



LAVAL TECHNOPOLE

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The in situ integration of nanotechnologies into the biomedical sector: **A world first**

In June, the Institut national de la recherche scientifique (INRS) announced the coming move of its Energy, Materials and Telecommunications (EMT) research centre, currently located in Varennes, to its Institut Armand-Frappier campus in Laval. This operation, which will involve the construction of a new building, as well as the transfer of equipment and some 300 employees and students, will cost an estimated \$75 million.

During the last few years, the EMT centre has achieved some spectacular advances in the field of nanotechnology, particularly in respect to ultrashort pulse lasers, which have very promising applications in the biomedical sector. Developed as part of the ALLS (Advanced Laser Light Source) project, these tools are extraordinarily powerful and precise. "The arrival of ultrafast, ultrasmall nanotechnologies enables us to anticipate some very interesting biomedical applications in the future," declares Pierre Lapointe, Director General of the INRS.

One of the laser's applications is dynamic in vivo medical imaging. It offers better resolution by far than the imaging techniques that have been used until now. For example, an ultrashort pulse laser can locate tumours in mammary glands that are about 15 times smaller than those that can be detected by mammography.

Moreover, this type of laser can be used as a high-precision surgical instrument. A laser that is smaller and easier to handle than what is used in medical imaging has been developed for corneal surgery. It can cut a diseased cornea with such extreme exactitude that healthy cells are left unaffected, which speeds up a patient's recovery and rehabilitation.

Another application of this laser is proton beam therapy, a variation of radiation treatment. Because it can precisely target cancerous lesions lodged deep within the body, it will make treating brain cancers that have previously remained incurable possible.

Although, during the last 15 years, the EMT centre has succeeded in designing devices that are 1,000 times more powerful and 10 times smaller, the equipment needed to operate ultrashort pulse lasers is still extremely large. The team will have to continue its research into making the technology simpler and easier to use before being able to set it up in hospitals.

Because the EMT centre is increasingly focusing on nanobioscience, its move from Varennes to Laval has become a logical choice.



Photo: INRS

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C.A. Spencer: A hardwood producer with 100-year-old roots

This year, the hardwood producer C.A. Spencer is celebrating its 100th anniversary. To mark the occasion, the centenarian company brought together the some 300 members of its extended family—employees, customers and suppliers—at an event held on June 14.

On that day, guests were able to enjoy a tour of C.A. Spencer's Laval facilities, which include its head office, three warehouses with a total area of 9,570 square metres, a 4,645-square-metre drying yard, and a 2,325-square-metre measuring and lathing plant with state-of-the-art equipment. The company also owns two sawmills, one located in Lachute and the other in Huntingville.

During the evening celebration that followed the tour, C.A. Spencer management recounted the events that have marked the concern's 100-year history. Founded in 1908 par Charles Allen Spencer, the company then mainly traded in softwood, bringing it in from the Canadian West to sell in Eastern Canada. In 1920, it opened a sawmill in the Laurentians, which it operated until 1929, when the arrival of the Great Depression forced its closure. After

establishing a lumberyard in Montreal at the beginning of the 1940s, Mr. Spencer was joined in the business by his son Colin in 1948. Colin Spencer became president of the company and moved its facilities to Laval in 1967. A few years later, he had a warehouse and drying yard built, and the company acquired a sawmill.

Rémi Cadrin joined C.A. Spencer as a partner in 1977. During the 1980s, the company continued to expand, but cautiously, given the less-than-buoyant economic conditions of that time. It had a second warehouse built on a newly purchased lot and bought a second sawmill. In 1989, Colin Spencer stepped down and Rémi Cadrin became president.

The 1990s saw the construction of two measuring lines, a lathing line and three drying kilns. In 1997, Rémi Cadrin turned over the presidency to Claude Cadrin who, along with his cousins Pierre Cadrin and Michel Ferron, purchased all C.A. Spencer shares. During recent years, the company has mainly focused on updating its equipment and automating its processes.

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"The transfer of the EMT centre is strategic in that research professors and students will be able to take advantage of the INRS—Institut Armand-Frappier's specialized human, animal and environmental health infrastructure and services," notes Mr. Lapointe. In addition, the EMT centre will neighbour many companies specializing in biopharmaceutics and biotechnology, which will facilitate knowledge transfer, partnerships, spinoffs and all kinds of other exchanges.

The new nanotechnology building, whose construction should be completed in 2010, will have four floors and an area of approximately 11,150 square metres. Its architecture will reflect current trends for high-technology buildings, which are designed with two separate parts connected by walkways and a glass structure. All the building's areas will therefore be filled with light, creating a welcoming environment that will be sure to inspire. In addition to the well-being of the staff, the building's design must take into consideration the distinctive nature of the research that will be conducted there, which necessitates mechanical control of such variables as dust levels, temperature, humidity, and so on.

The arrival of the EMT centre on the Institut Armand-Frappier campus will mean the transfer of more than 300 researchers, employees and students, which will double the number of people on

the site. Moving equipment that is estimated to be worth \$80 million will require meticulous planning, as much of it will have to be carefully dismantled and handled, and then reinstalled and reconfigured on the new site.

Construction on the centre should begin once the Quebec and Canadian governments have confirmed their financial support. "Bringing research professors from the fields of physics, chemistry and biology together to work on the same site will be a world first. By doing this, the City of Biotechnology and Human Health of Metropolitan Montreal, of which the INRS—Institut Armand-Frappier is a part, will secure its leadership and increase its influence internationally," concludes Mr. Lapointe.

INRS
Université d'avant-garde

To learn more about the INRS, please contact Pierre Lapointe, Director General, at 450 686-5437, or visit the institute's Web site: www.inrs.ca.



Pierre Cadrin, Vice-President, Sales, explains that the key to the company's longevity has been the integrity of its relations with all stakeholders. "The quality of our relationships, whether with employees, suppliers or customers, is one of the key ingredients in our recipe for success. You have to make sure that everyone is happy and gets what they need." Integrity therefore means that the company must keep its promises in respect to its customers by providing products that both meet their needs and the highest standards for quality. In order to be able to supply such products, employees have to be able to count on good working conditions and fair wages. As for relationships with suppliers, transparency is a must.

"Adaptability is another important factor for success," confides Mr. Cadrin. A company has to be on the lookout for technological advances, stay on top of market conditions, and be prepared for changes in, among other things, economic, environmental and legislative trends. In one century, C.A. Spencer has seen two world wars, experienced a number of severe economic downturns, first mechanized, then automated and computerized its processes, changed its production standards in order to comply with various

In the short and medium term, C.A. Spencer expects that it will have to face two major challenges. The first will be in respect to employee turnover. It seems that increasingly fewer young people are interested in forestry industry trades. The company works closely with the Duchesnay Forestry School, but there are not enough graduates to meet its needs. "The solution partly lies in technological innovations that will maximize the processing of the resource without human intervention, while at the same time improve productivity and, in fact, we have invested more than \$15 million in this connection over the last seven years," states Mr. Cadrin.

The company's second challenge will consist of developing exports to emerging international markets. C.A. Spencer's traditional markets have been the United States and Europe. In the last few years, however, it has strengthened its presence in Asia, particularly in China, where the company has opened an office in Beijing. As Pierre Cadrin explains, "You have to be very well connected in order to make sure you are on the right track, since everything is moving extremely fast."

We wager that C.A. Spencer will be able to overcome these challenges and meet new ones... 100 years from now!



First row, from left to right:
Michel Ferron, Claude Cadrin, Pierre Cadrin
 Second row, from left to right:
**Liang Lin, Jean Désilets, Serge Robichaud,
 Denis Laforge, Philippe Bédard, Réjean Allard**

laws, dealt with the ups and downs of the Canadian dollar, set out on the path to globalization... "It doesn't matter that we are 100 years old, we have never had the time to rest on our laurels!" jokes Mr. Cadrin.

For further information about C.A. Spencer, please contact Pierre Cadrin, Vice-President, Sales, at 450 622-2420, or visit the company's Web site: www.caspcencer.ca.



A solid year in 2007 fuelled by industrial and residential investment

Laval recorded investments of \$1,512,462,353 in 2007. The industrial and residential sectors were the engines of growth in this last year of solid economic performance.

Industrial investments

Industrial investments reached \$624.6 million, an increase of 12% over 2006, and 2,040 new jobs were created as a result. New industrial companies accounted for \$83 million of the total amount and for 375 jobs.

There were 575 expansion projects in 2007, valued at \$541.5 million. This figure represents an increase of 15% over the previous year and 86% of the total investments announced in 2007. These projects created 1,665 jobs, 82% of all the industrial jobs created in 2007.

Residential sector: 2,883 units built in 2007

Residential construction was up 9% in 2007, with 2,883 starts, versus 2,643 in 2006. These solid numbers are not far off the 2004-2005 peaks.

Single-family homes are still the most popular type of housing, with 1,379 starts in 2007, or 47.8% of all new residential construction. In this category, detached homes account for most of the demand, representing 85% of all housing starts. The last two years have seen renewed interest in triplexes, whose number has doubled to over 400 units per year.

The total declared value of residential construction permits was up 18.9% over 2006 to \$574.1 million, accounting for 74.8% of new construction in Laval.

Construction permits for single-family homes were in greatest demand, with a declared value of \$380.3 million or 24.3% higher than in 2006. The average price for a new single-family home continues to rise, reaching \$275,000 in 2007, for an 11% increase over the previous year. The price of duplexes and triplexes also rose, to an average of \$127,500 per unit, while the unit price of multiple-family dwellings has remained fairly constant since 2005.

TOTAL INVESTMENTS, CITY OF LAVAL, 2007

Sector	Investments	%	Comments
Industrial	\$624,577,958	41.2%	594 projects
Commercial	\$160,691,193	10.6%	340 projects
Institutional	\$95,751,306	6.4%	62 projects
Residential	\$631,441,896	41.8%	2,963 permits issued
Total	\$1,512,462,353	100%	

BREAKDOWN OF INDUSTRIAL INVESTMENTS,

Type of Investment	Amount
Land	\$27,396,258
Buildings	\$152,228,912
Equipment	\$125,990,070
R&D	\$307,176,364
Training	\$11,786,354
Total	\$624,577,958



Laval investment report

A vibrant, changing workforce

Laval's population expanded by 1.3% in 2007, to 381,651. In 2006, the City accounted for 4.9% of Quebec's population.

Demographic growth is a key factor for economic growth, and the 30% increase in Laval's population since 1986 explains the City's development since that time.

A number of Laval's labour market indicators showed significant improvement in 2007. For example, the workforce grew by 8.7% or 17,600 people, pushing up the participation rate from 66.1% to 70.8% and placing Laval ahead of all the regions of Quebec in this regard. This rate is also 5.2% and 3.1% higher, respectively, than the Quebec and Canadian rates. At 66.8%, Laval also has the highest employment rate in the province.

Moreover, unemployment fell from 7% in 2006 to 5.6% in 2007. Unemployment is 2.9% lower than on the Island of Montreal (8.5%), 1.2% lower than in Quebec (6.8%) and 0.3% lower than in Canada (5.9%).

According to Statistics Canada, approximately 140,000 people were employed in Laval in 2007.

CITY OF LAVAL, 2007

%
4.4%
24.4%
20%
49.3%
1.9%
100%

Couche-Tard launches Couche-Tard Menu

Couche-Tard continues to respond to consumer demand with its introduction of Couche-Tard Menu stores. With their bright and welcoming self-service environment, these stores feature not only the traditional products they are known for, but also a vast range of brand-name prepared meals, warm pastries, and a selection of the best specialty coffees, freshly brewed.

Customers will be treated to a wide variety of foods: sushi, hearty soups, mousses, salads, smoothies, upscale Asian and Italian dishes, pizzas, pasta sauces, lasagna, wraps, breakfast sandwiches, fajitas, sorbets, pâtés, yogurts, low-calorie meals, desserts, Viennese pastries, cappuccinos, espressos, lattes, and more.

Couche-Tard Menu stores have been organized around a central counter. They include a section with standard Couche-Tard products, as well as one with ready-to-eat products. A food adviser in each store is available to help customers with their selections while ensuring that the products offered meet Couche-Tard's rigorous quality and freshness criteria. This unique concept is aimed at responding to the lifestyles of customers who seek high-quality, ready-to-eat foods at prices competitive with those in super-markets.

"Innovation is at the heart of our new offer," explains Michel Bernard, Vice-President of Eastern Canada Operations for Couche-Tard. "We are proud to provide our many loyal customers with practical solutions in the form of exclusive, innovative products, more than 80% of which come from Quebec. Customers can take advantage of this new service at any time of the day, whether they are picking up lunch close to their workplace or dinner on their way home."

Couche-Tard has spent \$2 million renovating stores in order to implement its new concept, and the model is initially being launched in eight stores in the Greater Montreal Area. This strategy will help ensure that the Couche-Tard management team at the company's head office in Laval immediately receives customer comments and suggestions, enabling any necessary improvements to be made before the progressive integration of the concept into more stores in the Couche-Tard network.



For further information about Couche-Tard Menu, please contact Denise Deveau, Media Relations, at 514 762-9889 or visit the company's Web site: www.couche-tard.com.



A specially designed insurance program for Laval's technology companies

How would your customers react if one of your products or services caused them a financial loss or drop in productivity, or resulted in additional expenses? If you simply lost some of their strategic data? What about the consequences of the unlawful use of their intellectual property rights, copyrights, trademarks or trade secrets (confidential information that has a commercial value)? What would the financial repercussions be of a delay in your carrying out a contract?

Should any of these situations occur, your company could face legal proceedings and risk financial losses that might threaten, if not jeopardize, its survival. It is therefore imperative to make a thorough evaluation of the kinds and levels of risk your company's operations expose it to, to put in place a series of measures that will reduce such risks, and to cover any other risks inherent to your particular line of business with an appropriate insurance program.

GPL Assurance has developed a general insurance program that has been specifically designed for Laval's e-POLE technology companies, including:

- Electronic equipment manufacturers
- Multimedia companies
- Information technology companies

This program offers various **coverage options for assets** (movable and fixed), **loss of company revenues**, **general civil liability** and **professional liability** (errors and omissions).

"Laval has a large pool of high-technology companies, which has enabled us to negotiate bulk discounts with a reliable insurance company that has a long track record in this industry. GPL has therefore been able to develop a program of coverage that might sometimes be unavailable to such companies on an individual basis," explains Robert Talbot, Assistant Vice-President at GPL and manager of its principal portfolio.

"We carry out an analysis for each company that allows us to evaluate the nature and extent of their risks. We then propose customized solutions that minimize such risks and transfer those that the company does not want to assume to the insurance company," declares Mr. Talbot.

In business for 40 years, GPL Assurance is an independent agency that has wide experience in insurance for companies in the high-technology field.

GPL
assurance inc.

To know more about GPL Assurance or the insurance program designed for e-POLE companies, please contact Robert Talbot, Assistant Vice-President and Principal Portfolio Manager, at 450 781-2093.



Recycling your fridge pays!

Recyclage ÉcoSolutions, along with Marcon and Roy Livraison spécialisée, are part of MRE Environnement, a consortium set up following a call for tenders from Hydro-Québec to run the Recyc-Frigo program, which promotes the recycling of old, power-hungry refrigerators and freezers. The three partner companies together invested more than \$10 million in order to set up and operate this major energy-saving initiative.

Automating the consortium's appliance recovery plant in Laval alone required an investment of \$7 million. ÉcoSolutions was able to put together the necessary financing thanks in particular to the support of Laval's CLD (Local Development Centre) and LAVAL TECHNOPOLE, both of which worked to heighten awareness about the project among its various stakeholders. One of these included Investissement Québec, which not only acted as a guarantor for part of a loan the consortium obtained from a major financial institution, but also provided it with a grant of capital through its Regional Economic Intervention Fund (FIER).

The upgrading of the 5,575-square-metre plant should be completed by the end of July. At the moment, 30 employees take care of the plant's operations, but once it starts running at full capacity, 15 to 25 new positions will be created.

Collection of refrigerators and freezers began last April 1. All Quebec residents can take advantage of the program's free pickup of such energy-guzzling appliances, if they are more than 10 years old, as well as receive an incentive payment of \$60 by mail for each appliance recovered. The program will be in effect for three years and targets the recycling of 230,000 appliances. According to the president of ÉcoSolutions, Alain Boisvert, however, this goal will be achieved well before December 31, 2010, the program's end date. As he says, "We believe that we will be able to recycle more than 300,000 refrigerators and freezers. Our appointment centre is receiving many more calls than we anticipated—as high as 22,000 calls in a single week in April! Already, just two months after the launch of the program, we have recovered approximately 12,000 appliances. It should also be mentioned that, in Quebec, between 300,000 and 400,000 of these appliances are replaced every year."

While Marcon is responsible for managing customer service and sending out the incentive payment cheques, Roy Livraison spécialisée takes care of pickups and ÉcoSolutions the dismantling of the appliances and the recovery or recycling of their components. The process is already running smoothly. Once an order for pickup has been noted, a number is given to the refrigerator or freezer to be collected. When it arrives at the plant

for dismantling, the appliance's features (brand, model, year of manufacture, type of coolant, etc.) are identified and recorded in a data bank, which will later enable Hydro-Québec to calculate the energy savings achieved.

Following that, the actual dismantling process begins. First, all the moving parts—shelves, crispers, doors, handles, etc.—are removed. These represent 80% of the appliance's total weight and are made of plastics and metals (iron and others) for which there are many recyclers. Tempered glass parts are ground into a powder to be used in sandblasting. Next, the refrigerating fluid is removed and heated in order to separate its oil and freon. The oil then goes down the oil recovery line. If the coolant is of a type that is considered harmful to the Earth's ozone layer, it will be chemically destroyed; if not, its quality will be improved to make it suitable for reuse in the refrigeration market. Other components, for example, the drop of mercury contained in the switch and the PCBs in some condensers, that cannot be recycled are destroyed in an environmentally friendly manner. As for any foam insulation, it is recovered once its CFC contaminants have been removed. "We manage to recycle more than 95% of the materials in the appliance," Mr. Boisvert proudly explains. "Plus, we have accomplished a real innovation in terms of the decontamination of oil and foam insulation, which other companies of our type do not do."

Alain Boisvert is more than enthusiastic about this project, so much so that he counts on opening three to five plants of the same kind during the next five years. "The ÉcoSolutions plant is the first of its type in the Americas," he points out. "We want to take the concept to other areas in Canada and the United States. Thanks to Hydro-Québec's Recyc-Frigo program, we will be in a position to develop this market and transfer our expertise to other regions." ÉcoSolutions plans on continuing to offer the same type of service when the Recyc-Frigo program ends. Mr. Boisvert believes consumers will, by that time, have become used to sending their old fridges out for recycling, which will in part ensure the sustainability of this new sector. Moreover, it is clear that Quebecers increasingly recognize the importance of reducing their environmental footprint.



For further information about the Recyc-Frigo program, please visit its Web site: www.recyc-frigo.com.



The rebirth of Neurochem

The first months of 2008 have seen, to say the least, a whirlwind of activity at Neurochem. Not only did the company announce the change of its legal name to BELLUS Health, the creation of a new subsidiary, OVOS Natural Health, and the coming marketing of OVOS' VIVIMIND™ product, but also the launch of a second Phase III clinical trial for its pharmaceutical eprodisate (KIACTA™).

Neurochem decided to adopt a new corporate name that would better reflect the range of its activities. Previously exclusively focused on the research and development of therapies for neurological disorders and certain so-called "orphan" diseases, Neurochem has broadened its field of investigation to now include a nutraceutical component.

The nutraceuticals developed by BELLUS Health will be marketed by its wholly owned subsidiary OVOS Natural Health. "Nutraceuticals are products that have been developed using bioactive compounds found in natural materials," explains Lise Hébert, Vice-President, Corporate Communications at BELLUS Health.

VIVIMIND™ will be the first product launched by OVOS Natural Health. It is the result of 15 years' research on homotaurine, a substance usually found in algae. "Clinical trials conducted among more than 2,000 people in Canada, the United States and Europe have provided scientific proof that VIVIMIND™, a synthetic form of homotaurine, can help protect memory function. The product preserves the brain's structure, as well as aids in maintaining verbal abilities and comprehension capacities, in addition to fostering neuron health," adds Ms. Hébert.

In parallel with its nutraceutical-focused activities, BELLUS Health is continuing to develop pharmaceutical therapies. In the fall of 2008, a second Phase III clinical trial of eprodisate (KIACTA™) will begin in co-operation with the U.S. Food and Drug Administration (FDA) and the European Medicines Agency (EMA). Eprodisate (KIACTATM) is designed to treat amyloid A amyloidosis, a rare disease that attacks the kidney function and often leads to death.



In the medium term, BELLUS Health intends to widen its product offering by targeting disorders for which no known treatment currently exists, in accordance with its mission to address critical unmet medical needs. Its Swiss subsidiary is responsible for the international marketing of its products. At the present time, the group has approximately 130 employees.



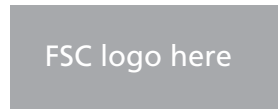
To find out more about BELLUS Health and its subsidiary, OVOS Natural Health, please contact Ms. Lise Hébert, Vice-President, Corporate Communications, at 450 680-4570, or visit the company's Web site: www.bellushealth.com.



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SUMMER 2008
ECONOMIC NEWSLETTER
PUBLISHED BY



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