



LAVAL TECHNOPOLE

E C O N O M I C N E W S L E T T E R

BIOPOLE | e-POLE | AGROPOLE | INDUSTRIAL POLE | TOURISM

Choral singing will have a podium in Laval

Work will soon be launched on the new Podium complex, the brain-child of Gregory Charles, who sees it as a centre for choral singing and the performing arts. This innovative and ambitious project will enable various public and private organizations to join together in promoting the centre, which is sure to become a hub of economic, cultural and educational activities. To be built near the Maison des arts de Laval and Collège Montmorency, the complex will involve an investment of \$8.5 million.

Podium's three-storey, approximately 2,700-square-metre building will include rehearsal halls and classrooms for choral singing and performing arts (mainly dance and theatre) activities on the first and second floors, while the third floor will feature a multipurpose 700-seat auditorium. Particular attention will be paid to ensuring that all these facilities have outstanding acoustics.

However, Podium is, first and foremost, the dream come true of multitalented performer Gregory Charles. A true believer in the importance of community education, for many years he has directed the some 400 voices making up the Les Petits Chanteurs de Laval, Les Voix Boréales and Le Collège Vocal de Laval choirs. In 2005, he organized the Loto-Québec World Choral Festival, which every summer since then has presented dozens of shows both outdoors and in the churches of Laval. Podium simply tops this performer's long list of achievements in the choral field. "In a way it will be a hub for the World Choral Festival and Laval choirs, as well as for people of all ages and musical experience who are interested in choral singing. We are even planning to offer a cultural education program with history and language courses," reveals Mr. Charles.

One of the project's partners, Collège Montmorency, also plans on using Podium's facilities to hold classes. A partnership agreement with the complex's developer, Le Collège Vocal de Laval, will enable it to set up a college-level program in choral singing. "Podium will be built on land belonging to Collège Montmorency, with which we have signed a 30-year emphyteutic lease. This means that Podium will revert to the community at the end of that time," explains Gregory Charles. From that viewpoint, Podium is a true public-private partnership, as is its financing, which comes in part from the City of Laval, the Conférence régionale des élus de Laval, and Le Collège Vocal de Laval, its developer. It is also receiving support from Collège Montmorency and various private investors. In addition, Podium's users will hail from many different worlds—the immediate community, the college, even from abroad—bearing out the public-private status of this cultural showplace.



Photo: OSA IMAGES

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In fact, Gregory Charles' vision for Podium is hardly limited to Laval. The performer dreams of being able to welcome musicians and music lovers from throughout the world thanks to imaginatively eclectic programming, the best teachers from Québec and abroad, and an educational offer of international calibre. According to its originator, Podium is a sound project without its equal anywhere in Québec, and will create a cultural and tourist centre that fits in perfectly with Laval's family and cultural policies. As Mr. Charles says, "Laval has the drawing power that encourages the development of projects like this. Both the community as a whole and decision makers understand just how important an asset such a resource can be for the city." It should also be noted that the project is part of the cultural component of the Laval recreational tourism strategic development plan drawn up by **LAVAL TECHNOPOLE**, which aims to strengthen the city's positioning as the choral singing capital of Canada.

Gregory Charles believes that Podium will succeed in attracting some 1,500 students annually by the end of its second year of operation. However, we will have to wait until fall 2010 before we hear any voices lifted in song.

**COLLEGE
VOCAL**

PODIUM

For further information about Podium, please contact Geneviève Dutil, Communications Manager, at 514 935-9229, ext. 227, or by sending an e-mail to: gduutil@gregorycharles.com.

BIOQuébec is now a part of the Biotech City

On January 1, 2010, BIOQuébec moved its offices to the Québec Biotechnology Innovation Centre (QBIC) in Laval. For Mario Lebrun, Executive Director of BIOQuébec, the new location in the heart of the Biotech City is a strategic choice related to the association's mission, which is to represent and promote the economic interests of companies in the biopharmaceutical industry. As he points out, "a number of BIOQuébec member companies are already located in the Biotech City. We wanted to make sure we were near them, as well as become part of a business environment that would contribute to their growth."

BIOQuébec is a biotechnology and life sciences industry association representing more than 150 member companies and R&D centres in Québec. The association works to develop a business environment that will encourage the growth of the life sciences industry through fostering access to capital as well as development and commercialization partners, workforce development, and a competitive regulatory and fiscal framework, in addition to promoting its members both here in Québec and internationally.



To learn more about BIOQuébec, dial 450 781-3965, or visit its Web site: www.bioquebec.com.



AES Chemunex Canada has something quite special in its kit

In 2007 AES Chemunex, a French company specializing in the design, manufacture and distribution of laboratory tests and instruments, acquired the production and marketing rights for foodborne and environmental pathogens detection kits from Warnex Pharma, another Laval company. As it wanted to continue manufacturing these kits in the dollar zone, AES Chemunex decided to set up the offices of the division handling its new line in the place where the expertise to produce the kits could be found—that is, in Laval. Thus, the Laval Biotechnology Development Centre (LBDC), located in the heart of the Biotech City, became home in June 2009 to AES Chemunex Canada's eight employees, who have busied themselves producing what they commonly refer to as their "PCR detection kit."

The flagship product of the new Canadian division is mainly designed for agri-food companies that must submit samples of their products for safety testing, but is also intended for use by laboratories offering analysis services and, to a lesser extent, those conducting R&D. The kit makes it possible to carry out simultaneous testing for a number of pathogens such as *Salmonella*, *Listeria*, *E. coli* and *Campylobacter* by detecting their DNA. "Our kits enable test results to be obtained within 24 to 48 hours," declares Christian Matte, Managing Director of AES Chemunex Canada, whereas traditional laboratory testing usually requires from one to two weeks." This means increased effectiveness and flexibility, as well as reliability, for users, since the AES Chemunex tests use a dual DNA recognition system.

The Canadian division is therefore producing a premium product with a very specific niche. In just a short time, it has managed to position itself in Canada, Europe and the United States, areas for which it has the necessary regulatory approvals from local health authorities and where it achieves, respectively, approximately 35%,



A foodborne pathogen PCR kit, produced in Laval.

50% and 15% of its sales, which had already reached a total of \$1.1 million in 2009. Furthermore, the division's managing director thoroughly expects those sales figures to increase significantly in 2010–2011 with the arrival on the market of a new testing platform.

At the same time as it is producing the kits, in order to grow its market share AES Chemunex Canada is working on expanding the range of the pathogens they can detect, as well as developing quantification testing, rather than just presence-absence tests (meaning an either positive or negative result), as is currently the case. "Our development strategy is to offer products that meet specific needs in niche markets that the giants of the industry are as yet not paying much attention to, because, in the end, we are still a small player . . ." admits Mr. Matte.

However, AES Chemunex Canada does intend to grow. In fact, it is aiming to double its sales volume while remaining at its LBDC location, before possibly having its own production facility built. As Mr. Matte mentions, "the LBDC provides the infrastructure that is ideal for developing companies such as ours. It is a turnkey centre, which means that it gives us access to laboratories and equipment that, given their high cost, would otherwise be beyond the means of young companies in our sector of the industry."



Christian Matte, Managing Director of AES Chemunex Canada.



To learn more about AES Chemunex Canada, please contact Christian Matte, Managing Director, at 450 682-4970, ext. 201, or visit the company's Web site: www.aeschemunex.com.



Plants in all their forms

The very least that can be said about Yves Vaillancourt is that he has the green thumb that runs in his family! Along with his cousin Richard, this impassioned horticulturalist heads Ferme Vaillancourt, a family business that has been growing fruits, vegetables and annual flowers on its Perron Avenue land for six generations! He has also developed a line of artisanal food products—mainly jams and ketchups—sold at the farm’s stand under the brand name Les délices d’Agathe. Moreover, for the past ten years Mr. Vaillancourt has grown a wide variety of plants to use for his other great passion, mosaiculture.

Ferme Vaillancourt’s history began 185 years ago, when a farm couple settled in Auteuil. From generation to generation, the Vaillancourt family has strived to preserve the agricultural nature of its land and, up until today, it has succeeded! Not only has the family been able to maintain its farm while around it a city that would become known, following the 1965 merger, as Laval grew over all of Île Jésus, but it has also implemented measures to protect the environment. “Eating organic food is not enough alone to be “green”—you also have to make sure you buy locally,” considers Mr. Vaillancourt, whose farm is a member of the Fermes en ville network, an agri-environmental advisory association advocating sustainable development for farms through environmentally friendly practices.

From spring to fall, therefore, area residents can go to the Vaillancourt cousins’ farm and enjoy picking their own strawberries, raspberries, tomatoes and peppers, as well as take advantage of their visit to buy blueberries, pumpkins, vegetables, sweet corn and annual flowers, as well as herb seedlings to plant at home.

Actually, it was growing annuals that lead to Yves Vaillancourt’s involvement in Mosaiculture International of Montréal (MIM). A supplier of plants for the 2000, 2001 and 2003 editions held in Montreal, the budding artist was entrusted with the setting up and planting of the Beijing work that figured in the 2003 Mosaiculture International. “It should be noted that the concept of mosaiculture is not new. Originally, in various European parks and gardens in the late 19th century, mosaiculture appeared as a type of 2-D picture made out of plants. MIM introduced 3-D mosaiculture, then very popular in China, to Québec in 2000, during the first international competition to take place in Montreal,” explains Mr. Vaillancourt.

As MIM’s chief horticulturalist, Yves Vaillancourt supervised the setting up of the works—which won the Grand Honorary International Award and the People’s Choice Grand Prize, respectively—that represented Montreal at the Mosaiculture International held in Shanghai in 2006, and then in Hamamatsu, Japan last fall. The work shown in Japan was entitled *The Man Who Planted Trees*, which took its inspiration from the animated film of the same name by Frédéric Back. Visitors to the exhibition chose the Montreal work to honour among those from over 90 cities, regions and provinces or states located in 25 countries. That particular large-scale horticultural mosaic, which included 12 separate pieces spread over 2,000 square metres, necessitated more than a year’s worth of preparation, 200,000 plants and flowers, and 240 maple trees.

Ferme d’Auteuil grows all the plants used to cover the metal trellis structures at the base of these works. There are no limits to the exhibits that can be created, other than those of their designers’ imaginations... and their knowledge of horticulture, which the internationally renowned Mr. Vaillancourt certainly does not lack.

Furthermore, his expertise has been put to beautiful use around the world. He has been involved in the creation and tending of the many mosaiculture works on display in the conservatory of the Bellagio Hotel in Las Vegas. Numerous organizations, including cities and other hotels, have also called upon his services to provide them with mosaicultures. Among his other projects during recent years, for example, has been the creation of the eagle that adorns the entrance to Nice, France’s City Hall.



One of the Bellagio Hotel conservatory’s mosaiculture works.



Mr. Vaillancourt's work, however, is not confined simply to making floral sculptures. With sustainable development always in mind, he provides training on how to take care of mosaicultures so that they become truly permanent horticultural features. Knowing how to properly prune, irrigate and fertilize forms only part of the expertise needed to preserve these living sculptures. "If the works have to be dismantled, as is the case following an exhibition, we try to salvage the plants for other uses, like we did in Japan, where the 240 maple trees were donated to schools," points out Mr. Vaillancourt.

A number of projects are in the works for Ferme d'Auteuil, several of which are sprouting right now here in Québec and in Asia, as well as in the Middle East. For its part, Ferme Vaillancourt is planning to set up agricultural tourism activities in the very near future to heighten its visitors' awareness of various aspects of sustainable development.



For further information about Ferme Vaillancourt and Ferme d'Auteuil, please contact Yves Vaillancourt at 450 625-8852, or visit the farms' Web site: www.fermedauteuil.com.

Tell us what you are doing...

... and we will talk about it in a future edition of our Economic Newsletter! If you have made a noteworthy investment, opened a branch abroad, expanded your plant, bought out a competitor, entered a new market, substantially increased your revenues, developed a new line of products, received a prestigious award from your peers or obtained an important certification, LAVAL TECHNOPOLE wants to know about it! Just get in touch with us at info@lavaltechnopole.com, and you could see a profile of your company published in our next issue!

LAVAL TECHNOPOLE will be responsible for writing the article, and reserves the right to publish your news or not. This is a free service.



Camfil Farr re-engineers

Camfil Farr, a filter technology specialist, embarked upon a major restructuring of its North American business processes. At the end of that re-engineering initiative, it decided to concentrate more of its operations, especially those connected to its railroad filtration division, in Laval. The company's Laval plant, which mainly produces specialized filtration products, employs close to 200 people and recently filled 17 new positions. Since the restructuring, the plant has increased its focus on the research and development of products that more effectively meet the filtration needs of the railroad industry.

A few years ago, this Swedish multinational set about optimizing operations in terms of its Laval production, which includes HVAC, railroad and gas turbine product lines, to name just a few. As a result, in 2006 Camfil Farr employees there made a significant change in culture by adopting the principles of lean manufacturing, a management philosophy that promotes results through continuous improvement and the elimination of waste, whether it be in terms of materials, inventory, processes or tasks. Of course, the railroad division was not exempted from this corporate re-engineering. In 2008, after having worked for Camfil Farr abroad for three years, Steve Leduc returned to Canada to take over from his predecessor as president of Camfil Farr (Canada). His mandate: to continue the optimization of the company's operations worldwide. Scattered throughout Canada, the United States and Mexico, its research and development, manufacturing and materials handling activities demonstrated strong potential for such optimization. The senior management team thus proposed putting all of the company's railroad-related operations under the same roof in Laval to make it a centre of excellence with the mission of maximizing Camfil Farr's efficiency and positioning it as the undisputed world leader in the field of railroad industry filtration.

In order to achieve this goal, Camfil Farr hired a director of research and development who was responsible for devising more effective new filters. The new employee, however, lived in France. "The Centre local de développement (CLD) de Laval was a great help to us in facilitating and speeding up the administrative procedures needing to be followed for Mr. George's immigration and making his and his family's integration into the Laval community easier," declares Mr. Leduc. As a result, during 2010 the Laval plant will become equipped with a laboratory directed by Mr. George, who in his turn will hire two other engineers.

Camfil Farr also hired a director of international business development at the beginning of 2009. The latter has since brought increased attention to the Laval plant's products on the other side of the world, and signed various international representation and distribution agreements that should bear fruit in 2010.

However, it is not enough to concentrate the operations of one particular sector in a given place in order to make it an international centre of excellence. There also has to be an appropriate socio-economic and political situation. "During the last few decades in North America, trucking has gained in popularity, at the expense of rail transportation," notes Mr. Leduc. "Today, however, roads are becoming more and more congested and the price of gas is



Camfil Farr's Canadian head office.

continually mounting. At the same time, there is increasing promotion of public transport. For example, President Obama recently announced that massive investments would be made in high-speed trains, which reopened the discussions concerning them on this side of the border. I believe that economic conditions will favour the railroad industry in less than 10 years. Camfil Farr is being proactive by preparing for that time."

Even if only in terms of the environment, rail transportation does indeed seem to be the solution for the future. Trains provide a very efficient method for transporting goods, using about 10 times less fuel than heavy trucks to ship the same weight over the same distance.¹ Furthermore, less fuel consumption also means fewer CO₂ emissions. Camfil Farr is therefore committing itself to sustainable development by focusing on developing highly effective filters for the railroad transportation industry.

But that commitment does not stop there. In line with its shift to lean management, Camfil Farr aims to eliminate all waste—and not only those wasteful practices that might hamper productivity and performance. With the enthusiastic support of employees, senior management has introduced various initiatives reflecting the principles of reducing, reusing and recycling waste. Improvements have been made to much of its equipment to ensure it consumes less energy, and there are many places throughout the Laval plant where paper, cans, batteries, clothing, neon tubes and old cellphones can be left for recycling. In fact, employees hope to see their efforts in this area rewarded by the Recyc-Québec certification granted by the Ministère du Développement durable, de l'Environnement et des Parcs.

To sum up, thanks to the drive and energy of its Laval employees, Camfil Farr (Canada) is strengthening its leading position in the field of filtration.



For further information about Camfil Farr, please contact Mireille Lefort at 450 629-3030, or visit the company's Web site: www.camfilfarr.com.

¹ Source: http://en.wikipedia.org/wiki/Fuel_efficiency_in_transportation



Organic Laval

Did you know Laval was one of the first Québec municipalities to implement three-stream waste collection, that is, of household waste, recyclables and organic matter? In fact, a pilot project to collect organic waste was set up among 1,500 households in the Champfleury neighbourhood in December 1996 and, since that initiative proved to be a tremendous success, the service was expanded to 6,500 households. Treating such waste makes it possible to make compost, a natural agricultural fertilizer. Since 2004, the City of Laval has been working on a more ambitious project: extending the collection of organic waste across the entire island and building a biomethanization and composting plant that would enable the conversion of 110,000 tonnes of decomposable waste and municipal wastewater sludge annually. This green project, which it is estimated will cost \$121.3 million, including \$14 million for the acquisition, distribution and maintenance of roll-out containers, has now become possible, due to the announcement of provincial and federal government subsidies that will cover two thirds of the expenditures required to set up the necessary facilities, with the balance to be assumed by the City.

"This is great news," exclaims André Giroux, engineer and professional solid waste advisor in the City of Laval's Environment Department, "because this project will really pay off from both a financial and environmental standpoint!" It is a fact that the cost of treating organic waste can be well-nigh prohibitive. It currently costs approximately \$50 per tonne to bury waste, a price that includes fees, taxes and transportation. In contrast, the conversion of organic waste costs an estimated \$120 per tonne because of the expense involved in setting up the needed facilities, among other things. The government subsidies will therefore enable the City to take the organic route for the same price.

"However, the best thing about this project is the impact it will have on the environment," considers Mr. Giroux. "It will help reduce greenhouse gas emissions in two ways. First, it will cut down on the amount of transportation used to take the 160,000 tonnes of residential waste collected annually to the Lachenaie technical landfill site (TLS), since we will be treating it right here in Laval. Secondly, the new plant will allow us to recover 100% of the methane released by the decomposition of waste. Methane is a greenhouse

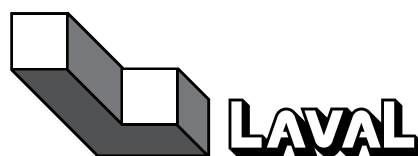
gas that is 21 times more powerful than CO₂, and it is not always able to be fully harnessed in landfill sites." To this can be added the fact that a decomposable waste conversion plant makes it possible to prolong the useful life of TLSs and reduce the annoyances due to smell and noise in the areas in their vicinity.

The City will also offer the industrial, commercial and institutional sectors the opportunity of using these facilities at a more economical rate than sending waste to a landfill, which will allow the plant to treat an additional 25,000 tonnes of decomposable waste. Moreover, it will also handle the 45,000 tonnes of wastewater sludge discharged by Laval's three water treatment plants. At the moment, 60% of this sludge is dried in natural gas-fired ovens, which transforms it into pellets that are then sold to a cement factory that uses them as fuel; the remaining unusable sludge is buried in a landfill. With the new plant, however, this sludge will be able to be completely converted through a natural process that will not involve natural gas-powered ovens.

How, you might ask? The Laval infrastructure reproduces within a controlled environment two main natural phenomena: decomposition and methanization. In nature, decomposable matter is broken down by aerobic micro-organisms that, in the presence of oxygen, produce CO₂ and compost. If no oxygen is present, other micro-organisms, said to be anaerobic, produce biogas, two thirds of which is composed of methane, the principal component of natural gas. The Laval treatment centre will therefore produce renewable energy that will be able to fuel some 100 municipal vehicles, trucks and buses, or even the Gaz Métropolitain network.

For Mr. Giroux, who has been working in the residual waste field since 1984, this project constitutes the way ahead... and it will become a reality very soon. "We hope to begin construction in 2011 and have the plant in preliminary operation during 2013. After a year of getting it up to speed, it should be fully in service in 2014."

In the meantime, the City will distribute roll-out containers and work on a public information campaign.



To learn more about Laval's biomethanization and composting plant, visit the City's Web site: www.info.ville.laval.qc.ca.



The organic waste conversion facility will be built on the site of the La Pinière water treatment plant.



Processia is behind the wheel for Vodafone McLaren Mercedes



From left to right: Marc Allard, President, and his partner Vincent Fraser, Vice-President, PLM Solutions

Processia, a company specializing in the implementation of product lifecycle management (PLM) solutions, announced last February that it had entered into a partnership agreement with Vodafone McLaren Mercedes in order to improve the design, manufacturing and operating processes of the famous racing team's competition vehicle.

In Formula 1 racing, a winning performance is not simply a matter of the time it takes a car to complete the course. Before a driver even gets behind the wheel, a whole battalion of engineers goes to work to design a vehicle that will put him on the podium. In order to be both efficient and effective, the design process has to include extremely strict management of a host of parameters: project management, design plans, specifications for each component, technical documentation and intelligence, successive modifications, tests and their results, maintenance programs, and more. It is at this stage that Processia will act. The Laval company, which has some 50 consultants, mechanical engineers, software developers and systems administrators, will be responsible for reviewing Vodafone McLaren Mercedes processes and then proposing and implementing the technological solutions that will enable the racing team to optimize its operations in order to become more competitive... both on the track and in terms of its bottom line.

PLM refers to the technological platforms managing the many aspects related to a company's products: engineering, technical specifications and data, design and manufacturing. Processia works closely with two leaders in the field, Dassault Systèmes and Aras

Corporation. "Major multinationals were the first to equip themselves with PLM solutions," explains Marc Allard, President and Co-founder of Processia. "We have worked since 2000 with Bombardier Aerospace, Pratt and Whitney, Boeing, Airbus and Alstom, among others. More and more small and medium-sized companies are now finding it to their advantage to implement PLM solutions not only to manage their organizational processes, but especially to speed up the marketing of their products." It should also be pointed out that the overall lowering of the cost to acquire such technological platforms has allowed a greater penetration of those tools within SMEs that, of course, do not have the same deep pockets as multinationals.

European companies were among the first to adopt PLM systems, which is why Processia is present in France. Furthermore, the firm opened a new British division in London last January. Its partnership with Vodafone McLaren Mercedes will provide it with significant exposure throughout Europe. "The Formula 1 industry is one of the most demanding there is," declares Mr. Allard. "We will therefore be able to fully demonstrate our PLM expertise within that market."

At the same time as it is expanding in Europe, Processia is continuing to grow in Québec through providing its expertise to an increasingly varied range of companies in the aerospace, automotive, pharmaceutical, electronic, environmental and other industries.



To learn more about Processia, please contact Marc Allard, President, at allard@processia.com or 450 786-0400, ext. 222, or visit the company's Web site and Twitter feed: www.processia.com or www.twitter.com/processia.



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