

GLOBALLY-RECOGNIZED CLUSTERS IN THE TORONTO REGION: WIRELESS & RFID TECHNOLOGIES

THE TORONTO REGION IS ...

- The third largest ICT cluster in North America with a workforce of 156,000 in related information technology sectors
- A growing hub of more than 200 companies that provide wireless and RFID products and services, including: Ahearn & Soper Inc., BCS, Certicom, COM DEV International, Communication and Power Industries, Ericsson Communications Canada, GlobeStar Systems, Mine Radio Systems, MyThum Interactive, Nortel Networks, Omron Canada Inc., Psion Teklogix Inc., Redline Communications Inc., Research in Motion (RIM), Tertec Enterprises, Tira Wireless, Weber Marking Systems and Xmark Corporation
- Ranked the #4 region in North America for scientific impact on the subject of wireless and RFID, based on the number of citations per publication
- Home to 130 university and college programs in engineering and computer science related programs that produce a highly-educated and highly-skilled workforce:
 - more than 3,600 graduates (all levels) in wireless and RFID programs

ADVANTAGES

- A world-leading economic region:
 - Ranked #1 for the soundness of its banking system by World Economic Forum (Global Competitiveness Report 2008-2009)
 - Ranked #3 in North America by MasterCard's Worldwide Centres of Commerce (2008)
 - Ranked #7 Top City Regions of the Future by Foreign Direct Investment magazine (2009)
 - Ranked #10 of the World's Top Global Cities (Global Cities Index (2008)
 - Ranked #10 most economically powerful city by Forbes.com (July 2008)
- 7.4 million people live in the Toronto Region, making it the 4th largest urban region in North America
- Immigration responsive to company needs:
 - Uncapped number of work permits available to foreign workers
 - Process for intra-company transfers is fast and straightforward
 - Special programs allow employers to permanently recruit high-end research staff and other workers within defined occupations
- Business-friendly environment:
 - Canada ranked #1 in number of procedures required to start a business, and #2 in time required to start a business (World Economic Forum, Global Competitiveness Report 2008-2009)
 - Ranked #4 globally for Ease of Doing Business by MasterCard Worldwide Center of Commerce Index (2008)
 - Canada's largest centre for research and education – location for 35% of all R&D conducted in Canada
 - Highly-skilled workforce of 1.8 million (25-64 years of age) drawn from the most educated population in the G8: 64% hold a post-secondary degree or equivalent
- Part of a well-developed transportation infrastructure – air, rail and highway corridors – that easily moves people and goods to cities in the US Midwest and Northeast

WORLD-CLASS RESEARCH AND EDUCATION

- Toronto Region universities are a hub of research excellence recognized by the major Canadian granting councils:
 - Canada Foundation for Innovation awarded \$11.4 million to wireless and RFID related infrastructure projects, 1998 - 2009
 - Natural Sciences and Engineering Research Council (NSERC) awarded \$3.6 million to wireless and RFID related projects, 1998 - 2009
 - 10 NSERC Canada Research Chairs
 - 4 NSERC Industrial Research Chairs
- A centre of advanced research and development based in Toronto Region universities, including:
 - **McMaster University:** Brockhouse Institute for Materials Research, Centre for Electrophotonic Materials & Devices, Communications Research Laboratory, Software Engineering Research Group, Centre for Emerging Device Technology
 - **Ryerson University:** Robotics & Manufacturing Automation Lab
 - **University of Guelph:** Advanced Robotics & Intelligent Systems Lab (ARIS), Institute for Robotics & Intelligent Systems, Centre for Materials Research
 - **University of Ontario Institute of Technology:** Advanced Materials Research Group
 - **University of Toronto:** Emerging Communication Technology Institute, Institute for Knowledge Innovation and Technology
 - **University of Waterloo:** Canadian Centre of Arts & Technology, Centre for Business, Entrepreneurship & Technology, Institute for Computer Research, Centre for Integrated RF Engineering, Institute for Innovation Research, Institute for Quantum Computing, Nortel Networks Institute for Advanced Information Technology, Waterloo Institute for Nanotechnology

“The Toronto Region is home to one of the largest and most productive concentrations of research and development talent in the world, and serves as a portal to all of North America’s major markets and institutions.”

– Dan Fortin, President, IBM Canada Ltd.

Leading Regions in North America for Wireless Publications and Citations, 2004-2009

Region	Number of Citations/ Publication
North Carolina	8.78
Massachusetts	7.51
California	7.20
Toronto Region	7.08
New York	5.53
New Jersey	5.26
Pennsylvania	5.25
Minnesota	5.25
Virginia	3.62
Illinois	2.86
Connecticut	1.50

Source: ISI

WEB LINKS

Toronto Region Research Alliance	www.trra.ca
McMaster University	www.mcmaster.ca
Ryerson University	www.ryerson.ca
University of Guelph	www.uguelph.ca
University of Toronto	www.utoronto.ca
University of Waterloo	www.uwaterloo.ca
Canadian Institute for Advanced Research	www.cifar.ca

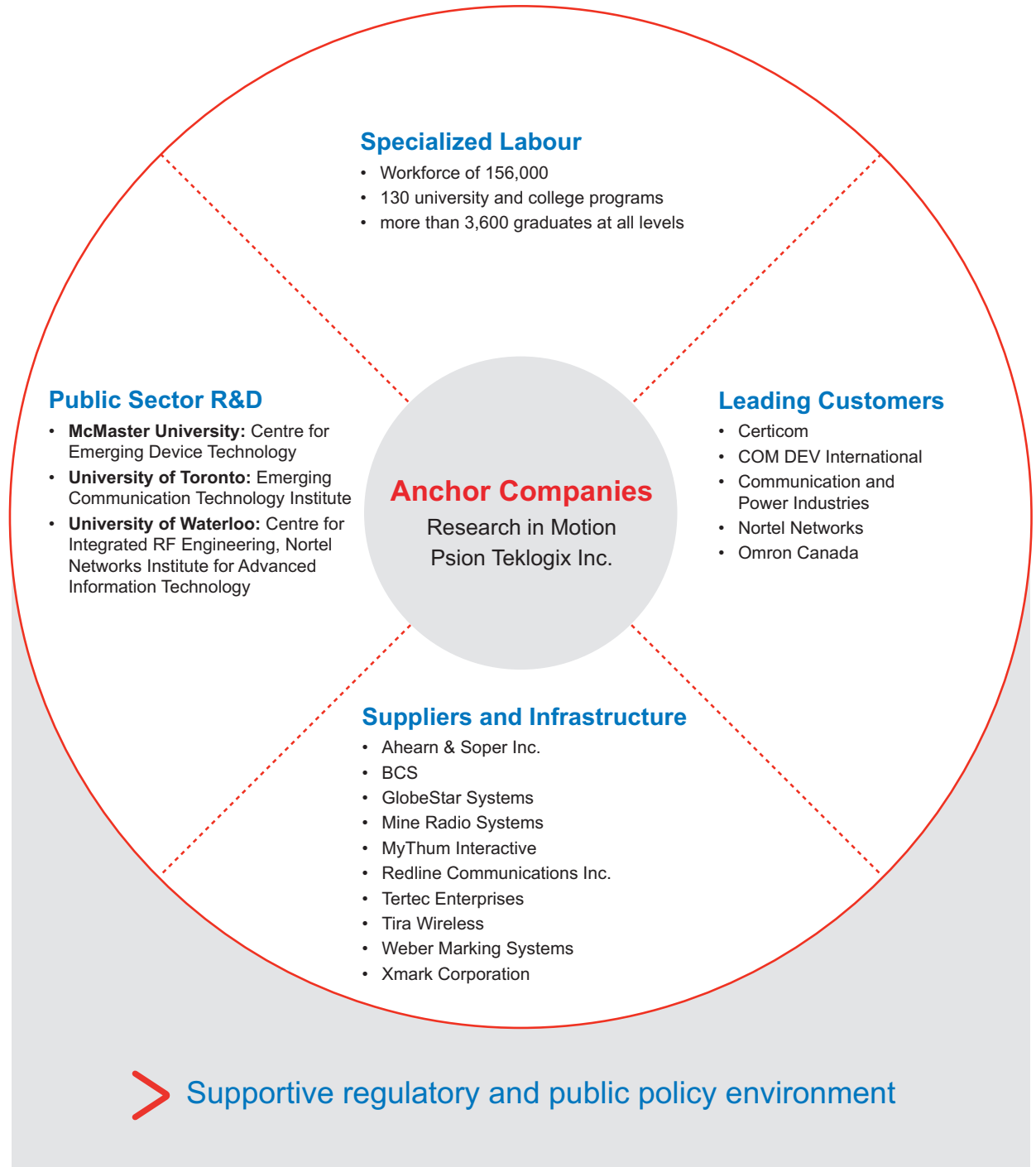
FOR MORE INFORMATION CONTACT

George Hanus, Director,
ICT & Advanced Manufacturing

Tel 1 416 673 6677
Cell 1 416 565 1624

ghanus@trra.ca

TORONTO REGION IS HOME TO A GROWING WIRELESS AND RFID INNOVATION CLUSTER



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