

## Ontario's Regional Economic Development and Innovation Newsletter

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**ANNOUNCEMENTS**

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### **Increased Optimism Likely to Spur the VC Industry in 2004**

Continued recovery of the public markets and increased investment activity in the third quarter of 2003 drove investors' optimism, as 60 per cent of Canadian VCs expect the overall economic climate to improve over the next six months. This view, which is the highest level of confidence expressed by Canadian VCs over the past two years, is drawn from the eighth Canadian Venture Capital Confidence Survey, released by Deloitte and the Canadian Venture Capital Association (CVCA). The quarterly survey provides a snapshot of venture capital investors' outlook in Canada for the next six months.

### **Washington and Biotech - Expensive in More Ways Than One**

Washington State's governor, Gary Locke, is currently promoting Bio21, a plan that would pledge \$250 million to the further development of their biotech industry. Locke hopes to have matching funds from private donors like Microsoft and Amgen, but has yet to reveal all sources of funding. Despite the risk involved in this venture the

governor is spurred on by potential payoffs in job creation and wage rates as well as pressure from local biotech companies who aren't shy about reminding the governor that other states are willing to offer attractive economic incentives to leave Washington.

## **EDITOR'S PICK**

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### **2004 Index of Silicon Valley: Measuring Progress Towards the Goals of *Silicon Valley 2010***

*Joint Venture Silicon Valley*

The 2004 Index of Silicon Valley tells the story of continuing economic restructuring as the Valley's future begins to take shape. Although the Valley continued to lose jobs in its traditional hardware and software sectors, the rate of regional job loss slowed. In several industries, the Valley lost a smaller percentage of jobs than the nation, especially in the biomedical area. The sector adding the most jobs was health services. Venture capital is shifting to medical devices and biotechnology companies. Also, there has been a surge in community-college certificates awarded, particularly in health fields. Value added per employee has also continued to grow. This report identifies trends and challenges in reaching *Silicon Valley 2010* goals.

## **INNOVATION & RELATED POLICY**

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### **Starting the New Century: Technological Change in the Canadian Private Sector, 2000-2002**

*Statistics Canada*

Based on data from the 2002 Survey of Electronic Commerce and Technology, this paper examines the acquisition of significantly improved technologies in the Canadian private sector. The paper shows that private sector companies are actively engaged in technological change, with large firms leading the way. It suggests that larger firms can more readily absorb costs associated with technological change, which includes more than the initial layout for technological acquisition. Larger firms can also provide resources for training and cope with work interruptions caused by installation, as well as with potential short-term loss of productivity.

### **SMEs and the New Role of Academic Research: The Case of Norway**

*Eric J Iversen, STEP*

The main aim of this report is to explore the changing relationship between academic research and small and middle-sized enterprises (SMEs) in Norway. The focus is on this country's policies and institutions (formal and informal) that are designed to promote the commercialisation of academic research and/or knowledge exchange between SMEs and universities. This national report provides an overview of the

current interaction between the university sector and the large population of Norwegian SMEs (the 'U-SME relationship'), it describes the instrumental regulatory and institutional factors that shape the U-SME relationship in Norway, and it discusses relevant policy-measures with an eye to further improving the relationship.

## **Choose to Compete: How Innovation, Investment and Productivity can Grow American Jobs and Ensure Competitiveness in the 21st Century**

*Computer Systems Policy Project (CSPP)*

This new report paints a mixed picture of the state of America's technology economy. It points to entrepreneurship and innovation as key strengths of the American system, but it also identifies some glaring problem areas. Improving workforce training, especially in math and science education, poses a big challenge. Similarly, challenges from overseas competitors and trade protection hurt American companies, but the authors argue that US firms must expand support for global operations and open markets. The report recommends increased support for science and technology R&D, and a commitment to maintaining a business climate open to innovation and entrepreneurship.

## **REGIONAL INNOVATION & CLUSTERS**

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### **Industrial Clustering and the Returns to Inventive Activity: Canadian Biotechnology Firms, 1991-2000**

*Barak Aharonson, Joel Baum and Maryann Feldman, DRUID/Rotman School of Management*

The paper uses detailed data on biotechnology firms to examine the specific ways in which firms benefit from knowledge spillovers and externalities in industrial clusters. The authors consider how biotechnology firms' innovative output is affected by their own R&D activity and the R&D activity of other collocated firms' in the same technological application (e.g., agriculture, aquaculture, therapeutics), contrasting the effects of these R&D activities for firms that are not located in clusters or located in clusters that are not focused on the firm's application. They find that clustered firms are more innovative with the strongest effect for firms located in clusters with strong representation in their own application.

### **Density and Strength of Ties in Innovation Networks: A Competence and Governance View**

*Bart Nootboom and Victor A Gilsing, ECIS*

This article re-examines claims concerning effects of network structure from the literature on social networks. It combines a perspective of 'competence', in learning and innovation, with a perspective of 'governance', in the management of 'relational risks' of hold-up and spillover. This combination of perspectives yields six dimensions of the strength of ties. The article develops a distinction between network requirements for 'exploration' and for 'exploitation'. It argues that in exploration there are good reasons, counter to the thesis of the 'strength of weak ties', for a dense

structure of ties that are strong in most dimensions. In exploitation, there are good reasons for structures that are non-dense, with ties that are strong in other dimensions than in networks for exploration. To test these hypotheses, the article presents evidence from two longitudinal empirical studies of the emergence and development of networks in the multimedia and pharmaceutical biotechnology industries.

## **EVENTS**

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### **Tech Expo 2004**

#### **Ottawa, 5 February, 2004**

Publicly funded science and technology can provide Canadian firms with significant competitive advantage. Once again Federal Partners in Technology Transfer has joined forces with the National Research Council's Industrial Research Assistance Program, the Canadian Technology Network, Communications and Information Technology Ontario and others, to present TechExpo 2004. Take the opportunity to discover technologies and collaborative projects in universities and government labs, hear from government departments, meet organizations that provide services in support of tech transfer and IP, and more.

### **Licensing Converging Technologies - Bridging the Gap**

#### **San Francisco, 11-13 February, 2004**

This meeting will address the convergence of three technologies and how they will affect numerous industries, from electronics and new materials science to pharmaceuticals and patient specific therapies. What are these technologies? How are they converging? How will it affect the future of our business endeavors? What are the implications for licensing and intellectual property? The conference will examine the impacts of nanotechnology, biotechnology and information and communication technologies on a variety of industries and across a range of applications.

### **Urban Impacts of the Information society: Facts, Fiction and Policies Telecities and MUTEIS conference**

#### **The Hague, 17-19 March, 2004**

The "information revolution" and the emerging Information Society entail fundamental changes in social interaction and relationships, and modifications in the socio-economic and spatial organization of activities. The main driver in this process is the rapid development and application of Information Society Technologies (ISTs). The main inhibitors are the fictions that emerged from the discussion of the New Economy. Better knowing the drivers and inhibitors is crucial for contemporary urban management. This conference will explore the urban economic and social impacts of information society technologies (ISTs), as well as the way new technologies urge

local governance in cities to change their policies. Academics and senior city managers, planners and researchers will discuss practical case studies, experiences and state of the art research under the following themes: urban policies for and patterns of IST adoption, spatial behaviour in the context of global IST developments, patterns of digital infrastructure and use, and the relationship between IST, productivity and competitiveness.

## **New Directions in Technology Management: Changing Collaboration Between Government, Industry and University**

**Washington D.C. 3-7 April, 2004**

This Conference of the International Association for Management of Technology will discuss new directions in technology management and their influence on innovation and the creation of economic growth and prosperity. Special attention will be given to the necessary mechanisms of knowledge generation, science and technology policy, and the collaboration required to accomplish national and organizational objectives. Best practices in technology development and utilization will be presented. The academic institution's role in preparing the needed human resources for the technological environment of the 21st century will also be addressed.

## **The Europe of Knowledge 2020: A Vision for University-based Research and Innovation**

**Liege (Belgium), 25-28 April, 2004**

This conference will explore the issues raised by the Commission's communication published in February 2003 on "the role of universities in the Europe of Knowledge". The conference will address in a series of parallel sessions that address the following issues: the creation and certification of knowledge, the changing nature of research teaching, P3s, the role of universities for research in the regions and the challenge of inter-disciplinary research. This conference aims to produce an agreed roadmap to help European universities to realize fully their ambitions in the 21st century.

## **Smart City Summit 2004**

**Ottawa, 27-28 April, 2004**

The Smart City Summit combines Ottawa's Business and Technology Trade Show with a major business and technology conference that draws international attention from business and government. It is also Ottawa's premier mega-networking and business development event, catering to technology and business decision-makers and federal, provincial and municipal government attendees from across Canada. In just three short years, the Summit has evolved into a dynamic local and international marketplace for business innovators encompassing a major conference, trade show, keynotes, networking, and innovation awards.

## **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](mailto: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 coordination.

## **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 teamwork 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.

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