# Ontario's Regional Economic Development and Innovation Newsletter

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**ANNOUNCEMENTS** 

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# **High Tech Pundits Praise Federal Budget**

Representatives from computer industry associations say the federal government has delivered a laudably IT-minded budget, although they add that the feds still have some work ahead to make Canada a truly high-tech friendly place. The associations were pleased that the government increased the capital cost allowance rate from 30 per cent to 45 per cent for computers, and from 20 per cent to 30 per cent for network infrastructure. That means a company can write off 45 per cent of the cost of a new computer and 30 per cent of the cost of a new router.

# ITAC Creates Canadian ICT in Health Community

ITAC, the Information Technology Association of Canada, has created an on-line community of stakeholders with an interest in exchanging knowledge and best practices about the deployment of information and communications technology in health care. The Canadian ICT in Health Community is designed to provide a forum

for the exchange of ideas about ICT in health and to advance the deployment of the tools of information and communications technology in Canadian health care.

**EDITOR'S PICK** 

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### **Building World-Class Canadian High Technology Companies**

Denzil J Doyle, Glenn MJ McDougall and Jeffrey J Doyle, ITAC

Although Canada has a good infrastructure in place for creating high-tech companies and growing them to a reasonable size (\$10M to \$20M in annual sales), very few of them become large multinational companies (sales in excess of \$100 million) with their corporate headquarters in Canada. One of the reasons is that many of them are purchased by foreign buyers (mainly U.S.) at an early stage and merged into their worldwide corporate structures. It is becoming very common for such buyers to leave only the R&D function in Canada along with an administrative support function and carry out all other functions (Selling, Marketing, Operations, etc.) elsewhere in their corporate

structures. This paper argues that Canada should not place impediments in the way of such takeovers but shouldaggressively pursue policies that would encourage Canadian buyers to play a stronger takeover role, not just in Canada but around the world, particularly in the United States.

**INNOVATION & RELATED POLICY** 

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# INVENTION: Enhancing Inventiveness for Quality of Life, Competitiveness and Sustainability

National Science Foundation

This report is the culmination of a year-long study by 56 leading scholars and practitioners. Over a series of five workshops, the group reviewed some of the pillars of invention and sought to better understand the role of inventive ingenuity in solving global problems. The resulting report asserts that the government, business and education sectors must actively foster inventiveness to safeguard the nation's innovative edge in an increasingly competitive global market. The report makes several key recommendations. An executive summary of NSF's report and other backgrounders, including summary reports on each of the five workshops, are available on this link.

Helping to Create an Entrepreneurial Culture: A Guide on Good Practices in Promoting Entrepreneurial Attitudes and Skills Through Education

#### European Commission

Effective entrepreneurial development is about more than crafting effective public policies; it is about fostering cultural change so that aspiring entrepreneurs can identify opportunities and put together the pieces needed for a successful new venture. This report looks at successful approaches for building an entrepreneurial culture. The most effective strategies for building entrepreneurial cultures start early in primary and secondary education. If youth are exposed to entrepreneurial role models and are taught basic skills like creativity, risk-taking, and responsibility, they will be more likely to start new ventures or at least behave in a more entrepreneurial manner. The report offers 21 detailed examples of good practices from across Europe.

#### **COMPETITIVENESS & INNOVATION**

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### The Dynamics of Innovation Networks

Lionel Nesta and Vincent Mangematin, SPRU

This paper examines the changing contribution of networks to the innovative performance of pharmaceutical companies from 1989 to 1997. The findings indicate that different forms of collaboration with universities and biotechnology firms are important determinants of the firms' innovative performance, but their respective contributions diverge as the industry matures. The changing contribution of networks to knowledge production suggests that they are phase-specific, which has significant managerial and policy implications.

# Small Firms and Technology: Acquisitions, Inventor Movement, and Technology Transfer

US Small Business Administration

This report examines small firms' contribution to the innovation process through acquisition by larger firms and the hiring of elite inventors. Also considered is large firms' dependence on small firm technology through patent citations. The report's conclusions are drawn from two 1,000-plus databases of company patent activity from 1996 to 2000 and from 1998 to 2002. It finds that small firms' contributions to technological innovations are best measured industry-by-industry. Their importance is not immediately apparent when viewed in the aggregate, because small firms tend to be excluded from some key capital-intensive industries. The report cites examples such as the automotive, aerospace and oil research industries. The story becomes quite different for the emerging research and technology-intensive fields such as biotechnology.

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### **Corporate Domestic Research and Development Study**

H Douglas Barber and Jeffrey Crelinsten, Re\$earch Infosource Inc.

This study examines the goals of Canada's Innovation Strategy to determine whether they are achievable by 2010 and what steps are needed to ensure success. Since the country as a whole will need to spend over 3.1% of GDP on R&D by 2010, growing companies that spend 3% or more of their revenue on R&D are essential to achieving the goal. It will not be enough to have all companies grow equally, since that would not change the GERD/GDP ratio. Reaching the 2010 goal will require a larger proportion of growth in the firms spending 3% or more of revenue on R&D. These firms are "R&D-intensive", because their investment in R&D is high and they are expected to be the major contributors to the growth of Canada's economy.

# Federal Funds for Research and Development: Fiscal Years 2001, 2002 and 2003

National Science Foundation

These detailed statistical tables chart US Federal R&D funding from 2001-2003. Included among the 112 tables are 10 presenting the 2001 data by geographic distribution, performer and federal agency. Federal obligations for research and development in 2001 totaled \$78.078 billion. One-fourth of the total was for intramural R&D -- research activities taking place within many federal labs, research centers and military installations. With \$5.435 billion, Maryland captures the greatest share of federal intramural research. California, the District of Columbia and Virginia make up distant second, third and fourth place finishes, respectively. On a per capita basis, the top five states were the District of Columbia (\$1,375), New Mexico (\$1,141), Maryland (\$716.14), Massachusetts (\$618) and Virginia (\$455). Four of the top five rankings are held by states with significant federal presence, the only anomaly being Massachusetts. (Note: New Mexico benefits from the two large DOE labs, Los Alamos and Sandia.) The order of the second five states is more interesting and perhaps less easy to explain: Connecticut (\$374), Georgia (\$368), Maine (\$344), Alabama (\$328), and California (\$301).

**EVENTS** Table of Contents

#### Toronto TechAction Town Hall №₩!

# Toronto, 13 May, 2004

Mayor David Miller invites help in shaping our high tech future. The Toronto TechAction Town Hall is part of a national campaign to mobilize communities to take advantage of the opportunities that the use of advanced technologies presents for Canadians at work, in business, education and society at large. The city needs your help to envision and take action on a prosperous future for Toronto. The three-

hour moderated event will focus discussion on Toronto's strengths in the five key ingredients for business growth: human, financial, physical and social assets and innovation intensity.

# The PRELUDE Challenge - Clustering Digital Innovation in EU Regions: How to Drive ICT Regional Research and Innovation Through European Cooperation and Clustering

#### **Ennis, Ireland, 13-14 May, 2004**

This conference presents the PRELUDE project and its nine Digital Regions, which represent one of the most important European efforts to boost regional applied research and innovation through public-private partnerships. Participants will have the opportunity to become an active part of the community of interest for local and regional innovation that PRELUDE has initiated. Also, it will showcase the Irish experience, particularly Ireland's effort to modernise its economy and the public sector through a visionary strategy making use of the opportunities offered by the Information Society. The programme includes Conference presentations and an exhibition of Irish best practices

#### BioSummit 2004 @ McMaster

#### Hamilton, 19 May, 2004

This event - sponsored by The Golden Horseshoe Biosciences Network - is a must for those involved in the bioscience business. This conference will deal with venture capital investment and new company financing, biotech and health related research, the commercialization of research, and community and economic development at all levels of government. Over 200 participants from the business and science community attended the BioSummit@McMaster last year.

# MERIT Workshop on Information Technology, New Industry and Labour Market Dynamics

# Maastricht, 3-4 June, 2004

The aim of the workshop is twofold. First, to develop a perspective on the changing way in which goods are being produced, production processes are being organised and jobs are being occupied as a result of the adoption of IT. Second, it aims to investigate the consequences of IT diffusion and the determinants of adoption empirically at the firm level, its impact in the labour market both from a theoretical and empirical point of view and its macroeconomic consequences.

# **Regionalization of Innovation Policy - Options and Experiences**

#### Berlin, 4-5 June, 2004

Globalization leads to a greater relevance of regional factors for innovation processes. There is a growing consensus in the academic field, as well as among politicians, that innovation policy should include this regional dimension, i.e.

regional innovation systems. But it is still not quite clear how this could or should be done in practice. In general, there are two approaches to the regionalization of innovation policy. One strategy is attempting to improve the quality of the innovation system in certain regions. The main questions here concern appropriate instruments for such a strategy and the selection of regions. A second strategy that may be complementary to the above-mentioned one is to scale down national innovation policies in such a way that they take into account the various regions (for example, by focusing measures on certain clusters). In some countries, interesting attempts at such a policy that are worthy of investigation have been made (for example, the BioRegio or the InnoRegio program in Germany). This conference will bring together scholars working in the field of innovation systems and policy at the national and regional level.

# DRUID Summer Conference on Industrial Dynamics, Innovation and Development

#### Copenhagen, Denmark, 14-16 June, 2004

This conference aims to promote the general understanding of the interplay between industrial dynamics, innovation and development; investigate arrangements organized at various scales to enhance and utilize knowledge geared towards economic development; examine the role of entrepreneurship and innovation at various stages of economic development; the geographical reach and development consequences of knowledge spillovers; and to consider the implications for managerial strategy and public policy. Participation in the conference is restricted. Potential participants must supply a detailed abstract of at least 2 pages to summer2004@druid.dk no later than January 30, 2004.

# The 4th Congress on Proximity Economics Proximity, Networks and Co-ordination

# Marseilles, 17-18 June, 2004

This conference is geared towards all of the scientific community interested in the proximity concept, as it relates to everything from industrial organization to networks of public health. The call for proposals, which is open until October 31<sup>st</sup>, 2003, will give priority to either theoretical or empirical communications likely to produce a better understanding of the conceptual links between proximity, networks and co-ordination.

# ISPIM 2004 Conference - Successfully Creating Innovative Products and Services: Integrating Academia, Business and Consulting

#### Oslo, 20-24 June, 2004

This conference features academic papers and presentations from industry plus workshops elaborating on the conference theme. Delegates will have the opportunity to submit a poster on the conference theme as part of their conference fee. Important deadlines are 25 February 2004 (extended from 11 February) for abstracts, 19 April 2004 for full papers, presentations and posters.

#### MMO's Partnerships 2004 №₩!

#### Toronto, 22 June, 2004

Come draw from an unprecedented mix of expertise from industry and academia at the materials and manufacturing community's networking event of the year. With more than 275 exhibitors and 1,100 participants, Materials and Manufacturing Ontario's annual conference and dinner is a day of sharing best practices, emerging research, technical expertise, industry trends and new ideas for future growth.

#### Foresight Training Course for Practitioners and Organizers №₩!

#### Manchester, UK, 28 June - 2 July, 2004

Now in its sixth year, the annual PREST Foresight training course provides an intensive, practically-oriented introduction to Foresight for those who might be involved in Foresight activities, whether as a sponsor, organizer or practitioner. Past attendees have included senior managers and practitioners from companies, intergovernmental organizations, research institutes, and government departments. The course is residential and is organized around parallel streams of lectures and practical work that enables participants to experience the relevance of each lecture and the realities of Foresight activity. The course draws upon PREST's extensive experience of organizing and researching Foresight activities across Europe and beyond. This includes direct assistance to more than a dozen countries' national Foresight exercises, close cooperation with the EC and UNIDO, and facilitating Foresight activities in public and private organizations.

# Organizations, Innovation and Complexity: New Perspectives on the Knowledge Economy №₩!

# Manchester, UK, 9-10 September, 2004

This conference explores the concept of the knowledge economy from a complexity perspective, with a particular emphasis on the emergence of innovation and the self-organization and self-transformation of economic systems. The broad themes will include conceptual thinking; modelling/simulation and empirical/case Studies. Key questions address how new ideas emerge and translate into a change of understanding, how knowledge generation processes vary within firms, how market feedback stimulates a search for new understanding and how contextual and historical factors can constrain or empower the production and use of knowledge.

# Patent Policy: Using, Abusing and Reforming

# Duke University, 17-19 September, 2004

It has long been recognized that the patent system provides a unique means for trading off ex ante

innovation incentives against the ex post inefficiencies of monopoly power. The

current system of patent acquisition and protection is now frequently criticized on numerous grounds, including its manipulability, its susceptibility to abuse and holdup, its regional specificity, its differential treatment of leaders and laggards, and the agency costs that are present not only among business competitors, but among the very bureaucrats and judges who administer the system itself. The conference intends to explore these ideas further, bringing together leading scholars from law schools, business schools, and economics departments. Submission deadline: May 1, 2004.

# Continuous Innovation: Strategic Priorities for the Global Knowledge Economy

#### Sydney, Australia, 22-25 September, 2004

Continuous innovation is the ongoing process of initiating, developing, operating and improving new and existing configurations of products, market approaches, processes, technologies and competencies, organisation and management systems. As organisations strive to achieve a synergistic balance between short-term oriented, operationally-effective exploitation strategies and longer-term, flexibility-oriented exploration strategies, the rapid growth of the global knowledge economy has placed learning at the centre of this critical balance. The 5th International CINet 2004 conference has as its theme "Continuous Innovation: Strategic Priorities for the Global Knowledge Economy" and aims to address these key issues for organisational survival and growth.

#### Hydrogen & Fuel Cells 2004 Conference and Trade Show

# Toronto, 25-28 September, 2004

As society shifts towards the Greener World, it is increasingly important that the team-work necessary to achieve and meet our challenges and objectives be effectively integrated, shared and understood across disciplinary and business boundaries. In planning for the September 2004 Meeting in Toronto seven such inter-related themes have been identified: Hydrogen technology progress, fuel cells, economics & policy, renewable hydrogen, demonstrations, investment & marketing options, and climate change. We invite you to submit abstracts for oral and/or poster presentations to be presented to an international audience of hydrogen and fuel cell industry leaders. Submission deadline: March 17, 2004.

# **Constructing Competitive Advantage**

# Ottawa, 28 September - 1 October, 2004

TCI's 7th annual conference will closely examine and exchange experiences concerning how firms can be grown in a cluster, how clusters can be branded and get products to market, how clusters interact, and how an active strategy can either grow or stunt the future prospects of a cluster. The program includes an introduction workshop on cluster, cluster site visits, an academic summit and many guest speakers and mini-forums.

#### **Photonics North 2004**

#### Ottawa, 27-29 September, 2004

Building on the success of OptoCanada, held in Ottawa in May 2002, the Canadian Photonics Consortium and the Ottawa Photonics Cluster are collaborating to sponsor Photonics North 2004. The Conference is chaired by the CEO of Siemens Canada, Dr. Albert Maringer, and is being managed by SPIE. Leading photonics experts from around the world will be participating. Suggested topics for papers range from Biophotonics to Telecommunications Networking. Among the special features of the Conference will be a parallel program on the first day focusing on doing business with Germany, with a variety of speakers from Germany, as well as a student program organized by Photonics Research Ontario on the second day. The deadline for submission of abstracts is March 15, 2004.

#### Commercialization: What's Working, What's Not

#### Ottawa, 9 November, 2004

Research Money once again shines the spotlight on the federal government's innovation agenda. Join key players from business, government and academia to examine what's working and what's not with research commercialization.

#### InnoWest 2004

# Calgary, 17-18 November, 2004

This first annual western Canadian Innovation Conference, hosted by the Centre for Innovation Studies (THECIS), will address a wide range of issues in innovation including cluster, education, public-private partnerships and financing innovation. This conference provides a forum for the innovation community in western Canada to network, review the latest developments and work to find solutions to common problems. Day 1 has eight sessions, and Day 2 has four Workshops, on BioProducts, Energy, ICT, and Manufacturing.

# 5th Triple Helix Conference - The Capitalization of Knowledge: Cognitive, Economic, Social and Cultural Aspects №№

# Turin-Milan, 18-21 May, 2005

The 5th Triple Helix Conference will bring together researchers interested in the interaction between University, Government and Industry. The conference program will include 10 Track Sessions per day, made up of paper sessions dedicated to individual scientific contributions, workshops on selected specific themes and panels intended for industrial experts and policy makers. The organizers invite contributions on issues related to the conference theme: economics of innovation, organizational sociology, regional policy, business & management, cognitive economics, finance, law & economics, industrial economics, scientific and

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