Ontario BUSINESS REPORT

BUILDING A STRONGER MORE PROSPEROUS ONTARIO

SEPTEMBER 2007

Information and Communications Technology Is Right at Home in Ontario

Driven by world-competitive R&D hubs in Ottawa, Waterloo, and the Greater Toronto Area, Ontario's information and communications technology sector continues its steady growth.

The numbers paint the big picture. Canada places in the top five countries in information and communications technology (ICT) research and development. Canada has about 600,000 people working in ICT, and about half of that workforce is in Ontario. Close to 5 per cent of Ontario's entire labour force is working in the ICT sector, the highest proportion in the country.

The province's dominant role in the world ICT sector is due to several factors. Ontario's colleges and universities produce graduates who are often in demand the minute they complete their education. Those educational institutions maintain close ties with the research and business communities, moving innovations to market with the help of Ontario Centres of Excellence for Communications and Information Technology and Photonics. The Ontario Research and Innovation Optical Network (ORION) speeds collaboration, both within the province and worldwide.

These are some of the reasons that Ontario draws the lion's share of R&D investment in ICT. In 2005, seven of the top 20 corporate R&D investors were ICT companies based in Ontario. The list includes world leaders like AMD Canada, Cognos, Research In Motion, and IBM Canada. At the other end of the R&D investment scale, Ontario continues to nurture promising start-ups such as SlipStream Data Inc. and ViewGenie Inc., two recent winners of the Ontario Premier's Catalyst Awards for excellence in innovation.

As a recent report prepared by the Information Technology Association of Canada notes, this continued R&D investment by firms large and small "represents a tremendous natural resource for Ontario and a springboard for 21st century prosperity. Not only does this activity produce persistent innovation, high-value exports and high-value employment, it also provides a critical foundation for the province's broader innovation ecosystem."

The ICT sector is present in almost every corner of Ontario, but the bulk of activity is focused in three world-renowned ICT clusters: Ottawa, Waterloo, and the Greater Toronto Area. Each cluster focuses on specific areas of ICT, creating prime conditions for R&D collaboration, synergy and spin-off companies.

The Greater Toronto Area's ICT cluster is now one of the top three in North America, with a labour force of over 148,000 ICT workers in 3,300 firms. One of the region's largest private sector employers, it achieves annual sales in the $30 billion range, with exports of about $6 billion. Industry leaders like Celestica, Xerox, Sony, IBM, CGI, Oracle, Allstream, MDS and Hewlett-Packard Canada join dozens of smaller firms representing all areas of ICT activity, including manufacturing, software and systems development, and ICT services.

The Ottawa region has long been Ontario's telecom powerhouse, leveraging a combination of university, corporate and government research strengths to provide tremendous opportunities for partnerships and collaborations. With companies like Nortel, JDS Uniphase, Alcatel-Lucent, Cisco Systems and Mitel, Ottawa is recognized worldwide for telecommunications software and equipment, computer software and photonics. With more than 100 companies in its photonics cluster, Ottawa is a rising star in that sector, attracting the best in R&D, investment, industry and education.

Selected as the 2007 Intelligent Community of the Year by the prestigious Intelligent Community Forum in New York, Waterloo's strengths are known in research and business communities all around the world. With a focus on microelectronics, computer software and wireless telecom, Waterloo is home to Research In Motion, Open Text, Dalsa Corporation and many more ICT leaders. The University of Waterloo's Research and Technology Park, a $214 million partnership among governments, the University of Waterloo and the private sector, provides over 1.2 million square feet of office space and a ready supply of graduates and researchers.

With these three centres, each a world leader in its own right, Ontario stands well above most other jurisdictions in the ICT sector. With continued investments in education, infrastructure, R&D, and commercialization programs, the province's vibrant ICT sector is well positioned for the future.

Learn more about Ontario's ICT sector

Ontario Ministry of Research and Innovation	www.ontario.ca/innovation
ITAC (Information Technology Association of Canada for Ontario)	www.itacontario.com
Information and Communications Technology Council	www.ictc-ctic.ca
Ottawa Centre for Research and Innovation	www.ocri.com
Ontario Research and Innovation Optical Network	www.orion.on.ca
Canada's Technology Triangle	www.techtriangle.com
National Sciences and Engineering Research Council of Canada	www.nserc.gc.ca
IMAT (Interactive Multimedia Association of Canada)	www.imat.ca
CATA (Canadian Advanced Technology Alliance)	www.cata.ca

New Government Service Creates > Procurement Opportunities for Ontario Businesses Abroad

Do you want to take advantage of new business opportunities abroad? Link to the Ministry of Economic Development and Trade's website—www.ontario-canada.com/ontcan/en/progserv_main_en.jsp—for access to potential procurement opportunities for major national and world events, including the 2012 London Olympics, the 2010 Shanghai World Fair, and the Alberta Oils Sands.

Around the ICT Roundtable

Government and Industry Working to Strengthen Vital Sector

Ontario remains the heart of Canada's information and communications technology (ICT) industry. However, faced with increased competition for talent and resources, Ontario's ICT industry and the provincial government are working together to improve the growth, sustainability and competitiveness of Ontario's ICT sector.

A series of Ontario ICT Roundtable discussions, chaired by Economic Development and Trade Minister Sandra Pupatello, have brought together government officials and ICT executives to discuss industry challenges and develop collaborative solutions.

At the first Ontario ICT Roundtable held on March 19, Minister Pupatello met with industry executives and members of the Information Technology Association of Canada (ITAC) to listen to industry concerns. At this meeting, Pupatello challenged industry executives to identify the main issues affecting the ICT sector and begin developing solutions to sustain, grow, and attract ICT activity in Ontario.

Working groups of ICT executives developed an industry-led action plan focused on sustainable growth and competitiveness. Industry representatives identified four priorities impacting Ontario's ICT sector and presented their long- and short-term recommendations at a roundtable discussion on May 31. The four priorities are:

> **Innovation and Industrial Strategy**—The need for greater collaboration between industry and the academic community in ICT research. A call for greater collaboration between industry and government to link ICT strategy with government priority areas.

> **Productivity**—Promote greater use of ICT technology among small and medium-sized businesses.

> **Talent**—Develop initiatives to train and retain skilled ICT professionals and encourage more women to enter the ICT field.

> **Procurement**—Use Ontario's procurement policies to promote economic development, innovation and investment in ICT sector.

Minister of Health and Long-Term Care George Smitherman was also in attendance at the May 31 meeting to lead a discussion on issues in health and to learn about potential ICT solutions.

On July 25, Minister Pupatello, joined by her colleagues Training, Colleges and Universities Minister Chris Bentley and Education Minister Kathleen Wynne, met with a group of ICT executives and ITAC at the latest roundtable discussion. The meeting focused on proposed long- and short-term recommendations developed by the industry to address challenges in developing and retaining ICT talent in Ontario.

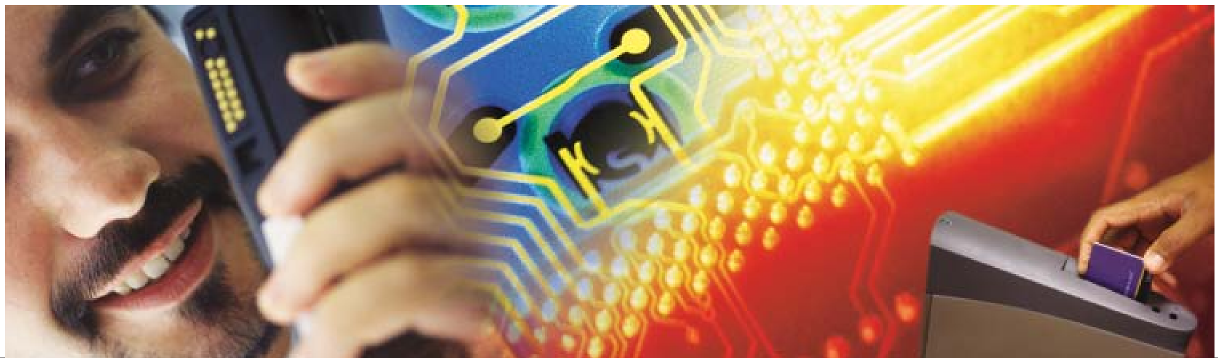
Without a strong supply of qualified workers, many ICT businesses are simply unstable. The following recommendations were proposed by the ITAC to address the talent shortage in Ontario:

- The creation of a long-term talent strategy.
- Identification of trends in enrollment in technology disciplines (math, sciences, technology).
- Improved integration of immigrants with ICT qualifications.
- Ensuring Ontario tax and policy instruments enable the attraction and retention of ICT talent.

These recommendations will be further explored in future roundtable discussions.

The ICT industry plays a big role in the provincial economy, accounting for over $30 billion of Ontario's GDP and directly employing 244,000 Ontarians. A strong ICT sector creates high-value jobs and drives industry research and development.

Collaboration between the Ontario government and the ICT sector will help to keep Ontario at the centre of ICT activity in Canada and to position Ontario's ICT industry front and centre in a competitive global marketplace.



Ontario's Three ICT Clusters— Creating Powerful Business ADVANTAGES

1 Ottawa

Population: 1.2 million

Number of high-tech companies: 1,600—with particular strength in telecommunications equipment and networking, computer software and photonics

Annual ICT revenues: $10.4 billion

Size of high-tech workforce: 64,500

Big names include: Adobe, Alcatel-Lucent, Calian Technology, CGI Group, Cisco, Cognos Inc., Corel, EDS Canada, Hewlett-Packard (Canada) Ltd., JDS Uniphase, MDS Nordion, Mitel Networks, Mosaid, Nortel Networks (R&D)

Educational institutions include: University of Ottawa, Carleton University, Algonquin College, and Université du Québec en Outaouais

Technology transfer facilities: University of Ottawa, Carleton University, National Research Council

Living there: The nation's capital is a delightful blend of English and French, historic and modern, ceremonial and casual—where the motto is "work hard, play hard." Ottawa has an active arts and cultural life, vibrant nightlife and scores of good restaurants, and a short drive from the city's centre are an expanse of lakes, hiking and biking paths, and cross-country and downhill ski trails.

The buzz on Ottawa: "The interesting telecom-based innovations coming out of Ottawa through the influence of companies like Nortel Networks, JDS Uniphase, Mitel and others are what put Canada's ICT industry on the map. Today two-thirds of U.S. venture capital investment in Canada goes to Ottawa tech firms. The city has a talented, technically rich workforce, a growing entrepreneurial environment supported by first-class universities and a high standard of living—all of which translates into a great investment location," says Bernhardt Zeisig of VIMAC Ventures of Boston.

2 GTA Greater Toronto Area

Population: 5.3 million

Number of high-tech companies: 3,300+—with leaders in every sector and national dominance in digital media and Internet

Annual ICT revenues: $25 billion

Size of high-tech workforce: 148,000

Big names include: Alias, Allstream (formerly AT&T Canada), ATI Technologies, Bell Canada, Call-Net Enterprises, Celestica, Cinram, EDS Canada, HP Canada, Hummingbird Communications, IBM Canada, IMAX, Microsoft Canada, Nortel Networks (world headquarters), Oracle, Rogers Communications, Siemens Canada, Telus, Xerox Canada

Educational institutions include: University of Toronto, York University, Ryerson Polytechnic University, University of Ontario Institute of Technology, Sheridan College, Seneca College, Centennial College, Humber Institute of Technology & Advanced Learning, George Brown College

Technology transfer facilities: Innovation Synergy Centre, IBM Centre for Advanced Studies

Living there: The UN has designated Toronto the "world's most multicultural city." Toronto has 5,000+ restaurants, a symphony orchestra, opera, ballet and theatre, major league hockey, basketball and baseball, and 20,000 acres of ravines and parks.

The buzz on Toronto: "The GTA's position as one of North America's premier ICT centres will continue to be supported by innovative projects, a diverse and flexible economy, a dynamic corporate presence and an educated, technologically savvy and creative workforce. It is this collective infrastructure that will make the GTA's ICT cluster attractive to global industry players, suppliers and investors and will ensure that it is poised for a new period of growth," reports E&B Data Inc.

3 Waterloo Region

Population: 500,000

Number of high-tech companies: 400—with particular strength in software, microelectronics and telecommunications

Annual ICT revenues: $4.6 billion

Size of high-tech workforce: 15,000

Big names include: Agfa Healthcare Informatics, ATS Automation Tooling Systems, Christie Digital, COM DEV International, DALSA, Inscriber Technology, MapleSoft, Open Text, NDI, Research In Motion, Sybase (iAnywhere Solutions) and SiRiFIC Wireless

Educational institutions include: University of Waterloo, Wilfrid Laurier University, University of Guelph, Conestoga College Institute of Technology and Advanced Learning

Technology transfer facilities: Communitech Business Accelerator, UW Innovate Inc., University of Waterloo Research + Technology Park Accelerator

Living there: Set among rolling hills, with the Grand River running through it, Waterloo Region has a strong sense of community with a deeply rooted entrepreneurial spirit. Known for its music, theatre and art, the area also offers every kind of outdoor activity—hiking, biking, boating, camping, fly-fishing—and it's just an hour from Toronto.

The buzz on Waterloo: The Waterloo Region, known as Canada's Technology Triangle, consists of Cambridge, Kitchener and Waterloo. "The region, with an attractive location, available real estate, excellent educational establishments and highly educated workforce, has been attracting fast-growth, innovative companies, which, in turn, are attracting people. In short, a virtuous circle is in place," reports the Bank of Montreal, which predicts the region will be one of the country's growth leaders over the next several years.

Nurturing ICT Start-ups
to Become Industry Stalwarts

The Ontario Centres of Excellence (OCE), Centre of Excellence for Communications and Information Technology has helped dozens of Ontario companies take root and grow with targeted commercialization programs.

The start-up stories are now very familiar: Open Text, RIM, Dalsa, Mitel, Cognos, and so on. The list is long. Ontario has a tradition of developing unique ICT ventures that grow to be industry leaders. In Ottawa, OCE's Centre of Excellence for Communications and Information Technology is working with tomorrow's tech stars across the province. Not all will become the next RIM, but many will become successful companies that create jobs, sell products and services in export markets, and help build Ontario's economy.

"We've spun off about 25 companies over the past five years alone," says Hindal Mirza, a business development manager at the Centre. "Approximately $4 million in government funds has generated about $100 million in ICT investment in Ontario. It's also resulted in new jobs for several hundred people."

The Centre co-invests in R&D and commercialization for leading-edge technologies, and helps move the results to market through existing companies or spin-off enterprises. Funded through the Ministry of Research and Innovation, the Centre invests in research on everything from wireless communications and data compression to IT in health and medicine, software design and education and learning. Staff expertise and experience have produced a consistent track record of successful commercializations and built strong partnerships with the research community, investors, and industry.

Mirza cites Distil Interactive, an Ottawa company that he has worked with since it was a fledgling start-up back in 2005, as an example of how the Centre works closely with a company throughout its development. Distil's digital games create virtual environments where players learn and demonstrate skills and behaviours for anything from interviewing techniques to emergency response procedures. The company's products take e-learning a step further, with automated teaching and testing solutions that enhance personnel skills training and assessment. One recent customer is the Canadian Standards Association (CSA), which is teaming up with Distil to create learning games for their training programs in complex areas like ISO.

"We started with an investment of $50,000 to create a partnership between Distil and researchers at the University of Ottawa's Text Analysis and Machine Learning Group," says Mirza. "The results were very encouraging, so OCE made a further investment of $250,000 through our Accelerator Investment Program. That helped them attract a $700,000 investment from GrowthWorks Canadian Fund. That was in late 2006. Today, Distil Interactive has 25 employees, and they just received another $2.2 million investment from GrowthWorks in June (2007)."

The recent private sector investment is proof positive of the wisdom of the Centre's approach. In just over two years, Distil has been transformed from an innovative concept to a successful developer of new media platforms. The company has released five products and signed several global distribution agreements.

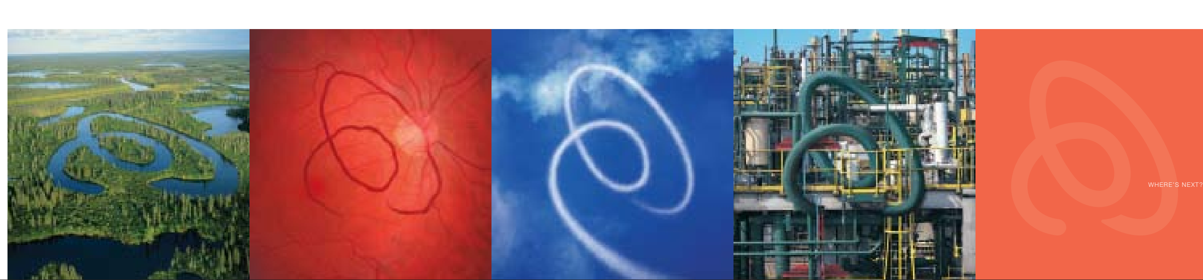
Distil Interactive represents the leading edge of a new wave of innovative Ottawa-based technology companies, according to Tim Lee, senior vice-president at GrowthWorks Capital.

"Their proprietary data-mining technology has benefited tremendously from the nexus of Ontario Centres of Excellence, academia and private industry," he says. "Since our initial investment, the company has made strides in its initial market traction, and we look forward to working with them as they continue to execute their go-to-market strategy."

The Centre's involvement also continues to support research. Dr. Jelber Sayyad Shirabad, a post-doctoral fellow with the University of Ottawa, has worked as the lead researcher since the beginning of the project, under the direction of renowned machine learning and data-mining expert Professor Stan Matwin. Distil is also partnering with OCE on another project with Professor Yongyi Mao at the University of Ottawa.

"Distil Interactive is an excellent example of the economic impact that can result when OCE brings industry need together with research expertise," says Mark Romoff, President and CEO, Ontario Centres of Excellence. "Not only is the company now positioned to contribute to Ontario through employment and revenue generation, it is also enhancing the industry-relevant skills of talented researchers."

Website: **www.oce-ontario.org**



COGNOS®

Cognos Uses Its Own Product to Become the Market Leader

In 2003 Cognos was catching its breath after a decade of explosive growth.

The Ottawa-based global provider of business intelligence (BI) was emerging from a decade of phenomenal growth that had seen its revenues skyrocket 450% and its workforce increase 300%. The 35-year-old company had 49 sales offices in 17 countries. And its customer base had doubled to 22,000.

"We were in the heart of a red-hot market," says CFO Tom Manley.

But change was on the horizon. BI, the use of reporting and analysis as a means of improving corporate performance, had formerly defined the industry; companies were integrating BI with two new tools: scorecarding, to monitor performance and establish accountability, and enterprise planning software, to drive performance and build predictability. These components combined to create corporate performance management (CPM).

At the same time, Cognos was also facing bigger, stronger rivals created by consolidation in the industry—four major competitors had quickly merged to form two new companies—and new regulatory pressures, particularly more stringent financial disclosure in the U.S. brought on by a wave of corporate scandals.

Looking at the new forces reconfiguring its industry, Cognos decided it had to manage its own strategic performance more effectively if it was to keep its momentum.

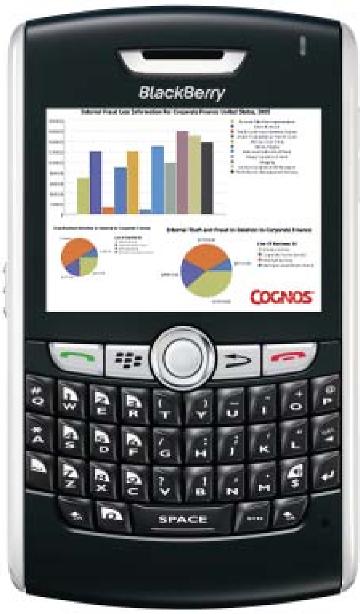
The company began by defining a bold new strategy: to transform itself from a BI tools provider to the CPM solutions market leader. To execute it, Cognos turned to one of its own products: Cognos Metrics Manager, a scorecarding application the firm had been offering its customers since 2002.

"Applying our own solution would not only help us execute our new strategy, it would help us to understand first hand what our customers experienced as they used our products to improve their corporate performance," says Manley.

The results were impressive. The company's annual revenue growth increased 20% between 2002 and 2004 and net income jumped from $19.4 million to $100 million in the same time frame. Workforce turnover decreased and shareholder returns exceeded 100%.

Cognos was also able to identify and weed out initiatives that didn't support its corporate strategy—and perhaps most important of all, the company, which is now firmly positioned as the leading expert in performance management, gained a new focus on where its business is headed, not where it's been.

It's an achievement that also earned Cognos recognition in the Balanced Scorecard Collaborative's Hall of Fame. (Balanced Scoreboard Collaborative is dedicated to the worldwide awareness, use, enhancement, and integrity of the Balanced Scorecard as a value-added management process.)

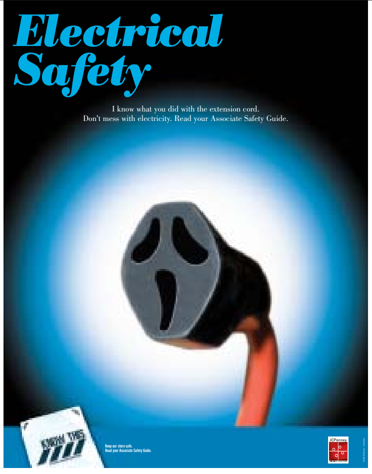


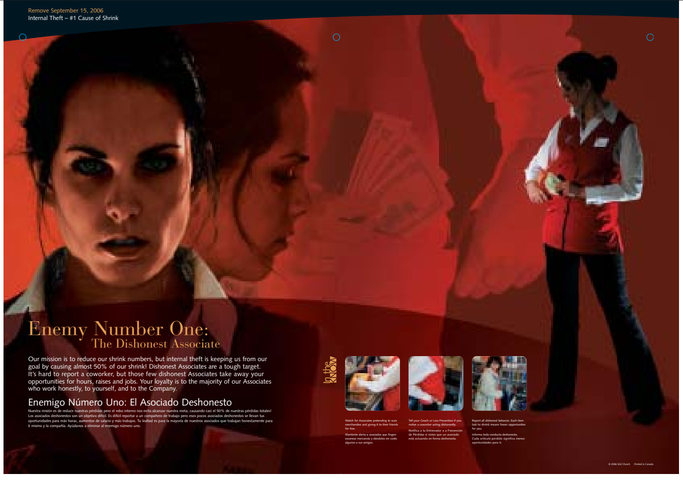
So what's next for this global powerhouse?

"As enterprises around the world move to adopt performance management, we'll continue to align and direct our products, support and services towards helping our customers take their performance to the next level," says CEO Rob Ashe.

That means helping customers simplify information technology complexity, bringing performance management to the platforms and places users need it most, such as the Rim BlackBerry smartphone, and creating more industry-specific applications.

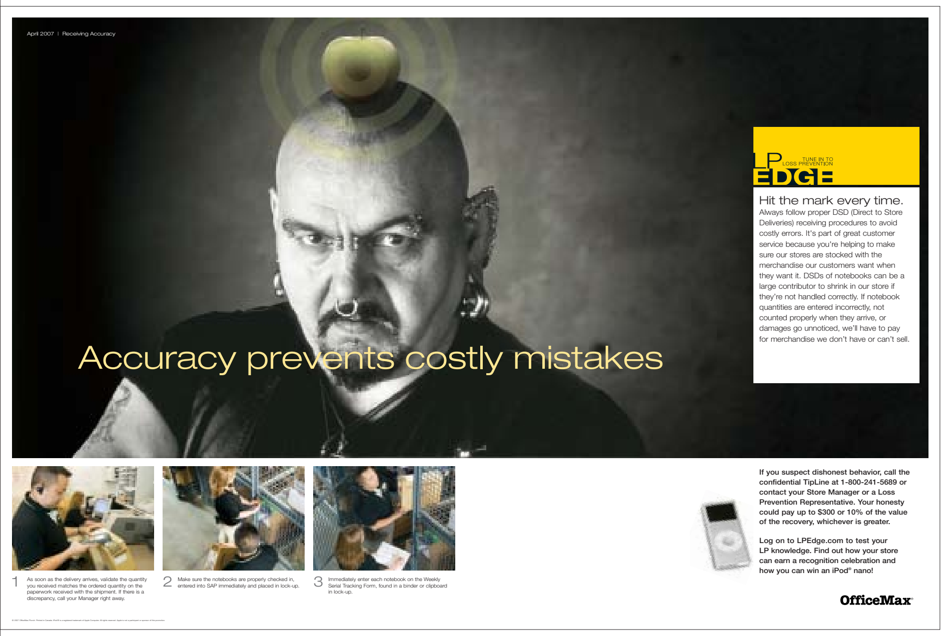
Website: **www.cognos.com**





Punch Takes the Retail World by STORM

Punch Integrated Communications may be one of the newer entrants to the specialized field of loss prevention and safety communications, but it's outstripping its competitors. In the last 18 months alone, the Cambridge, Ontario-based company has signed up 13 major retailers, including Sears US, Publix, Coca Cola, JC Penney, Loblaws, Nordstrom's and Purolator.



Punch's specialty is developing research-driven communications programs designed to get employees to do what their employers want.

"We profile the associates and look at their attitudes and beliefs about the company's policies and culture to be sure we understand the thinking behind their behaviour," explains Ric Agostini, vice president of client services. "With that information in hand, we're able to produce a targeted, custom communications program to prevent things like shoplifting and internal theft and improve store safety."

With retailers experiencing significant merchandise losses—and equally significant expenses from lawsuits involving store safety issues—it's a growing business.

Punch began 10 years ago as a general marketing and communications agency with a small interest in the loss prevention field. Then, in 2003, the company made a strategic decision to focus its energies on loss prevention and safety.

"The market was, and is, much smaller, but there are also fewer competitors," says Agostini. "We were confident that, with our capabilities, we could capture a significant portion of it."

The gamble paid off. In just four years Punch's client list has become a "who's who" of Fortune 500 companies. Approximately 90 per cent of its business is with large American retailers who've discovered that Punch's programs—which typically involve some combination of printed materials, videos, web tools and incentives—work.

In addition to winning clients, Punch has captured a slew of awards, including four Global Traders Awards for innovation and market expansion. The company has also made the Profit 100 list for the "Fastest Growing Companies in Canada" the last four years in a row.

Interestingly, Punch hasn't had to spend a lot of time or money promoting itself. Its reputation has grown by word of mouth.

According to Agostini, pushing the boundaries has been instrumental to the company's success. "We're always looking for new and better ways to craft the messages," says Agostini, who notes that Punch employs just 44 people. "We hire the best researchers, writers, project managers and designers.

"And to be sure our process works every time, we also develop a customized measurement program that tracks the changes in employee behaviour and measures their compliance." It's clearly a winning formula.

Website: **www.punch.ca**

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The focus of this newsletter is on business—successes, news, trends, opportunities, challenges and issues affecting Ontario's business climate. Information is drawn from ministries and agencies across government and from other public sources believed to be reliable. All efforts are made to ensure timeliness and accuracy.

La version française du *Ontario Business Report* est disponible sous le titre *Rapport d'activités de l'Ontario.*

We want to hear from you.

Comments and contributions are welcomed. Please write us by mail, fax or e-mail.

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