriculum was designed to provide skills to learners in three key areas: 1. Literacy and Numeracy Assessment and Development; 2. Employability Skill Development and 3. Carpentry Training. Upon completion, graduates will have completed the skills required to receive their certificate in pre-apprentice basic carpentry.

Dean Getson is the Coordinator for Community-based Training on behalf of the West Prince Educational Task Force and is pleased with the success of the program to date. *"This course could be used as a model of best practice for community-based training anywhere. Holland College had the foresight to listen to the training requests of a community and although there were some learning curves, thirteen individuals are moving closer to achieving their Carpentry certificate. It has proven to be a win-win situation for all involved."*

The delivery of this program has realized numerous benefits. The students were given an opportunity to complete the majority of Holland College's Carpentry program in their own community. They were provided with enhanced knowledge and skill development in literacy, numeracy, and employability skills. For the community, specified training needs were met and existing community infrastructure was utilized including the local high school shop facilities and classroom areas.

The program is a hit with students. Kirk Arsenault, a participant in the program states, *"I came into this course as a computer technician and didn't know a floor joist from a tooth pick. After the first two phases of training, I have started my own construction company. It is all thanks to Holland College and the West Prince Educational Task Force."*

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Industry Partnerships - Innovation in Action

By Kim Babij
Marketing Coordinator
Red River College

When you walk into Standard Aerospace Limited and look around, it may appear to be just like any other workplace. But, unseen by the eye, there is a common thread that connects many of the employees to one another.

Not only do the 2,400 worldwide staff members have a mutual goal of making the company the best gas turbine service operation in the world, more than 20 per cent of Standard Aero's employees are graduates of a Red River College training program.

It's not just a coincidence. Red River College has a long history of responsiveness, renewal and innovation, just like the aerospace industry and the Winnipeg community.

One of the methods used by the College to stay current and responsive to the requirements of the marketplace is the program advisory committee. Twelve hundred representatives from over 1,000 employing or service agencies provide a direct link to the real world and consult extensively on ensuring all of the College's programs adapt and change to economic and social realities. As such, innovation in the community partnerships developed has become part and parcel of the College's vision and mandate.

Innovation, identification of needs and customized solution-

making has been crucial in solidifying the strategic partnership between the College and Standard Aero. Working together to provide training opportunities to students that meet the specific needs of the aerospace service company, from the front office to the shop floor, Red River College connects workers in all four corners of Standard Aero's Winnipeg plant.

But Standard Aero isn't the only company that boasts a high level of Red River grads on its staff. Bristol Aerospace in Winnipeg also maintains a partnership with RRC, hiring students who have taken specialized training through the College.

Based on feedback from employees, company executives, and College administrators alike, it's a connection that's working for everyone.

Standard Aero was established in 1919 as a small, local machine shop. It has become one of the world's largest small-gas-turbine engine and accessory service companies with sales of over \$750 million.

SA employs approximately 2,400 people, 1,400 of those in Winnipeg.

Regional airlines, private businesses, governments and militaries all rely on Standard Aero for the service of their aircraft engines (including helicopters), to keep their machines operating safely in the sky.

One of the people physically involved in the servicing is Red River graduate Dan Sanness, a "final cell" mechanic who dismantles the engines that come in for inspection, and reconstructs them once they've gone through the necessary stages of service or repair.

Sanness found his way to Red River and Standard Aero about six months after going on Employment Insurance. He had been laid off from a local bus manufacturing company during a round of cuts that saw several

hundred people lose their jobs.

"I was at the E.I. office and I stumbled on a newsletter that was advertising some training they were offering at Red River. So, I went to the info session, took a test, and I got started. It was that easy," he remembers.

Sanness says the training was intense, but it gave him a set of skills he doesn't believe he could have gotten anywhere else.

It also gave him a shot at the job that he's now doing, and thoroughly enjoying.

"I love it here, it's so good. It's totally people oriented and everyone treats each other well. I like that you can interact with anyone, even the President of the company, and have discussions on the shop floor. In other places, you wouldn't go talk to people in positions above you. Here, everyone listens to you. It's a great atmosphere."

Equally great, he says, is the fact that the training hasn't stopped, even though he's no longer a student.

Every worker is offered the opportunity to take extra training which often leads to better pay, or promotions within the company.

"It's continuous training, all the time. When I first came, I was dismantling engines, now I'm doing inspections. It makes you more useful for the company. You are more valuable the more you know. There's training for everyone, they want it for all the employees. They want everyone to know how to do every job," says Sanness.

It's because of things like training and open communication that Sanness loves his workplace, but he's not the only happy employee there.

In 2002, *Maclean's* magazine picked Standard Aero as one of the

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INNOVATIVE METHODS MAKE YOUNG MEDIA MASTERS

College Support to the Girls' Television and New Media Camps

By Rita Chahal
Executive Director
Women in Media Foundation

With most full-time students and staff gone for the summer, a college campus sits quieter than normal in the summer heat. Suddenly, the halls come alive with teenage voices - the participants of the Girls' Television and New Media camp. Waiting to interview a staffer or a student in the atrium so they can practice their interviewing techniques, blocking the staircases from top to bottom to take some unusual shots with their newly discovered digital video cameras, or occupying both elevators for an exciting ride to their classroom, the girls, ranging in age from 12-15, will explore the new downtown Exchange District campus of Red River College (RRC) over the next two weeks.



This scene could not have been visualized without RRC. With colleges mandated to reach out and engage the community, often using innovative methods and, importantly, mindsets to do so, it was no surprise that our



local college, Red River College, was the partner of choice in delivering the Girls' Television and New Media Camp for girls from diverse communities in the Winnipeg area.

The camps were initially viewed by the newly-formed Women in Media Foundation (WIMF) as an ambitious undertaking. On approaching RRC, that doubtful ambition became an achievable reality. With the administration at RRC determined to help us to re-launch the program, a model was proposed that brought industry, community and post-secondary education together. The

college provided the infrastructure: classrooms, computers, editing suites, access to video and audio equipment as well as a cash contribution for a nutrition program. WIMF in turn was in a position, with some support from Human Resources and Skills Development (HRSD), to hire two recent graduates from RRC's Creative Communications program as instructors for the camps. In June, 2003, WIMF

launched "mini" versions of the TV and New Media Camp. All six sessions in Winnipeg were oversubscribed. The success of our test model at Red River College, and the realization that the innovative community outlook characterizing RRC was shared by colleges across the country, encouraged us to approach two other institutions: the Southern Alberta Institute of Technology in Calgary and Nova Scotia Community College in Halifax in the summer of 2004. Administrators at both colleges were supportive which led to the creation of other successful partnerships for camp delivery. Partners now include CanWest Global, CBC Manitoba, The Winnipeg Foundation, HRSD and CHUM Limited.



Again we recruited new graduates at each institution to deliver the curriculum. Instructors attended a two-day "Train the Trainer" workshop at Red River College hosted by the Foundation. We also revised the curriculum to offer a full two-week session in Calgary and Halifax thus allowing participants to produce a full documentary.

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Flexibility and Responsiveness -

Silicon Valley North and Algonquin College

By Robert C. Gillett
President
**Algonquin College of Applied Arts and
Technology**

Algonquin College is fortunate to be situated in the City of Ottawa and serve a geographic region that is being driven economically by exponential growth in the technology clusters. Employment in technology companies now exceeds employment with the Federal Government, which, in the past, has been the single largest source of employment in the City.

Responding to the predicted 100 percent economic growth of our community over the next 12 years and fostering the development of the human resources necessary to support that growth has posed significant challenges for the College and for the community at large. The College has been forced to reassess its entire program offering, infuse massive amounts of technology into the institution in a very short period of time and, in a competitive environment, try to recruit appropriate faculty, staff and management with the knowledge and skills appropriate to the new economy. Algonquin College has had to change not only its internal culture and processes but also external perceptions as colleges, in general, have been viewed as lower-level post-secondary institutions compared with universities. The fact that colleges now provide high-level applied education and training for all economic sectors and in many ways compete directly with universities for students seeking value-added skills on completion of their studies is a message that has not as yet reached all levels of the community.

The role of the President, supported by the Board of Governors, has been to serve as a catalyst for change and a link to the various sectors of the community to ensure that the graduates of the College have the requisite skills to meet the changing needs of employers in this region. Each member of the management team is deeply involved in the community and through their networking brings forward ideas for curriculum change as well as potential business opportunities for the future. The participation of the senior level staff of the College on all economic development committees provides concrete evidence of our commitment to being a real partner in all aspects of the economic development of this region.

Partnerships and alliances have become key factors to success in Ottawa's rapidly changing economy and Algonquin College, through its President and the leadership

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Cégep régional de Lanaudière -

A Partner to its Economic Community

By Donald Fortin
Former Directeur général
Cégep régional de Lanaudière

The Lanaudière region of Quebec is located between the Laurentians and the Mauricie area, directly north of Montreal. Recognized as having the highest rate of demographic growth in the entire province, the Lanaudière region grew between 1971 and 1998 by 121 percent to reach a population of 400,000, 99 percent of whom are francophone. The region compares favourably with the Quebec average in terms of economic development, boasting an industrial base in the food, wood, metals, plastics and furniture manufacturing sectors.

Studies conducted over a period of more than fifteen years clearly demonstrated that the population located in the southern portion of the Lanaudière region was being poorly served in terms of access to public college post-secondary education. Although the region's population was socio-economically more affluent than the Quebec average, the rate of enrollment was lower than average as the region offered its student clientele the least number of technical and vocational training services.

Guided by a vision of partnership in economic development, the community dedicated itself to establishing and organizing a new regional college. In 1998, the Ministry of Education modified the loi des collèges (Colleges Act), adding a chapter dealing with the creation of regional cégeps, and establishing, through letters patent, the Cégep régional de Lanaudière. Composed of three constituent colleges - Joliette (formerly known as the Cégep Joliette de Lanaudière), L'Assomption (formerly a private college) and Terrebonne (a new institution) – the new Cégep officially opened in August, 1998 with an enrollment of 3,200 students and the capacity to accommodate another 1,300 learners.

The roster of technical training programs was improved in order to reflect a shared desire to promote the kind of synergy needed to spur socio-economic development throughout the region. Each of the three institutions was placed in charge of programs specific to their community but also complementary to those offered by the other colleges, with an emphasis placed on industry-responsive technical programs. For example, the college in Joliette offers a "family" of programs in agriculture, horticulture and food processing, all of which are directly linked to economic activity in its community. To ensure the relevance of teaching and the applicability of skills to the current

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Diamonds and Northern Economic Development

**By Tim Gauthier
Manager,
Public and Corporate Affairs
Aurora College**

To paraphrase the old song, diamonds are a burgeoning territorial economy's best friend.

In the diamond boom now occurring in the Northwest Territories (NWT), the territorial government saw an opportunity to not only open a new frontier in resource development, but to develop the NWT's economy in a more substantial way: by building up the local work force.

"The territorial government decided the Northwest Territories would no longer be simply a source of raw materials," said Maurice Evans, President of Aurora College. "They insisted on participation agreements and impact benefit agreements that would specify the number of Northerners employed at these mines, and the benefits which would accrue to local communities."

This marked a major philosophical shift in Northern economic development. For the first time, resource companies were required to hire a set number of Northerners to ensure that economic growth from the mining developments would benefit the local economy. But a challenge to this philosophy cropped up: a lack of Northern residents with the required training to fill jobs according to the levels specified in the agreements.

"This workforce-based approach to economic development means skills will be built up and will remain in the North, preparing people for future projects, and directly contributing to longer-term economic benefits," Mr. Evans said. With a trained work force prepared to use their skills in a variety of industries, more money will stay in the North.

In the past, mines hired most of their workers from out of province, and flew employees in and out, resulting in a significant loss of dollars. "But the days of fly-in and fly-out are over," Mr. Evans said.

To foster this change in attitude, the government turned to Aurora College. As the territorial government's unofficial training arm, the College has always worked closely with government departments to meet employment objectives and develop the local workforce. The new approach meant Aurora College would be entering into a completely new training area.

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Positioning Niagara for Success In a Global Economy

**By Dan Patterson
President, Niagara College**

Article reprinted from College Canada Vol. 5, Issue 1

One of the hallmarks of Canada's college system is its ability to respond to local and regional economic needs and trends. This role continues to evolve as colleges transform their organizations – and their programs and services – in response to newly emerging industries and other economic changes shaping the communities they serve. The arrival of the information age, and its impact on virtually every sector, has created numerous opportunities for the flexible, enterprising college to effectively meet the growing needs of industry for skilled workers and access to new technology.

In a knowledge-based economy, colleges can, and are, successfully positioning themselves as vital and creative partners in the economic development of their communities. This is a challenge that Niagara College has embraced enthusiastically as we pursue our vision of "*acting as a major partner in developing the economic strengths and distinctive areas of excellence to position the Niagara Region for success in a global economy.*"

We pursue this vision using a three-part strategy: building on the existing strengths of the region; leveraging resources through partnership; and, making strategic investments in our facilities and programs in support of regional economic priorities. Driving the strategy is a clear focus on developing the critical skills already in demand and those that will assist in attracting new investment and industry to the region.

A recent labour market study completed by the College in partnership with Human Resources Development Canada has been a valuable tool for our strategic planning while providing local economic development authorities with a wealth of data and information to help shape their priorities and strategies for economic growth.

Long a staple of the local economy, Niagara's burgeoning hospitality and tourism industry is projected to continue growing at a rate of two billion dollars over the next four years. Niagara College is helping to fuel that growth by supplying the sector with workers skilled in the culinary arts, hotel and restaurant management and sustainable tourism development. To further support the industry, we have embarked on a strategic \$7.4 million expansion of our dedicated hospitality and tourism facilities. Besides providing a world-class, state-of-the-art training facility worthy of the industry, the expansion will create space for 375 additional students – almost double the current enrollment – whose employment prospects are virtually guaranteed.

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THE INNOVATORS *cont'd from page 7*



NAIT instructor Kevin Harrison feels the burn.

and interactive way of exploring different fire scenarios and how alarm systems work. The fact that he recently won an Excellence in Instructional Design award from the Canadian Association for Distance Education is an added bonus.

Working in cooperation with NAIT's Learning Resources D3 team, Kevin has developed a virtual reality CD-ROM that enables students to interact with a building and its fire alarm system. Learners can set a cyber-fire and observe different fire scenarios.

"It's a unique interactive learning experience," Kevin says. "You set the fire conditions and the fire progresses and you watch how the fire alarm responds. Students can see the smoke detectors respond, shut down the elevators and the fan systems and then turn on the sprinklers. You see all the elements working together as a unit and interact with the system just like you would in the real world." ■

A RURAL COLLEGE *cont'd from page 10*

- a commitment by business and industry to hire and support graduates; and
- endorsements to assist the college in accessing political bodies.

As major labour market adjustments will be required to address the growth of knowledge-based industries in BC,³ provincial policy-makers must take into account population demographics, labour market trends and diversification issues. However, they must also recognize that a regional labour force trained to "world class standards" continually requires a quality training and learning infrastructure that offers choice and flexible access to education as well as new technologies. Policy-makers must value the unique and diverse education and training requirements addressed by a community college education in the rural regions.

A community college education is a cornerstone for sustainable growth and development in rural communities. It prepares learners for a *preferred future* and is a *proactive approach* to rural economic challenges. Therefore, provincial governments need to encourage and support rural institutions in establishing relevant programming and course offerings while at the same time complimenting various province-wide economic development activities. Employees of the future need an unwavering commitment to life-long learning, an entrepreneurial approach to work, various technological, personal management and team-working abilities combined with a blend of skills that can be applied to a wide range of positions within the labour market. Where will our rural populations acquire this eclectic mix?

The need for tangible commitment and concerted effort by well-motivated learners, well-informed politicians and decision-makers, enlightened employers, economic development planners and educators will be key to ensuring a solid investment for the future success of the economic and social health of our rural communities. Considering that all knowledge doubles every five years, and will begin to double to every 72 days within the next decade, rural regions and their citizens will undoubtedly require a vibrant and continuously improving community college educational system. As such, this is not the time to put community college education on a political or funding "backburner." ■

(Endnotes)

¹ "What drives the economies of BC's rural communities?" Infoline Report, BC Stats, Ministry of Finance and Corporate Relations for BC, 1999.

² "People for Progress – Kootenay Community Consultation Process" sponsored by the MAETT and HRDC, May 1998 and prepared by Steele O'Neil and Associates, Cranbrook, BC.

³ "People for Progress" May 1998 page 12.

ISLAND COMMUNITY ECONOMIC DEVELOPMENT *cont'd from page 11*

Utilizing best practices in community economic development as a foundation, Holland College recognized that without local participation, lasting benefit could not be generated and more sustainable approaches to development would not be fostered. Best practice has demonstrated that the integration of social and economic action by appropriately supported community organizations is cost effective and creates sustainable results. The College looked at the West Prince Carpentry and Career Enhancement project as a way in which local people could realize substantial economic growth in their community through educational attainment. The principal goal of this activity is to develop jobs

that improve the community's use of local human, natural, and institutional resources.

While Holland College recognizes that successful community initiatives usually take several years to have a significant impact, the West Prince program is already seen as a success. With that in mind the College has undertaken a longitudinal evaluative approach to learn from the lessons of West Prince. Best practices will be extracted with an adoption of a model for community-based trades training. *"Community economic development involves a gradual accumulation of skills, practices, and assets combined with a community's local knowledge and support,"* commented Dr. Brian McMillan. *"It takes*

rigorous planning, research, and consultation to accomplish. With all that we are learning, Holland College looks forward to increased partnerships with Island industries and communities."

Based on the success of the West Prince Carpentry and Career Enhancement Program, new community-based training initiatives are now being looked into. West Prince has identified another worker shortage, the need for trained nurse practitioners. As a result, a Practical Nursing program is being sought by the community and could be the next innovative collaboration between Holland College and the community it serves. ■

INDUSTRY PARTNERSHIPS - INNOVATION IN ACTION *cont'd from page 12*

"Top 100 Best Companies in Canada to Work For". It was also chosen as one of the Globe & Mail Report on Business' "50 Best Companies to Work For."

Company President, Paul Soubry Jr., says the accolades are flattering but not entirely surprising.

"We deliver on what we say we will provide from a workforce and quality of life standpoint, it's that simple," says Soubry.

From a workforce point of view, Standard Aero is obviously delivering as promised, as the company is continually being awarded massive contracts to do work for an assortment of high profile clients.

Case in point, Standard Aero just won a five-year, \$70-million US contract with the United States government. The first five Rolls Royce 250 T703 helicopter engines arrived at the beginning of September 2004, fresh from duty in the Middle East.

The aerospace firm expects to service up to another 715 more by the summer of 2009.

All of the work on the engines - which are used to power the U.S. Army's fleet of Kiowa Warrior helicopters in reconnaissance and light combat duty around the world - are expected to be done at the company's Winnipeg facility.

About 20 more employees will be needed to tear down, clean, test, and rebuild the engines. Standard Aero will, once again, rely on Red River to help with the training and hiring.

"Our strategy of teaming with Red River College... is really paying off with our ability to hire. We've got trained people in the pipeline," Soubry told the Winnipeg Free Press on the day of the announcement.

According to Sam Lacoste of Red River's contract training department, that's exactly the sentiment he likes to hear from RRC's partners.

"The relationship has been great because we customize the training to fit their requirements," says Lacoste. *"Years ago, when they were*

expanding, we helped them do that, we must have put close to 100 or more people into Bristol by showing the students how to build aircraft panels, as part of a contract with Boeing. We'd train them, then Bristol would hire them."

Lacoste says the relationship has continued, with the companies typically coming to the Contract Training department to ask if a specific need can be met.

He adds, *"The big payoff for us is twofold. Relationship building is the biggest one. Because that keeps us in tune with what's happening in the industry. Not only can we customize, we can fit some of our grads and let the companies know that we have grads coming out with specific skills. It helps to have them look at our students for hiring when they graduate. We provide them with training requirements for their needs."* ■



Exceeding our expectations, we were able to offer five two-week sessions at three institutions and allow more teenage girls to explore high-tech career options by sharing the exciting world of broadcasting, film, and multi-media with them. With the help of our sponsors we were also able to offer subsidies to almost 90 percent of the participants.

With their creativity flowing and cameras rolling, our participants hit the streets in search of answers to questions that would impress any journalist. They weren't afraid to tackle difficult issues such as gang activities, body image, how Canadians view the recent policies of the American government, foster families, fast foods and animal abuse and capture what they saw and heard on film. With over sixty participants from various culturally and economically diverse backgrounds (60 percent were Aboriginal or new Canadians) completing the program, over 250 people - parents, families, invited guests, media and sponsors - attended the final screening to view first hand the "debut" vehicles of these young filmmakers. (Segments of selected movies will soon be showcased on our website www.wimf.org)

The opportunity to deliver camps at the state-of-the-art college and institute campuses is unique. It gives colleges the opportunity to introduce and showcase their exciting programs to potential students (and parents) from diverse communities in a very real hands-on manner. While this was perhaps one of the most exciting summers for many of our participants learning new skills to produce their first movies, it was the girls' parents who were in some

cases overwhelmed at what two weeks spent at the camp had done for their daughters. Parents said the girls became more focused, their self-esteem grew significantly and most importantly they became driven after learning about the exiting career options they thought were available only to boys! "We feel like we've won the lottery" was how one parent described her family's enthusiasm with the camp.

While not all the participants at the camps will embrace careers towards technology and broadcasting, many of them have told us that they are looking forward to returning to college to further their education. Some of them have already contacted enrolment services for further information.

By 2006, WIMF hopes to find innovative enthusiasts



at colleges in every province and territory to help offer this unique one-of-a-kind program for teenage girls. This exciting new partnership with industry, post secondary, government and community will surely add creativity and diversity to Canada's broadcasting, film and new media industries.

For more information about the WIMF and its programs, please contact Rita Chahal, Executive Director, Women in Media Foundation at 404-160 Princess Street, Winnipeg, Manitoba R3B 1K9 or call Toll Free 1-866-265-0507. ■

team, has become intimately connected to most of the activities which are driving and supporting this massive expansion. The College is seen as a key provider of skilled labour and is flexible and responsive to the changing market conditions. Fast track programs, vendor certification, unique work experience and cooperative programs, as well as alternative delivery systems are just a part of the myriad of responses that Algonquin has made to develop the human resource pool with the skills required to enable the city to continue its growth.

The College is seen as a leader in responding to the challenges of the economy and in being a part of the solution to the human resources challenges facing this City. In point of fact, human resources is the single greatest challenge that this economy faces because without a growing labour pool with an increasingly higher skill set, this economy cannot continue to expand at the present rate. Algonquin College has partnerships with the K-12 system, all levels of government, the business community and the economic agencies to help ensure that each of the partners contributes their strengths to the equation. These partnerships also ensure that the College is seen as ready and willing to support economic development and provide unique solutions to problems in a rapid yet flexible manner.

The College has made its presence felt in all areas of the community as it intends to continue to develop the workforce for the full range of employment opportunities that this community offers. With a strong advisory committee network and tentacles reaching into the furthest reaches of the region, Algonquin is well-positioned to respond quickly to newly identified education and training needs and offers both traditional or customized programming to suit the client's situation.

Algonquin is committed to doing whatever is required to be a full partner in the economic development of the community through labour force development. The College has invested in facilities, equipment and personnel specific to the growth strategy and now mirrors the new economy, embracing change in a way that will allow it to continue to be responsive to an environment which will transform even more dramatically over the next decade. Such a commitment has meant that the College has had to initiate alternative delivery strategies and foster innovative approaches to the introduction of new learning products as well as the phasing out of more mature offerings. It has also meant that while recognizing non-traditional hours of work, the College has embraced the massive opportunities and challenges posed by the Internet and continually seeks to augment internal expertise through external relationships.

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demands of the local economy, the Ferme École Desjardins (Desjardins farm school), has been placed at the disposal of the college. An innovative facility which is locally funded, the Ferme École Desjardins is a valuable asset which enables students to practice large-scale crop and livestock production.

The Terrebonne College, located in the southern sector of Lanaudière, specializes in education and training programs, such as cabinet making and architectural carpentry, which target the region's rapidly developing manufacturing sector. An industrial maintenance program, which will be offered starting in 2001, has also been designed to respond to specific sectoral needs expressed within the Lanaudière region. Economic activity in the sub-region of L'Assomption is largely service-sector based and will be supported by programs focusing on the service functions of the new constituent college. Programs include a cooperative business administration program, with a finance option, and a child care services program.

A regional continuing education service will also be established in four service centres in order to meet the skills updating, upgrading and lifelong learning needs of the area's diverse clientele. Continuing education programs are being developed in cooperation with the community and are based on a flexible management approach. Major construction projects are also planned for all three constituent colleges. Investments in excess of \$7 million are earmarked for the construction of a food processing factory school at the Joliette college while the college in L'Assomption will receive over \$16 million for construction and renovation projects. At the Terrebonne location, construction is set to begin within a few weeks, with a total investment of \$10 million.

Clearly, the creation and development of Cégep régional de Lanaudière was the result of socio-economic, employer and labour market demand and investment. The Cégep is becoming a key regional development partner with its three constituent institutions, each of which is firmly rooted in its community yet works for the benefit of the entire region. The Cégep's administrators and educators are intimately involved in the cultural and economic life of their communities and contribute to regional development through their considerable expertise in creating partnerships and linkages with cultural, economic and social organizations, enterprises and industries throughout Lanaudière. ■

“One of the first challenges was building basic skills in a workforce not trained for this level or type of mining activity”, said Kerry Robinson, Manager of Program Development for Aurora College. This led to the development of the Mine Trades Access Program (Mine TAP), designed in partnership with government and industry groups.

“The purpose of Mine TAP was to bring people up to academic and skill levels needed to pass the trades entrance exam,” Mr. Robinson said. “Once that was accomplished, industries agreed to take on the successful candidates as apprentices.”

Since the launch of that program four years ago, the diamond mining industry has increased its activity to the point where the territorial Minister of Education created a special committee to coordinate training. The Mine Training Committee consists of representatives from industry, government, aboriginal agencies, community groups and private business.

Bob Ward represents Aurora College on the Committee. As Mine Training Coordinator for the College, it is his job to work with various partners to ensure training needs are met.

“The Committee addresses labour market issues relating to mining activities in the NWT,” Mr. Ward explained. “We identify training needs, bring together appropriate partners and draw on various funding sources to deliver training programs.”

Partnership has become a buzzword in education circles in recent years, but in the North, with small populations and limited funding sources, partnerships are vital to the success of training ventures. These partnerships mean programs can be developed and resourced to meet the economic development needs of communities, government and industry.

Some of the recent projects Aurora College has undertaken to support the labour force development for the Diavik Diamond Mine are examples of this approach. Diavik Impact Benefit Agreements state that they will hire local people from the region in and around the territorial capital of Yellowknife. Carpentry, concrete, conveyance and welding training programs have been delivered in various communities in the region, and the results have been extremely successful.

“We are very happy with the success of the programs we have undertaken with the College,” said Tom Hoefler, head of Public Affairs for Diavik Diamond Mines. He added that a key element of this success is the willingness of community groups, government, aboriginal organizations, the private sector and major industries to work together to fund the training and deliver the programs.

“It takes that kind of recipe to succeed,” Mr. Hoefler noted. “Each one of us couldn’t do it alone.” ■

Another example of how we are building on the strengths of the region include the development of new programs that support industries whose rapid growth requires increasing numbers of trained and skilled personnel. This fall, after conducting further labour market research, we introduced a Winery and Viticulture Technician program, developed in close consultation with local, internationally acclaimed wineries and grape growers. The program is enhanced by a newly planted, five-acre teaching and research vineyard, established, again, through generous industry support.

Our School of Business also introduced several new programs. Professional Golf Management will provide workers trained in all facets of golf course operations in support of Niagara’s thriving golf industry, while International Business will equip students with the skills and knowledge to assist local companies, or create new ones, that can succeed on a global scale. The introduction of this popular program reflects and supports regional efforts to encourage and assist Niagara businesses in establishing new international markets – a key strategy for local economic growth.

Not only is the College supporting local economic development efforts through academic programming it is partnering with Niagara Economic and Tourism Corporation (of which I am a proud to serve as a director). We are also a partner with Human Resources Development Canada in *Trade Niagara*, a recent, unique initiative that provides a full range of export development services, including skills development, market research, export counselling and market entry services, to the Niagara Region’s small- and medium-size exporters.

Niagara College has strong partnerships with industry that facilitate the development of the skills pool required by major employers. The region’s auto manufacturing industry has deep roots and continues to play a significant role in the economic health of the region. General Motors (GM) of Canada has long turned to Niagara College for training expertise as it addresses the challenge of constant technological change. Having evolved to the point where Niagara College now provides, on a permanent basis, six training staff on site at GM, the GM-Niagara College partnership provides many mutual benefits. GM receives administrative training expertise that helps it maintain efficient production, while Niagara College gains the knowledge of new technology processes, trends and opportunities to share with faculty, students and graduates.

Just as we contribute to the competitiveness of a company like GM, we are also working to attract and support new, high-tech companies to the Niagara region.

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The knowledge economy, driven by the new technologies, has forever changed our approaches to the delivery of education and training with the growing integration of the traditional and virtual campus experiences. The adjustments have not been without pain. The increasing pace of change continues to make life difficult for many individuals; however, there has never been a better time to be a part of a College that has seen the economic development opportunities that exist and has become fully engaged in their exploration. ■

We provide students and businesses with access to some of the most specialized manufacturing equipment as well as programs that address the short supply of critical skills. A year ago, we opened the Centre for Integrated Manufacturing Training and Applied Research (CIMTAR), made possible by leveraging \$700,000 in support from local industry to acquire a \$1.6 million Strategic Skills grant from the province of Ontario.

CIMTAR's five state-of-the-art labs are home to students in a variety of technology disciplines and provide local employers with applied, commercialization-stage research equipment and development venues that would otherwise not be available in the region. Already, CIMTAR has played a significant role in the development of a revolutionary safety light for emergency vehicles and school buses, which was taken from idea to manufacture in just five months. Another project involves the development of a specialized prosthetic foot. Our prototyping capability, which allows for quick and inexpensive engineering modifications, has enabled the project to advance rapidly and cost-effectively.

The early success of CIMTAR was the key to launching two other initiatives that put Niagara on the technology map. The College secured a second Strategic Skills grant to acquire a \$7 million project to develop programs in the rapidly emerging field of photonics, which utilizes fibre-optic and laser technology. Working in partnership with Algonquin College and Photonics Research Ontario, the project will again enable Niagara to equip students with high-demand skills while providing local industry with access to specialized equipment and services to assist in new product development.

Meanwhile, with the leveraged support from the Canada Foundation of Innovation, we are developing a virtual reality lab, one of only two such facilities in Ontario. The lab will add to an impressive array of facilities, including our microelectronics lab and the Canadian Tire Centre for Technology Innovation, which are dedicated to the success of the high tech sector.

Other partnerships align with strategic program areas and assist the region in achieving growth in targeted sectors. Our strategic alliance with the Niagara Parks Commission, for example, has contributed to the growth and success of our Environmental, Horticulture and Agribusiness programs, which in turn support these vibrant industries.

In summary, Niagara College has established itself as a full partner in the economic future of the Niagara region. We will continue to play a key role in identifying the region's economic goals and priorities and implementing the strategies to ensure that the region reaches its full economic potential. ■