

## Ontario's Regional Economic Development and Innovation Newsletter

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### **[New Cluster of Nutrisciences and Health Research in PEI](#)**

NRC's newest research institute recently launched its new Web site. The new NRC Institute for Nutrisciences and Health (NRC-INH) Web site contains a wealth of information about activities at the institute. Based in Charlottetown, Prince Edward Island, NRC-INH began operations in 2003. The institute resulted from extensive community and industry consultations and technology roadmapping, critical components in NRC's community innovation approach, a process known as cluster building. Through NRC-INH and partners from the Atlantic Canada Opportunities Agency, the Province of PEI and the University of PEI, NRC will help the community extend and develop existing expertise and capacity in the area of bioresources.

### **[Waterloo Region Tech Community Predicts Business Climate, Economy Will Improve in Next 12 Months](#)**

The vast majority of respondents to a survey of Waterloo region's tech community say they are optimistic about the future business climate and their growth potential in the next 12 months. In a recent Quick Pulse survey conducted by Communitech Technology Association, 83 per cent of respondents indicated they are positive about their business outlook.

## **Prognosis Good for Canadian IT**

Canada's information technology sector has recovered and will produce small but certain gains in the next several years, IDC Canada a leading research firm predicts. In its mid-year market update, the IT research and analysis firm bumped up its growth forecast for the industry to annual compounded growth of 2.7 per cent between 2003 and 2008, up from earlier predictions of 2.4 per cent. The telecom industry in particular had reason to celebrate, with IDC forecasting that annual spending on telecom equipment and services will remain constant at about \$5.6-billion annually for the next several years.

## **EDITOR'S PICK**

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## **Strengthening Structures: Upgrading Specialized Support and Competitive Pressure**

*Institute for Competitiveness & Prosperity*

This fifth working paper measures the effectiveness of Ontario's clusters of traded industries and concludes that they are not as effective as the same clusters in peer states. The paper shows that Ontario's market structures provide inadequate specialized support and competitive pressure to firms and individuals. The Institute concludes that Ontario provides an adequate level of general support – in infrastructure and basic education - to the economy. However, Ontario's clusters and the overall economy are not benefiting from specialized support, such as university/industry collaboration and specialized research and training – the kind of specialization that creates world-class advantage for companies and workers. Nor does Ontario have the structures that create conditions of intense competitive pressure from firm rivalry and sophisticated customers.

## **INNOVATION & RELATED POLICY**

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## **ICTs and Social Capital in the Knowledge Society**

*R Van Bavel et al. Institute for Prospective Technological Studies*

The report examines the relationship between ICTs and social capital against the backdrop of the Lisbon objectives. It discusses the most relevant arguments put

forth during a workshop held in Seville in November 2003, including the three background papers that were commissioned for that occasion. It includes an overview of the relationship between social capital and ICT, elaborates on the empowerment vs. balkanization debate, problematizes the notions of digital divide and death of distance, addresses the relationship between social capital and communities of practice, and concludes with key messages to policy makers and key avenues for future research on ICT and social capital in Europe.

## **Competitiveness in Rural US Regions: Learning and Research Agenda**

*Michael E Porter, Christian Ketels, Kaia Miller and Richard Bryden, Institute for Strategy and Competitiveness*

Part of a long term study of the competitiveness of rural regions this paper concludes that current policies to improve the disappointing economic performance of rural regions are not working. The failure of rural policies has many costs: it draws on limited government resources, retards national productivity, leads to an inefficient spatial distribution of economic activity, and creates demands for intervention that threaten to erode the incentives for productive economic activity. This report summarizes a selective, interpretative review of the literature on the economic performance, the composition and evolution of rural economies in the United States, the nature of the business environment in rural regions, and evidence on the role of clusters in these areas. This report also briefly reviews U.S. policies towards rural regions and the institutional network serving them. Finally, it summarizes the policy recommendations for rural regions in the literature.

### **INNOVATION & REGIONS**

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## **Grilichesian Breakthroughs: Inventions of Methods of Inventing and Firm Entry in Nanotechnology**

*Michael R Darby and Lynne G Zucker, NBER*

This paper on the nanotechnology industry is part of a wider research program designed to provide a better understanding about how and where new industry breakthroughs will emerge. Research in this paper shows that cutting edge research innovations generally occur in communities that combine a major research university with a large pool of skilled workers. Other assets, such as venture capital availability, are not a key factor at this early stage. However, such capital pools do become important as a more structured industry develops. This pattern seems to apply to both biotechnology and nanotechnology. The authors use a variety of measures, but do not attempt to rank regions in terms of their strengths for future nanotech development. However, regions that do perform well on some key metrics include Los Angeles, Santa Barbara, Silicon Valley, Boston, Research Triangle (NC), Champaign-Urbana (IL).

## **Spatial Determinants of Productivity: Analysis for the Regions of Great Britain**

*Patricia Rice and Anthony J Venables, LSE Centre for Economic Performance*

Regional inequalities are a striking and persistent feature of many economies, developed and less developed. This paper investigates the determinants of spatial productivity differences, paying particular attention to the role of proximity to economic mass. Is it the case, as suggested by many theories of economic geography, that proximity to centres of economic activity increases measured productivity? The authors find considerable support for this hypothesis in Great Britain in their examination of earnings, occupational and productivity effects.

## **STATISTICS**

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### **The Economic Impact of ICT: Measurement, Evidence and Implications**

*OECD*

Information and communications technology (ICT) has become a key driver of economic growth over the past decade. The rapid diffusion of the Internet, of mobile telephony and of broadband networks all demonstrate how pervasive this technology has become. But how precisely does ICT affect economic growth and the efficiency of firms? And how well can these effects be measured?

This report provides an overview of the economic impact of ICT on economic performance, and the ways through which it can be measured. Using available OECD data, the first part of the book examines the available measures of ICT diffusion, the role and impact of ICT investment and the role of ICT-using and ICT-producing sectors in overall economic performance. The second part of the book offers nine studies for OECD countries, based on detailed firm-level data from a wide range of OECD countries. These studies use a variety of methods and provide detailed insights on the effects of ICT in individual countries.

### **Science, Technology and Industry Scoreboard 2003**

*OECD*

The purpose of the web-edition of the 2003 STI Scoreboard is to provide easy access to a wide range of indicators that show the movement of OECD countries towards a knowledge-based economy. The Scoreboard presents indicators across 4 different dimensions: 1) the creation and diffusion of knowledge; 2) the information economy; 3) the global integration of economic activity; and 4) productivity and economic structure. A highlights section provides a synthetic overview of these different themes.

## **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; modeling/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, organization and management systems. As organizations 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 organizational survival and growth.

## **Building the Future on Knowledge: Blueprints for Foresight Actions in the Regions Expert Group** NEW!

### **Brussels, Belgium, 23 September, 2004**

An expert group for foresight actions in the regions in support of the implementation of EU policy was implemented in 2003. The objective of this conference is to present the results of the expert group, as well as to inform national and regional policymakers and policy-shapers of the combined policies and instruments of the European Union supporting the development of regional knowledge based economies. High level political input by Research Commissioner Philippe Busquin, the President of the Committee of the Regions Peter Straub, Commissioner Peter Balazs, as well as MEP Alain Lipietz will be combined with the hands-on experience of the five working groups of the Blueprints expert group. [Pre-Registration](#).

## **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.

## **E-Commerce to E-Economy: Strategies for the 21st Century**

### **Ottawa, 27-28 September, 2004**

The spread of Internet-based technologies throughout society has become the dominant economic reality of the 21st century. The e-economy - the use of information and communication technologies for product and process innovation across all sectors of the economy - has emerged as the primary engine of productivity and growth for the global economy. Successful economic strategies will enhance our capacity to adopt and exploit these technologies to create competitive advantage. The goals of this conference are to highlight the importance of the Internet and e-business to productivity, competitiveness and economic growth; assess Canada's progress as an e-economy, its future challenges and opportunities; and establish strategic priorities for government, business and academia.

## **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.

## **Emerging Technologies Conference at MIT NEW!**

**Cambridge, MA, 29-30 September, 2004**

Produced by Technology Review Magazine, the authority on emerging technology, The Emerging Technologies Conference at MIT showcases the technologies poised to make a dramatic impact on our world. It brings together world-renowned innovators and leaders in technology, business and entrepreneurial fields certain to better our lives, create opportunities and fuel economic growth.

## **Public Science in Liberal Democracy: The Challenge to Science and Democracy**

**Saskatoon, 14-16 October, 2004**

The conference will include papers presented by major international scientists from academia, business and government as well as academics from several disciplines in the humanities and social sciences. It will focus on three key questions: Can science retain independence and objectivity in the face of demands to meet commercial and public policy objectives? In what ways is scientific discourse privileged in the formation of public policy? How can scientific knowledge and methodology be made compatible with the interdisciplinary and integration required

in public policy discourse and formation?

## **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.

## **From Discovery to Marketplace: Fuelling the New Canadian Economy**

**Quebec City, 10-13 November, 2004**

As Prime Minister Martin observed recently, "Ideas and discoveries will be the currency of the 21st century, and increasingly that currency must be Canadian." This conference unites Canadian members of the Association of University Technology Managers (AUTM) to accept the Prime Minister's challenge. Participants will report on the progress that has been made in constructing a commercialization infrastructure for Canada as well as the many emerging and existing opportunities for bringing academic discoveries to the marketplace.

## **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 technology policy, and political science.



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