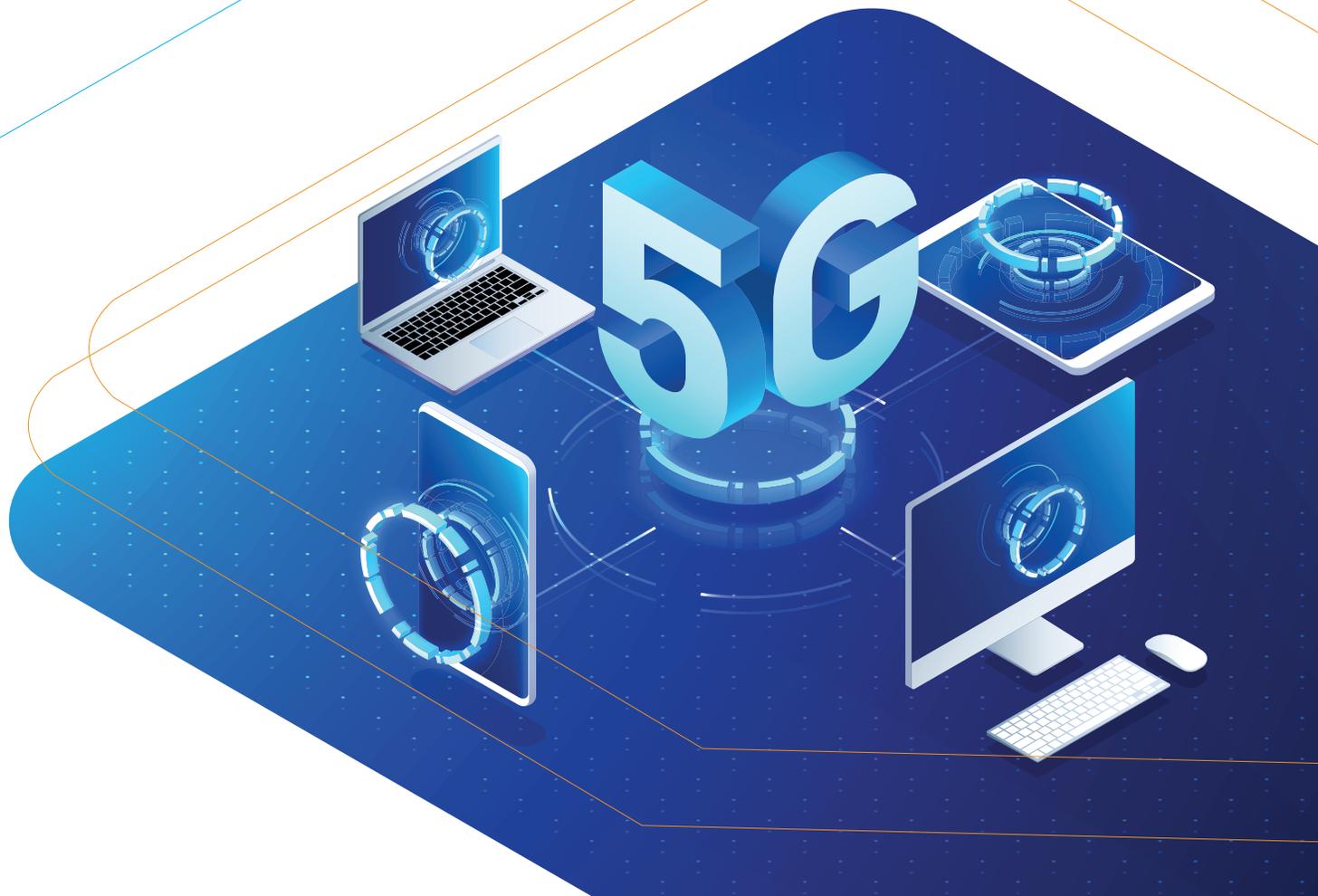


THE ENCQOR PROGRAM: AN EXCITING JOURNEY INTO THE HEART OF 5G



AT THE HEART OF 5G

We are pleased to present this document which contains a variety of testimonies from participants directly involved in the ENCQOR 5G program. They passionately share with us their ambitions, challenges and achievements. These captivating interviews highlight the almost unlimited applications of 5G technology, in a wide variety of sectors and situations. We learn about the immense impact that this technology will have in the future on our lives and communities, as well as on the functioning of businesses and the economy.

These interviews also reveal how crucial the collaborative work between the different players involved, whether they come from large companies, SMEs or academia, is in advancing 5G science and technologies. At the heart of this collaborative research work are hundreds of graduate students and dozens of supervising professors participating in internship programs, notably with the five founding partners of ENCQOR: CGI, Ciena, Ericsson, IBM and Thales. These internships provide a real impetus for the advancement of a large number of 5G projects within the companies concerned, whether they are established in Quebec or Ontario.

Thanks to its participants who come from different backgrounds, the ENCQOR program plays a vital and unique role in Canada in the development of 5G, as well as in the digital transformation of the country's economy. The support of the federal, Quebec and Ontario governments has been an essential ingredient in the success of ENCQOR, which by the end of 2021 will have involved some 800 SMEs in Quebec and Ontario, in addition to contributing to the maintenance of 1,800 high-level R&D jobs among our founding partners.

Today, Canada is a country that holds an enviable position in the world in terms of 5G R&D. ENCQOR 5G is part of that. We are proud of the work accomplished since our launch almost 5 years ago.



Germain Lamonde
Chairman of the Board
ENCQOR



Pierre Boucher
General Manager
ENCQOR

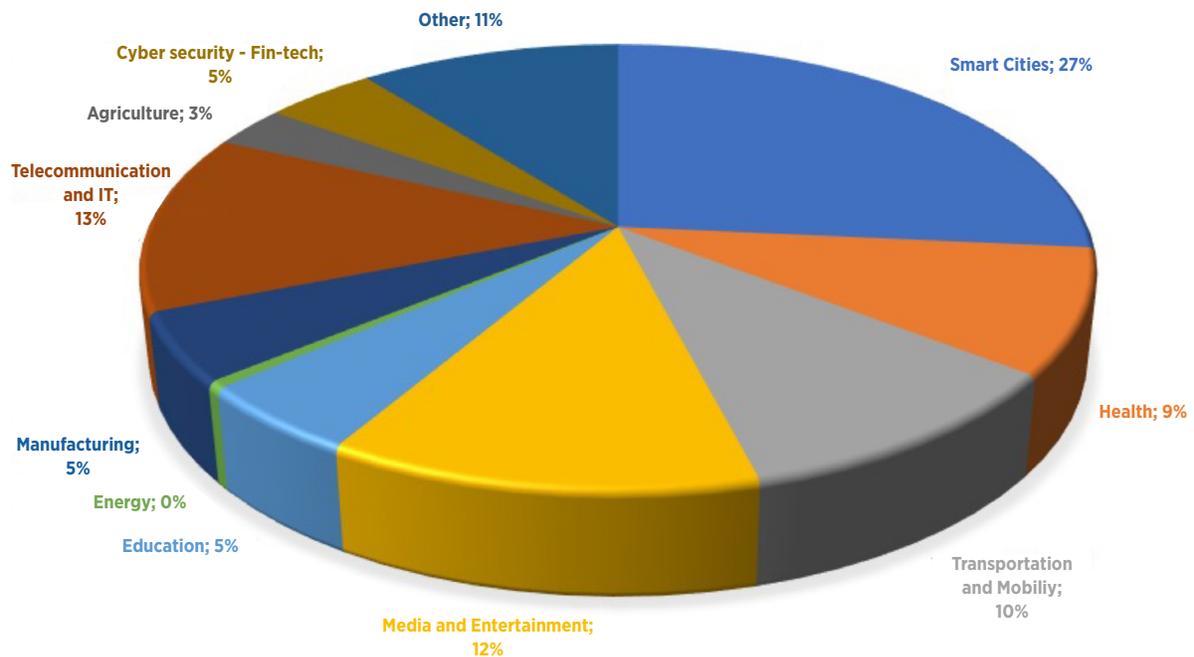
ENCQOR 5G PASSES THE 800 SME MARK

As of December 31, 2021, 800 SMEs have joined the ENCQOR 5G program since its launch. ENCQOR 5G SMEs are using 5G network solutions to modernize and transform a wide variety of industries, including telecom, multimedia and entertainment, transportation, smart cities, health-care, advanced manufacturing, agriculture and mining.

Participating SMEs were given free access to ENCQOR's high-performance test platforms, providing them with access to all three 5G frequency ranges. Despite the challenges posed by COVID-19, the ENCQOR team was able to keep the 5G testbed accessible throughout the pandemic.

With so many SMEs involved in the program, ENCQOR has created in a few short years a large, dynamic, diverse and innovative 5G ecosystem in Canada.

ENCQOR SME DECEMBER 2021 (N=800)



THE ANCHOR PARTNERS OF ENCQOR: A VAST ECOSYSTEM OF RESEARCHERS AND DEVELOPERS ENGAGED IN THE DEVELOPMENT OF 5G



Paul Baptista
*Head of ENCQOR and
Montreal site leader*
ERICSSON

FOR ERICSSON, 5G IS THE KEY TO UNLOCK CANADA'S COMPETITIVENESS ON THE FREE MARKET

Before ENCQOR, Canada was trailing behind fellow G20 countries when it came to innovation in 5G. The program contributed significantly to kick off research and development in the field of 5G ahead of commercial networks by bringing together public and private investments and creating a completely synergetic ecosystem.

“Some private labs set up their own test beds, but something public like ENCQOR 5G, freely available and with as many streams of knowledge, I haven't seen anything like it around the world,” explains Paul Baptista, head of ENCQOR and Ericsson Montreal site leader. The ENCQOR 5G model did not go unnoticed: close to 800 SMEs in Ontario and Quebec are engaged in the program and reframing how we think of connectivity. It is crucial for Canada to foster innovation within its borders. As Mr. Baptista points out, “if they had not been able to test out their ideas or products here, they would have had to do so in another country.”

Positioning Canada as a 5G pillar within Ericsson

As an anchor partner, Ericsson contributed large parts of the equipment used in the network. Having an actual network to experiment innovative ideas and potential technological solutions cannot be reproduced easily. Once the 5G corridor was up and running, it became a compelling argument in favour of their Canadian subsidiaries to obtain mandates from the headquarters.

The access to this network allowed employees to test out their ideas and to validate information that could not be verified before. At Ericsson, out of approximately 3 000 employees over 2 000 of them work specifically on 5G either in Quebec or Ontario.

5G technology is essential for Canada to stay relevant

For Mr. Baptista, “when ENCQOR was initiated, not many people understood what 5G could do. We spent a lot of time explaining the impact and opportunities of this new technology. Now, we need to move from proof of concept to 5G adoption.” He also highlights the importance of adopting this new framework in a timely manner.

Canadian productivity is faltering compared to most major players and maintaining the program would also mean building on that momentum to make sure it does not fall further behind. While our country cannot compete on salary and other facets of the free market, we can stay relevant by embracing 5G broadly and expanding the reach of our high-speed broadband networks. Key vertical markets, such as transportation, life sciences and manufacturing, need to have the means to leverage 5G and its applications on other disruptive technologies.

www.ericsson.ca

THE ANCHOR PARTNERS OF ENCQOR: A VAST ECOSYSTEM OF RESEARCHERS AND DEVELOPERS ENGAGED IN THE DEVELOPMENT OF 5G



George Efthimiopoulos
Director of Innovation and Research Programs
Ciena

CIENA: **LEVERAGING THE POWER OF COMMUNITY TO GROW THE 5G FOOTPRINT IN CANADA**

For George Efthimiopoulos, Director of Innovation and Research Programs at Ciena, what makes ENCQOR 5G special is the community it fostered since the program's inception. This unique collaboration between industry leaders, universities and SMEs creates exceptional synergy opportunities that have put Canada on the map for 5G innovation.

his approach created bridges where there had been none, and it worked. The program has reached a point where it is now recognized on the global scale. It is a key component for Canada to establish itself as a technology leader.

Being part of a recognized public-private partnership like ENCQOR 5G gives credibility to Ciena, not only in relation to its partners and clients, but also internally. Competition between branches across the globe for mandates is strong. Quebec and Ontario offices therefore have an edge, leading to significant Canadian R&D investments and projects from Ciena.

ENCQOR 5G as a talent pipeline

The alliance between industry and academia plays a major role at Ciena. Mr. Efthimiopoulos explains that they “rely heavily on the ENCQOR ecosystem to tap into talent. We’ve hired a lot of people through the program, especially interns from university partnerships. This exposure to the research done in academic circles helps the company stay on the cutting edge of technology.”

The technology landscape is evolving fast. New technologies, such as AI, cybersecurity and cloud computing, interact with one another and 5G is at the center of this convergence. A program like ENCQOR 5G, supported by government funding, incentivizes large players like Ciena to grow their R&D footprint in that market, which in turns helps grow SMEs.

From 5G availability to 5G adoption

For Mr. Efthimiopoulos, ENCQOR 5G needs to evolve to ensure the country does not fall behind. “Focus needs to change from 5G availability to 5G adoption. We have barely scratched the surface of how 5G can help vertical industries such as healthcare, manufacturing, agriculture and finance.”

Conversations between companies like Ciena and leaders of key sectors like the one mentioned are essential to accelerating 5G adoption and harnessing the technology to its full power.

The investments put into the program and the resulting innovation ecosystem cannot go to waste. There is a need to protect and secure this platform, especially as the world moves into an adoption phase of 5G technologies. Mr. Efthimiopoulos also notes that ENCQOR 5G should extend its reach on a national level so all Canadian provinces and territories can join forces.

www.ciena

THE ANCHOR PARTNERS OF ENCQOR: A VAST ECOSYSTEM OF RESEARCHERS AND DEVELOPERS ENGAGED IN THE DEVELOPMENT OF 5G



Mark Shorey
Director of Business Strategy
Thales

FOR THALES, **CANADA NEEDS TO MAINTAIN ITS CURRENT 5G R&D LEVEL TO STAY IN THE GAME**

5G technology is at its infancy, and in a fast-paced market with few competitors such as the transportation sector, losing momentum and established assets can have important repercussions for a multinational such as Thales.

Based out of Toronto, the Thales Worldwide Competency Centre is focused on urban rail signaling. Their solutions are used in metro systems in over 40 of the world's largest cities, including London, New York City, Hong-Kong, Shanghai, Singapore, and Dubai, safely carrying 3 billion passengers a year. By enabling higher peak data speeds in a massive network while lowering latency and increasing reliability, 5G innovations know no bounds: driverless and more frequent trains, faster time response, fail-safe autonomous systems, and environmental benefits. While 90% of their client base is outside of Canada, all the Thales R&D work takes place in our country.

According to Mark Shorey, Director of Business Strategy at Thales Canada, their "clients are already looking for 5G-ready solutions and want to integrate them into their existing systems".

For Mr. Shorey, no other program like ENCQOR 5G exists in Canada. The company currently employs 12 000 people on this project alone, and it is constantly on the look-out for new highly qualified talents. With the help of ENCQOR 5G, Queen's University and the University of Toronto are working alongside them to redefine urban transit.

Thales also makes use of the test bed in Ottawa to gain real life knowledge and improve on their 5G solutions.

Canada needs to keep the momentum going

The transportation sector is made up of a few major players who all have an eye on the prize. Slowing down the current R&D level in Canada could lead to lost efficiency and competitiveness on a global scale.

The ENCQOR 5G model fosters a dynamic network of partnerships between academia, industries, and SMEs, which in turn helps scale up companies and projects. In fact, Thales is currently partnering with SMEs and is looking to integrate some of their products into their existing systems. These partnerships also alleviate the constant need for new, highly qualified talents.

As Mr. Shorey puts it, "if we don't adapt and lead the evolution of these 5G technologies, we will easily lose our market position to someone else who will take that spot. We cannot lose this momentum and the foundations that have been put into place since 2017. We are just getting started."

www.thalesgroup.com

THE ANCHOR PARTNERS OF ENCQOR: A VAST ECOSYSTEM OF RESEARCHERS AND DEVELOPERS ENGAGED IN THE DEVELOPMENT OF 5G



Peter A. Barnes
Consulting director
CGI

CANADA AT THE FOREFRONT WITH ENCQOR 5G, SAYS CGI

Canada's 5G technology development efforts are attracting international attention. The uniqueness of the ENCQOR 5G program is even inspiring the creation of other programs across the Atlantic, according to the multinational CGI.

Along with IBM, Ericsson, Ciena and Thales, CGI is one of five multinational partners in the ENCQOR 5G program. This strong network, uniting the private sector, academic partners, and Canadian SMEs in the development of 5G is, until proven otherwise, unique in the world.

And it is attracting international attention.

That's according to Peter A. Barnes, consulting director at CGI, and responsible for his company's ENCQOR 5G development program. "Recently, we attended a meeting with British representatives from the UK 5G Innovation Network. They are very interested in understanding how we have been able to produce several significant advances so quickly. It's a collaborative model that they are interested in," says Mr. Barnes, who also sits on the board of ENCQOR 5G.

A "very important" partnership for the energy sector

"Bringing together five multinational companies to collaborate on 5G research allows for exceptional synergies," says the CGI consultant. "It's a unique model."

This model financially supports the development of innovative power grid management technologies developed by CGI. 200 people work full-time on these programs at CGI, funded by ENCQOR 5G.

The Montreal-based multinational is developing technologies that will improve the efficiency and safety of workers at large electricity providers. The systems will monitor the health of a power grid to the nearest millisecond and notify grid operators of any unusual event.

CGI's technology will also allow thousands of power grid workers to be tracked in real time as they change locations, assign them tasks, and virtually assist them in their maintenance operations through augmented reality. However, these actions require the transfer and sharing of a phenomenal amount of data and very low latency - something that 5G is finally making possible

An "essential for Canada" program

If the ENCQOR 5G program is getting noticed internationally, it is also because it positions Canada favourably in the race to implement 5G technology.

"It's imperative that we keep pursuing this work," says Mr. Barnes. "Anything that keeps us ahead of the curve in technology development should be a national priority."

CGI is also exploring the possibility of expanding its participation in the program beyond the energy sector. The telecommunications, systems integration, or innovation divisions may also be interested in participating in ENCQOR 5G in a second phase.

www.cgi.com

THE ANCHOR PARTNERS OF ENCQOR: A VAST ECOSYSTEM OF RESEARCHERS AND DEVELOPERS ENGAGED IN THE DEVELOPMENT OF 5G



Étienne Lemieux
Director of research
and development
IBM

IBM: “5G INFRASTRUCTURE DEVELOPMENT GOES THROUGH ENCQOR”

Developing the 5G network in this country means first building a robust infrastructure that will enable the exchange of a phenomenal amount of data in a secure manner. At the heart of this development are tiny, next-generation semiconductors developed by IBM in Bromont, in the Eastern Townships.

It's not widely known, but IBM's Bromont plant is also an important research and development centre. About 100 researchers are developing and designing the next generation of microprocessors and modules that will be at the heart of tomorrow's technologies. These modules are based on optical technologies - they are called silicon photonic microprocessors.

But their development would be “much more difficult if ENCQOR 5G did not exist,” says Étienne Lemieux, director of research and development at the Bromont plant. In fact, the program provides considerable financial support for IBM's research.

Benefits for all of society

15 to 20 people are assigned full-time to the development of the photonic microprocessors that will make 5G transmission possible. “If it weren't for the ENCQOR 5G program, these people wouldn't be working full time on this,” says Lemieux.

But beyond the jobs at IBM, all of society benefits from the program, says the director of R&D. “We supply several Canadian companies in the telecommunications sector, so the entire ecosystem benefits from our advances. Take Ranovus, for example. It's an Ottawa-based company, but they distribute optoelectronic products around the world. We have a development agreement with them.”

Supporting 5G research and development in Canada is also a strategic way to keep intellectual property in the country, says Étienne Lemieux. “There are several R&D centres in the world at IBM, but we are the only ones to be as advanced in silicon photonic micro-processors. We must not lose this competitive advantage.”

ENCQOR, an essential program

IBM's Bromont plant has identified optical modules as one of its main growth drivers in the coming years.

Étienne Lemieux is therefore adamant that maintaining and perpetuating the ENCQOR 5G program must be a priority. “Not having the financial support of ENCQOR 5G would slow down our R&D efforts, and that would have strong medium and long-term consequences on the lead we consider we have in the market. For us, this is fundamental,” he explains.

This is especially true because 5G technologies will be a determining factor in Canada's ability to establish itself in future sectors such as the Internet of Things and artificial intelligence. “By supporting the development of microprocessors like ours, we are supporting the entire Canadian economy,” concludes Mr. Lemieux.

The optoelectronic modules developed by IBM are gradually entering the commercialization phase. Their integration into 5G technologies is expected in the next few years.

www.ibm.com

ACADEMIC KNOWLEDGE: AN INDISPENSABLE INGREDIENT IN 5G'S EMERGENCE



Nicola Urbani
Executive Director of ISS
u Ottawa



Jaipreet Bindra
Business
Development Manager
u Ottawa

UOTTAWA SAYS PPP ARE ESSENTIAL TO STRENGTHEN THEIR INSTITUTION'S INNOVATION CAPACITY

The city of Ottawa has a rich telecom history. It therefore comes as no surprise that their eponymous university has become a hub for tech talent and learning. The University's Innovation Support Services reflects on how their involvement with ENCQOR 5G acts as a steppingstone towards more public-private partnerships (PPP).

5G research is a strong sector of UOttawa. Most of the University's engagement with ENCQOR 5G, be it R&D or internships, has been with the program's anchor partners. The research largely takes place in their Kanata North campus, located in the heart of Canada's largest technology park.

From student to inventor

The projects that originate from this collaboration between academia and industry cover a lot of ground. Topics of exploration include smart factories, manufacturing, AI, pharmaceuticals, augmented reality, cloud computing and engineering to name a few. "We are already seeing many tangible applications of 5G in an array of industries. This next generation of telecommunications truly is at the center of innovation," underscores Jaipreet Bindra, Business Development Manager at the Innovation Support Services (ISS). "In fact, through this public-private alliance, some of our profs and students filled patents for original creations. We have also seen the birth of new start-ups," he adds.

5G research also helps improve the infrastructure to build a more robust and resilient telecom network. This becomes even more impactful when thinking about the digital divide in Canada and how high-speed Internet could finally be deployed into underserved rural areas to benefit the general population and enterprises.

Brain drain and collaboration

While universities are implicitly mandated to accelerate innovation, they cannot do it alone. Access to financial resources is paramount in achieving that goal.

The ENCQOR 5G program proved useful in bringing in much needed funds, but also in establishing that initial bridging large telecom companies. However, research is not an exact science. Projects require time and money and a lot of them end up in no man's land due to lack of funding.

As Nicola Urbani, Executive Director of ISS puts it, "When you begin a research project, you set yourself a goal. You cannot anticipate if it will work exactly how you planned it and something coming for the left field might have much more value. If you don't have the necessary resources, you cannot be as opportunistic as you should in investigating that new avenue. Having a solid runway for projects and companies is key."

Another issue facing Canada is the brain drain of highly qualified labour, enticed by higher salaries and access to advanced technology. "If there was a more fertile environment between industry and academia, I suspect these folks would like to stay in Canada instead," notes Mr. Urbani. The work that ENCQOR began in 2017 is starting to bear fruits, but innovation needs time and tending to grow.

www2.uottawa.ca

recherche.uottawa.ca

ACADEMIC KNOWLEDGE: AN INDISPENSABLE INGREDIENT IN 5G'S EMERGENCE



Charles Despins
Professor
ETS

COLLABORATION BETWEEN UNIVERSITIES AND COMPANIES: A WIN-WIN PARTNERSHIP

The anchor partners of ENQCOR 5G first wanted to work together to catch up on the development of 5G technologies. Four years later, they can see how far they have come and realize, above all, that partnership has brought companies and universities much closer together, and that everyone wins.

“Everyone learns from everyone else,” says Charles Despins, a professor at ETS and an early collaborator in the ENQCOR 5G program. The student learns from the company, the company learns from the student, and the universities learn from their collaboration. It’s really a virtuous circle.

The École de technologie supérieure, through its Centech technology company accelerator, offers SMEs and researchers an incubation space to test their ideas and discoveries. A platform like this is an exceptional way to bring companies and universities together,” explains Professor Despins.

“Hundreds of SMEs have come to test their projects at Centech through the ENQCOR program over the years - that’s no small thing. I think it’s great, because that’s exactly what universities should be doing: acting as a springboard for large-scale projects that come to fruition.”

Among other things, ETS offers coaching and support for start-ups that want access to a test bed for 5G technology. It also assists entrepreneurs in their search for financing. Finally, it also offers companies with the opportunity to collaborate with its professors and students on small and large-scale projects.

It is this synergy between the academic and corporate worlds that is the beauty of the ENQCOR program, according to Charles Despins. “A student who collaborates on a 5G project with a major partner like Ericsson or Ciena, two or three years later, has become a true 5G specialist! That’s the beauty of the program – we are training high-level, highly qualified recruits, who are already integrated into the 5G business ecosystem in Canada.”

These students will then go on to work on company development teams, and these companies will develop relevant product offerings that position the entire industry favorably.

Maintaining critical mass is a priority

The ENQCOR 5G program must continue to maintain this thread that links academia, SMEs and large companies, says Charles Despins. “We have built a very rich ecosystem, which is producing concrete results. We have students who are becoming real experts and start-up companies that have real potential to position themselves favorably in the market,” explains Professor Despins. “We must not break this link.”

“Just this morning,” he adds, “I was in a workshop on 5G with experts from several countries. All major economies are positioning themselves in the field of 5G. If we don’t want to lose the head start that we’ve built since 2018, we need to secure funding for ENQCOR. We are underestimating how important this source of funding is in the development of 5G technologies in this country.”

www.etsmtl.ca

SMES: A DRIVER OF 5G INNOVATION



Thierry Jacquelin
Président
Groupe Alphard

ENCQOR'S SUPPORT IS PROVIDING ENGINEERING CONSULTING FIRM ALPHARD WITH THE MEANS TO ACHIEVE ITS AMBITIONS

SMEs aiming to develop innovative technological tools need more than just financial support. Beyond money, ENCQOR 5G's unique collaborative model acts as a springboard by creating an extensive network of contacts that connects entrepreneurs to large companies and academia.

Groupe Alphard, an engineering consulting firm founded in 2010, and its sister company, Alboréa, work in the industrial sector, particularly in the mining and metals sector. The firm has nearly 100 employees. Most of their clients' work sites are far from urban centres and skilled labor. Alphard has been involved in ENCQOR 5G since 2021 and in less than a year, its President, Thierry Jacquelin, is already seeing the benefits of the program.

Using 5G to remotely detect and assist construction sites

The power of 5G technology is at the heart of Groupe Alphard's innovations.

The company has been working on three projects since the beginning of 2021, all with the goal of improving job site management by creating more on-site data and mitigating skilled labour mobility issues. This data can be collected massively and efficiently processed by experts who are not necessarily at the work site itself. In doing so, the local team gains autonomy and agility.

The first project consists of the creation of leak detection equipment on waterproof geomembranes. These materials are used in groundwater, for example. By integrating 5G solutions, it becomes possible to locate potential leaks or breakages without the need for an expert to travel. The second project combines the 5G network with augmented reality to enable the collection and visualization of job site data via a tablet or cell phone to gain efficiency and quickly get an overview. Drones are at the heart of Alphard's latest project. Instead of having a specialist travel to a work site, drones will be equipped to detect waterproofing problems in certain materials.

The demand for these tools is growing, especially in the mining industry. To meet this demand, Alphard employs 4 people working full time on the development of these innovative technologies.

ENCQOR 5G, more than financial support

"If we want to help SMEs develop and innovate, we must help them assume the risk that comes with research and development projects. There are subsidies for the commercialization of products, but not for the pure development of technologies that do not yet exist. That's what ENCQOR 5G is all about," says Jacquelin.

ENCQOR's unique model provides significant financial support, but also provides access to essential technical resources, such as the test bed, and enables all 5G players to exchange ideas.

Alphard is already in contact with companies in Africa and Oceania interested in their work site management solutions. The ENCQOR 5G program is an important pillar to meet this growing demand and to see the products in action.

www.groupe-alphard.com

SMES: A DRIVER OF 5G INNOVATION



Daniel Kharlas
COO
Exar Studios

EXAR STUDIOS WANTS TO KEEP ONTARIO-BASED ENTERPRISES INNOVATING

The Canadian tourism sector was hit especially hard by the pandemic. At a time when outdoor activities became the norm, Ontarian SME Exar Studios helped people venture outside their homes to go on augmented reality adventures. As restrictions are lifted, their goal is now to bring people back into public spaces. ENCQOR 5G, by providing valuable research and testing opportunities, became a growth vector for their business.

Based in London, Exar Studios brings to life augmented reality and audio adventures by way of their user-friendly mobile platform, Engage ART. Their clientele is made up of tourism attractions, destination marketing organisations, museums, art galleries and business improvement areas in Canada and the US. They have also dipped their toes into the higher education sector.

When R&D leads to job creation

Augmented reality is the next big thing in advertising and audience engagement. AR powers an endless array of immersive and interactive environments, visual guidance and other digital experiences. “Everything runs off smartphones in the pure definition of what our product does. Anything 5G related is going to improve its quality. We are always looking stay a few years ahead and that means really understanding how 5G is going to improve smartphones’ capabilities, whether that means opening up large amounts of data, unlimited data plans and really fast download speeds,” explains Daniel Kharlas, COO of Exar Studios.

With that in mind, their team took advantage of the 5G infrastructure made available by ENCQOR to experiment on visualization of large amounts of data coming from IoT devices. The results of these research efforts have been valuable for multiple of their ongoing innovation internal projects. In fact, it proved so beneficial that it indirectly led to a wave of hiring. Since entering the program, Exar Studios hired 8 new staff.

Ready from day one

To stay competitive, Exar Studios needs to have solutions ready for day one of rollouts. As Mr. Kharlas stresses, they “have to work at the pace of what smartphones can do. As users become more comfortable with their smartphones and new, enhanced functions made possible by 5G become available, we have to make sure we can stay ahead of the trends. That’s only possible because of programs like ENCQOR 5G.”

By putting more investments and support at the disposal of enterprises, more of them can stay globally relevant and competitive, and therefore increase their hiring capacity in Canada. “We need to keep Ontario based companies innovating,” concludes Mr. Kharlas.

www.exarstudios.com

SMES: A DRIVER OF 5G INNOVATION



Pascal Chiva-Bernard
CEO and founder
ARA Robotique

5G TECHNOLOGY TAKES FLIGHT THANKS TO ARA ROBOTICS

Efficiency, accuracy, and reliability are the watchwords at ARA Robotics, a developer of autonomous drones specializing in construction site mapping. With the help of ENCQOR, the company has been able to test new technological solutions that use 5G to improve its commercial offering.

Based in Montreal, ARA's clientele is varied. Their clients operate in many sectors: construction, engineering, civil and commercial defence, manufacturing, and mining. ARA's solution offering includes drone equipment and applications. Nearly half of the 20 employees work in research and development.

Performing remote inspections with precision

As part of the ENCQOR 5G program, ARA has been working on an IoT mobility project related to the development of a piece of drone equipment that enables extremely accurate real-time GPS location tracking. This is a first step that will eventually lead to a merger with other modules that will require a more efficient infrastructure in terms of bandwidth. This amplification of drone connectivity, which 5G will enable, results in more detailed, higher quality, and easier-to-use data collection.

Members of the ARA Robotics team also took part in an ENCQOR 5G Bootcamp where they worked on a tool for viewing and transferring high-quality, real-time video from a drone in flight.

The combination of these innovations has led to several applications. Pascal Chiva-Bernard, CEO and Founder, explains that "an employee could inspect an industrial site located in northern Quebec without leaving his office in Montreal."

In addition to facilitating access to a test bed, ENCQOR 5G's involvement with ARA supported a full-time research position during the pandemic. Having an additional skilled resource allowed the company to dive even deeper into the fundamental development of their various products.

There's still a lot to do

What worries Mr. Chiva-Bernard is access to affordable cellular data plans over the next few years. "In a single day of operations, we're up to 100-300 GB for a single device." The cost issue then becomes central and could hinder the use of 5G for many SMEs.

He also underlines that 5G infrastructure is nascent. The ENCQOR 5G model, as relevant and appreciated as it is, is time limited. As Mr. Chiva-Bernard explains, "The program has only been in existence for four years, and that's not much time for a new technology of this magnitude. We're just beginning to see the potential applications. Our projects need more time and support to really mature."

www.ara-uas.com

SMES: A DRIVER OF 5G INNOVATION



Cory Skinner
CEO and founder
FactR

CONNECTING BUSINESSES WITH RECENT GRADUATES TO MITIGATE TECH TALENT SHORTAGE

While the pandemic forced many businesses to press pause, other sectors saw their activities go through the roof. It is the case of FactR Limited, a SAAS company headquartered in Ontario, specialized in corporate process digitization and automatization. The ENCQOR program helped them expand their product line, but also to find highly qualified labour.

Founded in 2017, FactR first entered the market in 2019 with business solutions tailored for complex supply chains and workflows looking to go digital. Their platform automates and digitizes processes related to order, contracts, and transaction management with trusted and secured data. Their customer base operates in a wide range of fields including e-commerce, medical and life sciences, real estate, and construction.

5G to help companies manage their day-to-day

The pandemic had a great impact on their business, as notes Cory Skinner, founder and CEO: “When COVID hit, we saw an increase in demand for our offering. We were one of the lucky ones. We are now at 14 employees and around 85% of them work in R&D.”

With the support of ENCQOR, the FactR team is working on a platform designed for the construction sector, called ConstructR, to help manage information, data, and process challenges. The increased broadband and lower latency made possible by the 5G network are great allies in the realisation of this project. Enterprises using this product will reduce their operations costs with the use of cloud storage, analysis of large data sets and automatization. Mr. Skinner hopes to hit the market in mid-2022.

Since they work with corporate clients and sensitive information in nine countries, cybersecurity is at the core of FactR’s operations. Mr. Skinner highlights the exponential need for secure data and the essential role 5G plays in that sphere: “5G is a framework. We need to work on elevating it, while always keeping security top of mind.”

More than access to equipment

Mr. Skinner applauds the ENCQOR model for its flexibility and its support, no matter the stage at which your company is. Whereas a lot of other innovation programs look for fully fleshed products on the brink of commercialisation, ENCQOR aids SMEs who are in the ideation phase. Another element that sets the program apart is the easy access to a test bed and technical support to experiment on an actual 5G network. Data collected during those sessions is essential to product development.

More than access to equipment, the program facilitates access to talent, a growing issue in an industry facing labour scarcity. The ENCQOR 5G Young Talent Development Program proved very useful for FactR. Some of the recent Ontario university graduates who started out as interns were hired by the company. In return for providing them with hands-on experience, FactR was able to tap into their academic knowledge to strengthen their capacity to develop cutting-edge products.

www.factrpay.io

SMES: A DRIVER OF 5G INNOVATION



Mario Genest
Président
AYE3D

AT AYE3D, 5G TECHNOLOGY IS A HIT

Videoconferencing and telemedicine have become very popular over the last two years. AYE3D, a company that developed a 3D monitor, is making the leap into telepresence. The company is looking to build a 3D videoconferencing solution that uses the power of 5G, with support from ENCQOR, among others.

One of the main challenges of 3D image projection technology is wearing a suitable pair of glasses. AYE3D, a Longueuil-based company, has developed a limitless high-resolution 3D screen that completely eliminates the need to wear glasses. This screen, named FRE3DOM, saw the light of day in 2019. The team now has 10 employees, most of whom work in research and development.

Remote treatment with the help of 5G

In an initial proof of concept, AYE3D wants to leverage 5G to deploy a 3D video conferencing tool that will work in concert with their monitor. Many application avenues are possible, including telemedicine. In the near future, we can imagine that a surgeon could analyze the organ of a patient located in another city from every angle.

Since a large amount of data must be transmitted rapidly between the participants of a videoconference to avoid any form of latency, 5G technology is becoming essential. «In order to transpose our environment remotely, the 3D rendering must travel using cloud technology. We initially underestimated the capacity of encoding and decoding. Thanks to the ENCQOR 5G test bed, we were able to conduct tests to this effect, which allowed us to identify areas for improvement,» explains Mario Genest, president of AYE3D.

In addition to medicine, we can foresee applications in construction with “digital” reproductions of building sites, or in the video game industry.

ENCQOR 5G, at the right place and the right time

In addition to ENCQOR 5G’s financial support, Mr. Genest emphasizes the importance for his company’s development of having access to high-performance test platforms such as those at the Quebec Metro High Tech Park. Being able to test the company’s technological solutions in real time is essential to accelerate the eventual marketing of this telepresence tool. “ENCQOR 5G really came at the right place and the right time for us,” concludes Mr. Genest.

www.aye3d.com



SMES: A DRIVER OF 5G INNOVATION



Katie MacGuire
Co-founder and CEO
Vubble

SHEDDING LIGHT ON MISINFORMATION WITH THE HELP OF 5G

Issues related to misinformation and disinformation continue to be topics of discussion in the media. Vubble, an information technology company based in Toronto and Waterloo, aims to separate facts from fiction and help audiences find what they want, when they need it. The ENCQOR 5G program was instrumental in facilitating their research efforts to reach this goal.

Vubble works at the intersection of communications, data logistics and computer vision. Their team builds tools that interpret and data structure video content with the intent to get accurate information in front of the right people in a timely manner. Its customer base is made up of Canadian, American, and international media companies such as CTV and Channel 4.

Using 5G to harness the power of video data

One of the issues the Vubble team came across was the overabundance of video content available online and the difficulty to identify reliable, well-sourced and relevant information. To remedy that problem, they developed the Vubble Video Categorizer. It automates the data labelling and categorization of ambiguous and contextual information based on both visual and audio cues.

The 5G framework, which allows for high-quality broadcast and reliable transmission of massive amounts of data, has incredible potential for Vubble. With the support of ENCQOR and Communtech (the innovation hub of ENCQOR in Waterloo), they put their Categorizer to the test with a series of experiments in the 5G network iPaas space.

Two solutions came to life based on the results they achieved. The first was the creation of the deployment of a stand-alone Categorizer system in the cloud, which enables their clients to upload and label video content without installing software on their local device. The second was a Vubble video storage that operates without the need for third-party services such as YouTube.

Leveraging research into thought leadership

“Big broadcasters want to work with 5G, but they haven’t done it yet. I think we are more agile as a smaller enterprise. We want our customers to know that we understand and that we have worked with 5G, but also to position ourselves as thought leaders,” explains Katie MacGuire, co-founder and CEO, on the strategic nature of this new technology for her business.

The ENCQOR 5G program and its partners proved extremely helpful to gain that much-needed insider knowledge, even at this early stage. The thing Ms. MacGuire loved about this program, compared to similar ones, “was its flexibility. We could do research without needing a technology-ready product. The people of the testing site were also extremely helpful and knowledgeable.” Also, the Vubble team could try their Categorizer on multiple devices from different brands (smartphones, computers, cloud storage, etc.), which would have been expensive to do on their own.

While emphasis was put on experimental research and development, the timeline of ideation to commercialization usually stretches over many years. “It would be nice for us to bring in products at a higher level in a second phase of the program,” notes Ms. MacGuire.

www.vubblepop.com

ENCQOR : A VAST 5G ECOSYSTEM OF INNOVATIVE SMES WORKING IN A MULTITUDE OF BUSINESS SECTORS

as of December 31, 2021

IOAIRFLOW
ITMANAGER.NET INC.
1000ML
10840939 CANADA INC.
26 DAY INC. DBA ROADLAUNCH
2718645 ONTARIO INC (C/O WATFLY)
2766309 ONTARIO INC. DBA
BLUEKEY AI TECHNOLOGY
3D VIRTUAL CRAFTING INC
3S TECHNOLOGIES
4ELEMENTS
8137862 CANADA INC. DBA MARKITECH
8X LABS
9406395 CANADA INC.
9411-9641 QUEBEC INC.
A G D VERCHÈRES EXPRESS
A.I. VALI INC.
A.P.S. COMPLIANCE CONSULTANT INC
ABC DUST TECHNOLOGIES CORP.
ABLE INNOVATIONS INC.
ABRAFO NEGAJoule
ACCEDIAN NETWORKS
ACCU-TEMP SYSTEMS
ACOTECH INC
ADEXFLOW INTERNATIONAL INC.
ADVANCED OPTO-MECHANICAL SYSTEMS
AND TECHNOLOGIES INC. (AOMS)
ADVANCED PROCESS
AUTOMATION TECHNOLOGIES INC
AEPONYX INC
AERONYX
AFFORDANCE STUDIO
AGENCE SHERPA
AGRITECH URBAIN INC
AHA PLATFORM INC
AI REDEFINED
AIH TECHNOLOGY INC
AIRMATRIX
AIRSHARE INC.
AISIGHT INC.
AITERA
AIVIEW INC.
AIZTECH INC
AIZTECH INC.
AKRONYM CONSEIL ET STRATÉGIE INC.

ALBEDO INFORMATICS INC.
ALBOREA
ALCEA TECHNOLOGIES
ALGONAT
ALPHA LIBERTEE
ALPHABET COMMUNICATION (ALPHC)
ALTIS LABS
ALTKEY STUDIO VR-AR
ALTUS TECHNOLOGIE INC -
INDUSTRIAL IOT INC
A-MALGAM TECHNOLOGIES
AMAR-VR LAW (AMARVIR SIDHU
BARRISTER AND SOLICITOR)
AMBRA SOLUTIONS
AMEW INC
AMOTUS SERVICES
AP RENEWABLES
APERIUM
APN GLOBAL
APP MASTERY INC.
APP8
APPLIED RECOGNITION
AQUANTY INC
AQUARIUS INNOVATION INC.
AQUARIUS INNOVATION INC.
[10757969 CANADA CORPORATION]
AQUASENSING INC
ARA ROBOTICS
ARTIZYOU
ARVIZIO INC.
ARVIZIO INC.
ASG MAPPING LTD
ASI - AVIATION STRATEGIES INTERNATIONAL
ASSETFLO INC.
ATEK
ATEN TECHNOLOGIES
ATHENA INTEGRATED SYSTEMS INC
ATHENA TECHNOLOGIES
ATRACKTIV (10560669 CANADA INC)
ATTITUDE MARKETING
AUDACE TECHNOLOGIES
AUDESSE
AUTONOM INC.
AUTONOMOUS VEHICLE ORGANIZATION LTD.
AUTZU INC

AVARA MEDIA
AVO
AWASTOKI
AWVENTXR INC.
AXIONABLE
AXIS LABS INC
AYE3D INC
AZ APPLIED TECH INC.
AZURDEV
B DATA SOLUTIONS INC.
BADEL MÉDIA
BASE CAMP CONNECT
BAUNE ECOSYSTEM INC.
BAUNE ECOSYSTEM INC.
BAYSIL INC
BBA
BEAM ROBOTICS
BEAM.CITY INC.
BEAUCE TELECOM
BEHR TECHNOLOGIES INC.
BI EXPERTISE
BIG ROCK MOUNTAIN INC.
BIOCONNECT
BIOLIFT
BIONIC-I INC.
BLACKSPARK CORPORATION
BLAISE TRANSIT
BLINQ WIRELESS
BLOGS4
BLUBRIM SYSTEMS INC.
BLUE CITY TECHNOLOGY
BLUEROVER INC.
BLUERUSH INC.
BLUESURGE TECHNOLOGIES
BLUWAVE-AI
BM MANUTENTION
BOOMBOX
BOSS INSIGHTS
BRAIYT AI INC.
BRINX SOFTWARE INC.
(O/A MASTERPIECE VR)
BRIOWIRELESS INC.

ENCQOR : A VAST 5G ECOSYSTEM OF INNOVATIVE SMES WORKING IN A MULTITUDE OF BUSINESS SECTORS

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BRITE4
BUSPAS
BY ARROHI
C4PINC
CANIMMUNIZE INC.
CANO COMPANY
CANSCANTECH
CATHERINE BELANGER - ARTISTE
CÉDRIC SOMMERS
CENTRE PHI
CERBO CANADA INC
CHAAC
CHARGELAB INC.
CHEETAH NETWORKS
CHILLWALL INC.
CHIRP
CHROMASCOPE MÉDIA
CITYZEEN
CIVALGO
CIVILIA
CLARIDION
CLAUSEHOUND
CLEARPATH ROBOTICS INC.
CLEARPATH ROBOTICS INC.
CLEARSKY CONNECT INC.
CLICKMOX SOLUTIONS INC
CLINIQUE MULTISENS
CLOUD MONITORING OBJECT (CMO)
CLOUDCONSTABLE INCORPORATED
CLOUDHAWK
CLOUDVISOR WEALTH INC.
COENG ADVISORS 2020 INC.
COGNICORP PLUS THERAPY -
COGNI XR HEALTH
COLLAB MACHINE
COLMAKERS INC.
COMLAB INC
COMMUNICATIONS TELESIGNAL INC.
COMMUNITY SMART LIVING INC.
CONCEPT INFO WEB
CONNECTED EDUCATION
CONNEXICA
CONTEXTERE CORPORATION
CONTINUUMS
COTEACHER
COUNTERCRISIS TECH
CRATER LABS
CREATIVITY AT SCALE INC.
CREO
CRYP LABS
CYA INC.
CYBERDEFENSE AI
CYBERWORKS ROBOTICS
DAAKOR INC.
DATA H _ ARTIFICIAL INTELLIGENCE INC.
DATAPERFORMERS
DAXYON
DEEP LITE
DEEPSIGHT
DEJERO LABS INC.
DESKLINX INC.
DIGIGAIN CONSULTING INC
DIMONOFF
DINOC'RE (9424-8721 QUÉBEC INC.)
DISCRETE CHOICE INC.
DISTAPPS
DIZIFILMS
DRONE DES CHAMPS
DUMONT AUTOMATION
DUOLOGIK
E2027
E2IP TECHNOLOGIES
E-3 SOLUTIONS WEB & MOBILE - KATALYS
EAIGLE INC.
ECOGREENCROPS
ECOPIA TECH CORPORATION
ECOSYSTEM INFORMATICS INC.
EDGECOM ENERGY INC.
EDGEGAP
EDGEWATER WIRELESS SYSTEMS INC.
EFFICIOS
EKUMEN
ELASTALINK CORP
ELECTROLINE EQUIPMENT INC
ELECTROPHOTINE IC
ELEVEN-X INCORPORATED
ELITS CANADA INC
ELLICOM
EMERGCONNECT INC.
ENER MINER
ENERTICS INC.
ENERTICS INC.
ENVISION INTEGRATED
EON MEDIA CORP.
ERAMOSA ENGINEERING INC.
ESIGHT CORPORATION
ESPRIT-AI INC.
ESTAFFMATCH INC. (O/A HYRE INC.)
ET GROW
ETHICA DATA SERVICES, INC.
EUGERIA
EUREKAIROS INC.
EVOA
EWARREN FIN
EXACT TECHNOLOGY INC
EXAR STUDIOS
EXDIALYUL
EXO INSIGHTS CORP.
EXPEDIBOX INC
EYFUL
EZCROPS INC.
EZSEC
F.R.Y. CANADA
F8TH
FABLAB4D
FACTR
FACTR LIMITED
FICTION MINE
FIDUS SYSTEMS INCORPORATED
FINTROS - 9823565 CANADA CORP
FIRESTITCH INC. FIRST 30
FLAGTOWN SAS
FLARE SYSTEMS INC
FLEX GROUPS
FLEXUR SYSTEMS INC.
FLIGHT DATA TECHNOLOGIES (FDT)
FLOE AI TECHNOLOGIES
FORAHEALTHYME INC.
FORMI 3DP INC.
FTEX
(ANCIENNEMENT TRISTAR MULTICOPTER)

ENCQOR : A VAST 5G ECOSYSTEM OF INNOVATIVE SMES WORKING IN A MULTITUDE OF BUSINESS SECTORS

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GAN SYSTEMS
GASTRONOMOUS TECHNOLOGIES INC.
GENBU TECHNOLOGIES INC.
GÉNIELAB
GEOMATE INC
GIMME360 INC.
GLOBAL LIFI TECH
GNOWISE INC.
GNOWIT INC.
GOJI TECHNOLOGY SYSTEMS INC.
GOLD SENTINEL INC.
GOLDNEYE
GPS SOLUTION
GRADIENT ASCENT INC.
GRAIN DISCOVERY CORP.
GREENE ÉNERGIE INC
GREENLAND INTERNATIONAL
CONSULTING LTD.
GROUPE ALPHARD
GROUPE E-NO
GROUPE HUMACO
GROUPE NEURO SOLUTIONS
GROUPE TRIFIDE
GROW RATIO
GROWRATIO
GSD GROUP INC
GSS-SOLUTIONS
GTX CANADA
H.H. ANGUS & ASSOCIATES LTD.
H2O GEOMATICS
HALION DISPLAYS INC.
HAULERAD (MOVIE MEDIA)
HAVELAAR CANADA
HEALTHIM
HELLO ART
HELPWEAR WEARABLE TECHNOLOGIES INC
HIDELIGHT
HIGHCLOUD
HILITE OUTDOOR INC.
HILO SMART MIRROR
HINDAM INNOVATION CORP.
HITCH
HOLY CITY VR INC.
HOOKMOTION

HORSE SHOW SERVICES
HUEX LABS INC.
HUMANITAS
HYIVY
IDEOCONCEPT
IDEVOPS.CA
I-EMS GROUP LIMITED
IFEEL VIRTUEL INC
FIVEO CANADA INC.
ILLOGIKA
IMC BUSINESS ARCHITECTURE INC.
IMD RESEARCH
IMERCIV INC.
IMMERZONE - DORFTV
IMPORTANT SAFETY TECHNOLOGIES INC. /
TECHNOLOGIES DE SÉCURITÉ IMPORTANT
INC.
IMPRES
IMPRES INC. (34490)
INCENDIA CANADA
INCUVERS INC.
INDRO ROBOTICS INC.
INFERA INC
INFILOCK INC.
INFO TELECOM
INNOVOX
INSTAGE
INTELENSE INC.
INTELLICULTURE
INTERTEK CANADA
INVESTISSEMENTS GREENO INC
INVINTORY WINE
INVISION AI, INC.
IOL SYSTEMS INC.
IP TECHNUMÉRIQUE INC
IPTOKI
IREGAINED INC.
IRIS R&D GROUP INC.
IROKKO
ISARA
ISB GLOBAL SERVICES
ISCAN EXPERTISE LASER 3D
ISR TRANSIT
IT LINK CANADA

IVERSOFT
IVIRTUAL
JAKARTA
JEU VERT INC. (GREENPLAY)
JL CORRIVEAU
JNA LEBLANC INTERNATIONAL
JOMBONE INC.
JP2 SOLUTIONS INC
KA IMAGING INC.
KALITEC
KAMAZOOIE DEVELOPMENT CORPORATION
KANKEI GROUP
KAT INNOVATION
KAVTEK SOFTWARE CORPORATION
KEPSTRUM INC.
KILMANGERO
KILOWATTPACK
KINGS DISTRIBUTED SYSTEMS LTD
KLASHWERSK
KOMODO
KOMUTEL
KORAH LIMITED
KORECHI INNOVATIONS INC
KRAKEN LAB
KROWDX
KUNIN AI INC.
KWILT INC.
L.V.I.C.T. SOLUTIONS INC.
LA TECHNOLOGIE HAPPY HÔTELS INC.
LABONWEB
LANTERN INSTITUTE
LANTERNE DIGITALE
LAROCHELLE GROUPE CONSEIL
LARUS TECHNOLOGIES
LATENCE TECHNOLOGIES INC
LATYS
LAZAR ENTERTAINMENT
LE TECHSTOLOGUE
LEAP CONSEIL
LEAV
LEDDAR TECH

ENCQOR : A VAST 5G ECOSYSTEM OF INNOVATIVE SMES WORKING IN A MULTITUDE OF BUSINESS SECTORS

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LEMAY SOLUTIONS CONSULTING INC.

LEMAYCONNEX

LES SOLUTIONS NOVASPEX INC

LES SYSTÈMES FLYSCAN

LES SYSTÈMES MÉDICAUX IMAGEM INC.

LES VIOLONS DU ROY

LEVEL SOFTWARE INC

LIMA CHARLIE

LOCAÏA - 9450-3380 QUÉBEC INC

LOCATEMOTION INC.

LOG5DATA

LOGICIELS ADEXFLOW INTERNATIONAL INC.

LOGICIELS RADIO IP INC.

LONGAN VISION

LONGTERM TECHNOLOGY SERVICES INC.

LOPHIRA

LORCAN TECHNOLOGIES INC.

LORDALEX & CO

LOYALTYMATCH INC.

LTI INFORMATIQUE ET GÉNIE

LUCID

LUCID INC

LUMCA INC

LXSIM

LYNXFIELD CANADA

LYTICA INC.

MADSUS

MAESOS TECHNOLOGIES INC.

MAESTRIA SOLUTIONS INC.

MAGASIN GÉNÉRAL

MAJIK SYSTEMS INC

MAKILA

MANTLE BLOCKCHAIN

MANYETA

MAPLE PRECISION INC

MAPYOURPROPERTY INC.

MARCHÉ B

MARGAL CANADA

MARID TECHNOLOGIES

MARION SURGICAL

MARTELLO TECHNOLOGIES

MASV

MATAGAMI TECHNOLOGIES INC.

MAXIS

MECH SOLUTIONS

MEDCOMXCHANGE

MEDELLA HEALTH

MEDIA ONE CREATIVE INC.

MEDYX INC.

MEGLAB

MELIOREM WORLD

MENTUM GROUP INC

MENYA SOLUTIONS INC.

MERO TECHNOLOGIES INC.

METROPOLIS

MICROGREEN SOLAR CORPORATION

MIFKA TECHNOLOGIES INC.

MINETELL

MIRALUPA INC

MIREILLE CAMIER

MIXA VISION INC

MLAI ANALYTICS INC.

MMSENSE TECHNOLOGIES INC.

MOBII SYSTEMS NORTH AMERICA

MOBISTREAM SOLUTIONS

MORELLI DESIGNERS

MOVIWEAR

MTLIGHT COLLECTIVE INC.

MULTI PRESSION (PSI)

MUNICIPAL MEDIA INC.

MVT GEO SOLUTIONS

MY LIL' HEALTHMART

MY LIL HEALTHMART INC

MY PITBOARD

MYLAMININ

MYVALUE CHANGE AGENTS INC.
(CHANGENT.IO)

MYVELOFIT INC.

NECTAR

NECTAR TECHNOLOGIES INC

NEIGHBOURHOOD WATCH PLUS

NERD AUTO

NERONIC WORKS

NERV TECHNOLOGY INC.

NESTING SAFE INCORPORATED

NETEX ENTERPRISES INC.

NEUVATIV

NEVVON - MOBILE EDUCATION

NEW VISION SYSTEMS CANADA INC.

NEWEB LABS INC

NEXAPP

NEXT KNOWLEDGE INC.

NIDINE TECHNO

NIMBUS LEARNING INC.

NIOSENSE

NIRVANA CHAUFFE PISCINES

NOESIS DIGITAL

NOMAD XR

NORDEXCO

NORDICOM INC

NORDIKEAU INC.

NORMAL STUDIO INC

NORMATIVE

NORTH POINT LIFE SCIENCES

NORTH QUANTUM GENERATION

NOTIO TECHNOLOGIES INC - ARGON 18

NOVA INSTITUTE

NOVATECH ANALYTICAL SOLUTIONS INC

NOWASTE

NUPORT ROBOTICS INC.

NURAN WIRELESS

NURO CORP.

NUTAQ TECHNOLOGIES INC.

NUUTOK

NUVOOLA

NXM TECHNOLOGIES INC

NXTSENS MICROSYSTEMS

NYTILUS INC.

OHRIZON - RÉALITÉ AUGMENTÉE
AVANCÉE

OLYMPIC TOOL AND DIE

O-M6 TECHNOLOGIES

ONE SILICONE CHIP PHOTONICS (OSCP)

ONGOING ENTERTAINMENT INC

OPEN OCEAN APPS INC

OPENFLEET

OPENMIND TECHNOLOGIES

OPERAI - IA OPÉRATIONNELLE -
OPERATIONAL AI

ORANGE MEDIA CANADA -
LANF - ORANGEAD

ORANGE TRAFFIC

ORCHARD

ENCQOR : A VAST 5G ECOSYSTEM OF INNOVATIVE SMES WORKING IN A MULTITUDE OF BUSINESS SECTORS

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ORDERUP TECHNOLOGIES INC

ORMUCO INC

ORTHOGONE TECHNOLOGIES INC.

OSSICLES TECHNOLOGIES

OTOCOR.IO INC.

OVA

OVERBOND

P2+CO SENC

PAIDIEM PAYMENT SOLUTIONS INC.

PALEO DOCTOR

PAPINEAU INTERNATIONAL

PARALLEL GEOMETRY INC

PARETO TECH INC

PARSEDATA 2020 INC

PATTERNEDSCIENCE

PCPVR INC.

PEPINIERES TRUSART LTES

PERSONIFI AI. INC.

PEYTEC INC.

PHOENIX ORBIT

PICCLES

PIKNIX

PILOT THINGS

PINCH VR

PLAN DE VOL INTERNATIONAL

PLANETE GREENLEAVES INC.

PLANIFIKA

PLC GROUP

PLEORA TECHNOLOGIES INC.

PM SCADA

PMG TECHNOLOGIES

POSITIVE DEGREE

POSTALGIA INC.

POWERSHIFT CLOUD

PREVU3D

PROCESS

PRODUCTIONS SIX & DEUX

PROGRESUTILE CANADA INC / 3DVERSE
TECHNOLOGIES INC

PROJECT1 SOLUTIONS, INC.

PROLOGUE AI

PROPULSA INNOVATIONS

PROTEUS RÉALITÉ VIRTUELLE INC

PROTOLAB QUEBEC

PUBLIVATE INC.

PULSE INDUSTRIAL

PURELOAD SOFTWARE

PUSH DESIGN SOLUTIONS INC.

QIDNI LABS

QOHERENT INC

QOHERENT INC.

QUALI AI

QUANTOLIO

QUANTUM CAPTURE

QUBE-4D VENTURES INC.

QUILL INC.

QWHERY INC.

RADIO BEAM NETWORKS

RAKR

RE-AK TECHNOLOGIES

REDLINE COMMUNICATIONS INC

REDLORE CANADA INC.

REELYACTIVE

REIMAGINE AI

REIPOWER INC

REKAMMEND

REMOTENCC

REMOTRONIC CORP.

RENALCAN INC.

RESADEHBOZORG

RÉSEAU LCI

RFIC TECHNOLOGIES

RHEINMETALL CANADA INC.

RIDECOMMERCE

RK ELECTRO

RMDS INNOVATION

ROLL TECHNOLOGIES INC.

ROMAERIS CORPORATION

RPY GAMES

RTS SOLUTIONS

RUBICON FILM & MEDIA INC

RVE

SAT - SOCIÉTÉ DES ARTS
TECHNOLOGIQUES

SATWII SOLUTION

SAVINTE

SAVORMETRICS INC.

SBB

SCHEDULE101

SCRATCHVOX INC

SCUTO EVENTS INC.

SEED INTERACTIVE INC.

SEMAPHOR

SEN INC

SENSEQUAKE

SENSOR CORTEK INC.

SENTIOM

SERA4 LTD.

SHABODI CORP.

SHIP HAUL LOGISTIQUES INC

SHIPNOW LOGISTICS

SHOWFLOOR

SIA PARTNERS INC

SII CANADA

SINEXO

SKY

SKYGRID SOLUTIONS

SMARTCONE TECHNOLOGIES, INC.

SMARTONE SOLUTIONS INC.

SMATS TRAFFIC SOLUTIONS

SMATS TRAFFIC SOLUTIONS
INCORPORATED

SNAPSORT INC. (DBA SORTABLE)

SNOWM INCORPORATED

SOCIALBUS

SOFTDRIVE TECHNOLOGIES INC

SOLANA NETWORKS

SOLERTMIND

SOLID STATE OF MIND

SOLUTIONS ANAGRAPH INC

SOLUTIONS INFORMATIQUES INSO

SOLUTIONS MOBILE OPUS 2 INC

SOLUTIONS REXYS INC.

SOLUTIONS SANS FIL WIME

SOS INFO TECH

SOULROOMS INC.

SPACEBRIDGE

SPACECARD INC

SPACEISHARE INC

SPARK MICROSYSTEMS

SPECTRUM MOBILE HEALTH INC.

SPORTS AI

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SPOTEV
SPY POINT / VOSKER
SSIMWAVE
STAGE TEN
STAGEKEEP
STARIC INC.
STRATÉOLAB
STRATOS SOFTWARE INC.
STREAMSCAN
STREAMWORX.AI INC.
STRIPE STUDIOS INC.
STUDIO IREGULAR INC.
SUPPORT AÉRIEN EXO TACTIK INC
SURFACEID
SWIDGET CORP
SYNCSTATS
SYNERVOZ COMMUNICATIONS INC.
SYNGLI INC
SYSTEME VIREO
TAKDESIGN
TALEAM SYSTEMS
TAMVOES
TANDEM LAUNCH
TANDEMLAUNCH
TECHAUPOINT
TECHGUILDS CONSULTING
TECHNOLOGIES EMAWW INC
TECHNOLOGIES GREENASCOT INC.
TECHNOLOGIES IN A BLINK
TECHNOLOGIES LIVINGSAFE INC.
TECHNOLOGY TRACE INC.
TELENET COMMUNICATIONS
TEOPS CORPORATION
TERMONT
TESGO
THE CABLESHOPPE INC.
THE LEAP CORP.
THE PHENOMENA
THE WALLRUS / (ORANGERINE INC.)
THE WORKING GROUP INC.
THÉÂTRE ADVIENNE QUE POURRA
THINK DIRTY INC.
THINKRF
THOUGHTWIRE CORP.

TIDI URBAN DESIGN
TIERONE
TIERONEOSS TECHNOLOGIES INC.
TILIKUM MÉDIA
TINY BRAIN ROBOTICS INC
TOKIDOS (94275906 QUÉBEC INC)
TORNGATS SERVICES TECHNIQUES INC
TOTAL
TOUMORO
TREEHOUSE DIGITAL HEALTH INC.
TRIA
TROES CORP.
TRUXWEB
TRYON TECHNOLOGY LTD
TSI SERVICES MANAGEMENT INC.
(TSI-ECO.COM)
TUIO
UCREA
UKKO AGRO INC.
ULTRA-TCS ELECTRONICS INC
UPMORE TODAY INC
URBAN STALK INC.
UZINAKOD
VALQARI
VANADATA INC.
VARITRON TECHNOLOGIES INC.
VEREM INC.
VERSAGILIT INC.
VERSION 10 PRODUCTION INC
VIDEOLATITUDE
VIDEOLINQ
VIDEOSHIP
VINCI LABS
VIRGIL SYSTEMS
VIRGIL SYSTEMS
VIRTRO ENTERTAINMENT
VIRTUOLABS
VISAQ
VISION MÉTÉO
VISIONS HI-TECH
VITAL TRACER
VITALTRACER LTD
VOILA LEARNING
VOLTA TECHNIQUE INC.

VR VALLEY
VR7UAL INC.
VRAPEUTIC INC.
VUBBLE
VYOO
WALLRUS CREATIVE TECHNOLOGIES INC
WAPITEA
WATERLIX INC.
WAVEFORM ENTERTAINMENT INC -
MONTREAL
WAVESHAPÉ
WAVVE BOATING INC.
WEBCOACHS
WEBSISOFT
WEDSTLL™ INC.
WICKET INC.
WITTI INC.
WW8 HEALTH TECH INC
XESTO
XPERT SOLUTIONS TECHNOLOGIQUES
(XST)
XPERT VR
XYZ TECHNOLOGIE CULTURELLE
YABTRONIX
YBT SOFTWARE SOLUTIONS
YBT SOFTWARE SOLUTIONS
YRH TELECOM
YUSER INC.
ZEA
ZING5G COMMUNICATIONS CANADA INC.
ZONETI