TORONTO

STAFF REPORT
ACTION REQUIRED

Information and Communications Technology (ICT) Initiatives Update Report

Date:	May 9, 2012
To:	Economic Development Committee
From:	General Manager, Economic Development and Culture
Wards:	All
Reference Number:	P:/2012/Cluster A/EDC/ECON DEV/May/1205-019

SUMMARY

The Information and Communications Technology (ICT) industry is a key strategic sector in Toronto. It is large (with over 175,000 workers and 11,500 firms), growing, innovative, young and generates over $52 billion in revenues annually.

The ICT sector includes a wide range of related sub-cluster businesses and fields from highly technical super computer applications for genome research to personal mobile devices and applications and gaming. It consists of a combination of both manufacturing and service industries which electronically capture, transmit, and display data, information and images. New ICT applications are leading to the convergence of traditional businesses, such as technologies developed by and for gaming applications being redeployed into healthcare. Due to the proprietary nature of these cutting edge technologies, many ICT businesses operate discretely and shun public exposure. As a result obtaining detailed statistical data and information about some industry segments is challenging.

In addition to being a major industry in and of itself, the ICT sector is also a critical enabler that supports virtually every other sector from financial services to film and renewable energy to biotechnology. A strong ICT sector is therefore essential to improving the overall economy of the city. Retaining, developing and attracting talent and ensuring an adequate supply of affordable space are critical to strengthening and expanding the ICT sector in Toronto.

As requested by the Economic Development Committee at its meeting on November 15, 2011, this report provides an update on the status of the industry.

RECOMMENDATIONS

The General Manager, Economic Development and Culture recommends that:

1.   The Economic Development Committee recognize the Information Communication &Technology (ICT) sector as a key driver of Toronto's economic prosperity and direct the General Manager, Economic Development and Culture to continue to support growth of this sector;

2.   the Economic Development Committee endorse the initiatives that staff are working on in partnership with the industry to attract and retain ICT talent in Toronto; and

3.   the Economic Development Committee direct the General Manager, Economic Development and Culture, in collaboration with the Chief Planner & Executive Director of City Planning and Treasurer to explore initiatives to increase the supply of affordable office and studio space for new and emerging ICT start-up enterprises.

Financial Impact

There are no financial impacts resulting from the adoption of this report.

DECISION HISTORY

The Economic Development Committee requested the General Manager, Economic Development and Culture, to report back in mid-2012 on the state of the Information and Communications Technology (ICT) industry and the success of initiatives to promote and strengthen the ICT sector including labour force trends.
http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2011.ED9.5

ISSUE BACKGROUND

The ICT industry is an often overlooked sector of Toronto's diverse economy. There are a handful of Canadian firms such as RIM, Rogers, Telus and Bell that generate widespread public attention. Most of the larger international ICT companies, such as IBM, Microsoft, Linked In, Facebook and Google also have a presence in Toronto. However, the vast majority of companies in Toronto are small and medium sized enterprises (SMEs) that employ up to 50 workers and perform specialized software development. These smaller ICT firms are increasingly important to the economic growth of the city not only because they help to strengthen and expand the ICT sector (often through mergers and acquisitions) but also because they are at the core of innovative technology that enables so many other key industry sectors to grow.

One of the key challenges facing the Toronto ICT industry is the ability to retain these smaller companies and help them to grow within the city. Retaining, developing and attracting talent and ensuring an adequate supply of affordable space are critical to achieving this outcome. Toronto's diverse, creative and innovative labour force makes it a hotbed for new ideas and consequently the target of both international recruiters and corporate acquisition professionals.

COMMENTS

The ICT sector is a bright spot in Toronto's employment picture. ICT employment is more concentrated in the Toronto Census Metropolitan Area (CMA) than anywhere else in Canada and accounts for 29% of ICT employment in the country. Since 2009, the start of the global economic slowdown, employment in the ICT sector within the Toronto CMA has grown from 161,000 to 175,480 employees, an increase of 14,480 workers or 8% growth.

Last month (April 2012) the Start-up Genome project, *On How The World's Top Tech Hubs Stack Up*, released new data and analysis on the relative performance of the various start-up hubs around the world. Toronto is ranked 4th globally following Silicon Valley, New York City, and London, UK. Contributing factors for Toronto's start-up success are talent and the increase in ICT incubators. Incubators such as *Multiplicity, Innovation Gaming Inc GBC, Humber Incubator*, *Incubes* (private), *Driven Accelerator Group* (private), *Jolt* and *MaRS Commons* have contributed to Toronto's robust start-up community.

Additionally, *Modis*, a leading human resource provider for the ICT industry, recently identified the top 12 cities in North America for ICT professionals to find employment. Toronto was ranked the second best city to look for an IT job ahead of San Francisco (Silicon Valley), New York, and Boston. Toronto was the only Canadian city ranked in the top 12. The *Modis* rankings list also indicate the cities with highest potential for ICT job growth in the coming year based on the volume of job openings over the past six months, as well as general assessment of the overall economic environment in each market.

The success of Toronto ICT firms is also reflected in the annual *Branham300* rankings. The *Branham300* highlights the top Canadian ICT companies, and multinational ICT companies operating in Canada, ranked by revenues. The report is circulated nationally and distributed internationally through Canadian embassies and consulate offices. The Toronto region dominates the 2012 *Branham300* report rankings. Of the top 250 ICT companies, 84 or more than a third are located in the GTA and 46 of the top 250 are located in the City of Toronto.

The combination of many small firms with diverse abilities and interests, operating in globally competitive, hyper-speed environment has produced an industry that is highly collaborative by nature and necessity. While the industry is highly collaborative, it is also highly organic and fluid with firms and individuals coming together on a continual

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basis to undertake projects, breaking up upon project or task completion, and then reforming with other partners to take on new projects.

Although efforts to establish a centralized overarching association model (SMART Toronto was one such attempt) have proven futile for a variety of reasons, the industry has embraced an open, flexible and time limited ("swarming") approach rather than the traditional institutional boardroom model used in other industries.

Staff work with other orders of government and the private sector to support networking activities, such as Mesh, FITC, GameOn, Technicity and others that link firms in the 40 ICT industry associations and organizations. City staff have adapted their approach to fit with the ICT sector business model and to facilitate its preference for organic engagement and partnership development through a number of activities and projects. The City's goals are to build sector cohesion, stimulate employment growth, new firm formation, expansion and investment attraction. On any given day there are numerous ICT events, gatherings and meetings of professionals and developers who are engaged in the business of commercializing innovation.

This dynamic business environment is one of the reasons Microsoft chose Toronto as the host city for its upcoming Microsoft Worldwide Partners Conference (WPC) from July 8 to 12, 2012. This major event is expected to attract over 15,000 delegates from 130 countries and will be held at the Metro Toronto Convention Centre (MTCC) and the Air Canada Centre (ACC). The total economic impact of the conference is expected to exceed $52 million.

Moreover, in bringing this major conference to Toronto, Microsoft is also working with City staff to develop a "Legacy Project". The planned project would reach out to youth through Operation Springboard, a not-for-profit organization that will utilize an array of donated Microsoft operational and business software to train at-risk youth to help them achieve employment potential.

With the City of Toronto's overall unemployment rate at 9.2% (and the Toronto region at 7.3%) and with a youth (15 to 24 years) unemployment rate now at 14.8%, these types of youth outreach programs, proactively nurturing the health and vitality of the ICT sector and developing the labour force of tomorrow are essential for economic success.[1]

Industry demands for ICT workers are ever increasing but the supply of qualified candidates has not kept up with demand.[2] The Information and Communications Technology Council (ICTC) has estimated that employers across Canada will hire 106,000 ICT workers over the next 5 years. About one-third, or approximately 35,000 of those workers are expected to be hired by employers in the Toronto region.

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[1] Statistics Canada Labour Force Survey, March 2012

[2] ICTC Outlook for Human Resources in the ICT Labour Market, 2011-2016
http://www.ictc-ctic.ca/Outlook_2011/index_en.html

Sector development work involves a variety of strategic initiatives. Keeping in constant contact with stakeholders and influencers and lending support on key projects are the hallmarks of successful economic development. Some of the projects staff are involved with include:

Toronto Homecoming 2012 scheduled for June 7-10, 2012. The Toronto Homecoming organization is focused on bringing talent back to Toronto from the United States to supplement the city's increasing ICT talent needs.

The International Gaming Development Association (IGDA Toronto) and Toronto Jam (TOJam). Now entering its 7th year, TOJam is a weekend event where participants create computer games. In its first year TOJam hosted less than 50 participants. This year's event already has over 400 registrants. It will be held at the George Brown College School of Design & Gaming Incubator from May 11 to 13, 2012.

Technicity provides a forum for senior ICT representatives to share opportunities, explore partnerships and generate actions that mobilize and strengthen the sector. Last year, over 250 participants discussed how to continue the momentum among the young entrepreneurial ICT companies and how to support the emerging pipeline of talent in the city. As a follow up to this event the company Mozilla Firefox organized a 'youth as webmakers' meetup for secondary school students. Over 100 students participated in the event and exhibitors featured various technology camps for students, particularly for female high school students.

Talent Forum was a City and Toronto Financial Services Alliance (TFSA) employer-educator discussion forum on building a talent pipeline to meet the ICT skills needs of Toronto's financial services sector. The event was held in February 2012 with over 50 representatives from the ICT and financial services sectors in attendance.

With the increasing demand for ICT personnel, it is also critical to create awareness of future job opportunities in the sector to secondary school students. The City supports various outreach opportunities. For example, on April 27, 2012 over 200 female secondary students participated in a full day of activities at Seneca's Newham campus.

Staff are also engaged in the following activities which help to promote ICT careers:

- The Youth Employment Partnerships (YEP) program staff in Social Development, Finance & Administration (SDFA) engage youth in discussions about ICT careers.

- Toronto Employment and Social Services (TESS) and EDC staff work to match Toronto residents with jobs. This also provides linkages with newcomers who have ICT experience with employers.

The ICT industry has been a willing and active partner is all of these initiatives.

Mobile App Development

Toronto is touted as a new centre for mobile application (app) development. Some recent takeovers, such as Zynga acquired Five Mobile (now known as Zynga Toronto) in July 2011 and Motricity acquired Toronto's Adenyo in January 2011, attest to this phenomenon.   These firms have made the decision to keep their locations in Toronto largely due to the ardent ICT environment found here.

However, Toronto cannot rest on its laurels. With all of the ICT activity that is fervently swirling throughout the city keeping the momentum up is key to staying at the forefront of industry trends and excitement. Investing in marketing programs that generate global awareness of the Toronto brand is of vital importance for the city and the country.

Computer Gaming

Toronto's computer gaming scene is unique when compared to the landscape of Montreal or Vancouver. While larger studios make up the bulk of the industry to the east and west, Toronto is host to a growing "indie scene" that is retaining talent and starting to make a name for itself by focusing on smaller teams with shorter development cycles. Toronto has approximately 75 to 100 smaller (less than 50 employees) game companies. These small firms are an important source of growth. For example, XMG Studios, a mobile game developer that in just two years has grown from 10 people to over 50. In keeping with industry trends it works on smaller mobile projects that have shorter development cycles than is typically seen with console gaming studios. For many of their employees, it's their first job in the industry.

Anecdotally, Capybara Games is a studio that was started initially by 13 people who met at an *IGDA Toronto* meet up. For the first two years of operations, Capybara made mobile games in their spare time while most of the staff worked full-time jobs. Now, Capybara employs over 25 people. Larger game companies like Ubisoft, Gameloft, and TecmoKoei Canada have also chose to locate in Toronto and help to anchor the industry here.

Start-Ups and Incubators

Toronto's post secondary institutions are focusing more on game development and are working cooperatively with industry and with each other. Most recently, U of T and OCAD University co-produced *Level Up* an event where students from a variety of local post secondary game programs featured their work to the public to gain valuable feedback.

Other community-focused endeavours include *Dames Making Games*, *Ladies Learning Code*, the *Hand Eye Society* and *Gamercamp* (now entering its 4th year).

The robust tech start-up community has benefitted from involvement in city supported and not-for-profit incubators. In response to the increased activity by start-ups, both not-for-profit and private sector organizations have been adding incubation capacity. MaRS, for example, recently announced the creation of *Jolt*.

Jolt is a new technology accelerator dedicated to building high-growth web and mobile companies that promise to transform the way consumers and enterprises connect, work and play. *Jolt* will select up to 15 high-potential start-ups annually, providing them with space, seed financing and mentorship, as well as access to partners and some of the top angel and venture capital (VC) investors in the industry. The goal of the program is to accelerate market validation and, in turn, help these companies secure the capital and talent necessary to scale efficiently.

Newly established private sector incubators include *Multiplicity, Incubes*, and the *Driven Accelerator.* Extreme Ventures Partners, a VC firm, started extreme university two years ago and continues to expand its services to start-ups. Extreme Ventures offers two additional programs, *Xtreme Labs* and *Extreme Start-ups*. Each cohort of five teams will receive $50,000 in start up funds and following the 12-week mentorship program, will receive an additional $150,000 in funding.

Start-ups have also been active in the incubators housed in Toronto universities and colleges. Ryerson's Digital Media Zone (DMZ), OCADU's Mobile Experience Innovation Centre (MEIC), and George Brown College's Game Design and Digital Media Incubator are providing services to the entrepreneurial ICT community.

CONCLUSION

The ICT sector in Toronto is multi-faceted and complex. Most global brand ICT companies have a presence in Toronto along with a large number of SMEs and a robust and vibrant start-up community. The sector provides ICT services to virtually every other industry in the city and, in doing so helps Toronto compete globally on many levels It also provides an important platform for research and development and expansion of the knowledge-based economy that will continue to generate future employment and growth.

The sector continues to grow rapidly, yet despite these advances more can be done to assist the industry to expand. In particular, retaining, developing and attracting talent and ensuring an adequate supply of affordable space are critical to the sustained, long-term success of the ICT sector. City staff have worked with the sector to reach out to youth, women, immigrant and other groups as well as colleges and universities to help match the industry demand for creative talent with residents seeking employment. It is important these initiatives continue.

As a result of their own success, many of the existing high-tech incubators in the city are now at or near capacity. Their graduates need to find affordable commercial space to expand their operations before they are lured away to other jurisdictions. By moving into

new spaces, these graduates would free-up incubator space for new start-ups, thus allowing the economic growth cycle to continue. The private sector is fully onboard to partner with the city on a variety of initiatives to attract youth, develop talent and secure space.

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