



SUMMARY

GREATER VICTORIA CONSULTATIONS

VICTORIA

APRIL 8, 2004

PREMIER'S TECHNOLOGY COUNCIL

This document is a summary only of presentations made during the consultations in Victoria on April 8, 2004 and written submissions provided to the Premier's Technology Council. Every effort has been made to consider all input presented and be as accurate as possible. However, errors or omissions may have occurred. Please notify the PTC of any significant inaccuracies at

Premiers.TechnologyCouncil@gems8.gov.bc.ca.

VICTORIA CONSULTATIONS

Date: Thursday, April 8, 2004
 Time: 7:30-18:00
 Location: Conference Room
 Vancouver Island Technology Park
 4464 Markham St., Victoria, BC

Attending:
 - Jim Mutter, PTC President
 - Dr. Don Rix, PTC Member
 - Derrick Chee, PTC Staff

AGENDA

Time	Organization	Name	Page
8:00 am	VIATeC Vancouver Island Technology Park	Bill Cooke Shirley Vickers Dan Gunn Dale Gann	1
8:30 am	Ocean Innovative Systems Inc. AXYS Environmental Systems	Paul Lacroix Harry Weiler	2
9:00 am	Power Measurement	Jacques Van Campen	3
9:30 am	How2Share WISE Energy Co-op PureEdge InSite Executive Partners Inc. Intelligent Traffic Equipment Marketing Ltd. Andad Research and Development Inc.	Colin How Anita Murray-Hill Eric Jordan Rodger Darbey Glenn Radford Andrea Guyon	3
10:30 am	OA Solutions Pangaea Systems Municipal Software	Naomi Hamilton Tayo Runsewe Robert Bennett	4
11:00 am	BC Cancer Agency	Dr. Sam Abraham	5
11:30 am	Daniels Electronics	Anna Junge	6
1:40 pm	Cellfor	Wolfgang Schuch	7
2:00 pm	RPA Systems Farm	Patrick Arnold	7
2:20 pm	Procura	Warren Brown	8
2:40 pm	Power Measurement	Brad Forth	8
3:00 pm	Scott Phillips Engineering	Scott Phillips	9
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3:40 pm	Innovation and Development Corporation, University of Victoria	Tim Walzak	10
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VANCOUVER ISLAND ADVANCED TECHNOLOGY CENTRE (VIATEC)
Bill Cooke, Shirley Vickers, Dan Gunn

Vancouver Island Technology Sector

- Vancouver Island is the second largest technology centre in BC with an estimated regional revenue of \$1 billion.
- The Island's largest private company is Power Measurement (over 200 employees locally, 150 worldwide).
- 75% of companies on Vancouver Island are in the Greater Victoria Region.
- The Island has two universities, one university-college, two colleges, and 8 Federal research centers which have been sources of innovation.

VIATeC

- VIATeC aims to foster economic development, specific to technology, on the Island.
- Access to venture capital remains an issue, as well as access to management and technical skills.
- VIATeC holds human resource oriented seminars and workshops.
- 6 people working at VIATeC, as well as volunteers providing mentorship and/or looking to invest.
- Find that people are interested in returning to Island with experience and resources they want to invest in the local technology sector.

Issues

- Access to Capital was VIATeC's major project over the last year (previous 5 years administered under the Canada Community Investment Plan (CCIP)) in conjunction with Human Capital Management Project.
 - Project aims to help entrepreneurs develop a business from their idea.
 - Human capital and business development advice are provided by volunteer mentors and coaches.
 - The CCIP serviced over 300 Vancouver Island advanced technology companies and facilitated financing totaling \$15 million of private first round investment. The total government investment in the program was \$480,000, thus yielding a 30:1 return on investment.
 - VIATeC facilitated \$2.3M in private investment for about 8 companies, and provided advice to 189 individuals over the last year.
 - \$150K was provided by the Province last year, with additional funds for the project from Western Economic Diversification (WED).
 - Project is being extended with a financial commitment from WED.
 - There is a lack of participation from the Province in the extension which is disappointing given the return it generates for the community.
- VIATeC is not considered a regional technology council because it is membership based, and therefore does not receive funding from the Ministry of Small Business and Economic Development.
 - VIATeC has in fact played the role of a regional science and technology council, contributing to the economic value of the Province and region.

Message to the PTC

- VIATeC is important to the economic development of technology in the region.

- Support development on the Island through VIATeC's Access to Capital and Human Capital Management projects.
- Continue to support growth of investment capital in BC.
- Continue to support human capital development needed in the region.
- Continue to develop and support partnership projects focused on economic development.

OCEAN INNOVATIVE SYSTEMS INC., Paul Lacroix
AXYS ENVIRONMENTAL SYSTEMS, Harry Weiler

- NRC has just completed an Ocean Technology Sector Roadmap which will help Canada's \$20 billion ocean technology sector.
 - Provides 350K jobs nationally for coastal communities mostly located in the regions.
 - There are 100+ companies in BC and each typically employ 20-25 people.
 - Companies sell into government and military, and are impacted by government policy.
- Sector produces highly exportable goods but has not often been successful at home.
 - Canada has the opportunity to pursue US Ocean Technology Projects, but cannot usually sell without having a record of success at home.
- Sector receives a great deal of support from the Federal government and was recognized as one of top eight sectors for development.
- Federal government is putting together Ocean Action Plan to begin breakdown government stovepipes of activities in the sector.
 - Little support or participation from the Province (unlike Eastern Provinces) resulting in Western efforts having to be industry-driven as opposed to government-driven.
 - The Science Council is one of the few champions of BC ocean technology sector.
 - There is no one in the provincial government to talk to or have champion the sector.
 - There are few studies or indicator reports about ocean technology on the Pacific coast, thus basic information is unavailable to steer the actions of the sector.

Message to the PTC

- Need leadership and policy from the Provincial government in partnering with federal government and accessing resources.
- Policy and indicators on the BC ocean technology sector would help businesses develop and grow.

POWER MEASUREMENT
Jacques Van Campen

- Power Measurement is the largest technology company on the Island, and the only one in T-Net's Top 35 outside of the Lower Mainland.
- GFI Capital (US based) has majority ownership of Power Measurement.
- Presenting on behalf of advanced manufacturing sector.

Human Resources

- Need quality people with both business and interpersonal skills.
- Incentive programs to hire students and junior staff will develop a skilled workforce in the region.
- Connecting with the universities is difficult and it is hard to know who to deal with among various players within each institution.

Taxation

- Scientific Research and Experimental Development (SR&ED) program should be continued; it makes the economics of locating in BC favorable and has kept at least a portion of Power Measurement's operation in BC.
- Taxation is more competitive, but Power Measurement still maintains offices in the US to employ talent more easily there.

Other

- Believes that government should not be involved in picking winners; however, the PTC's sector diagram seems to contradict that.
- Technology exports in BC remain low compared to the rest of Canada.
- Companies should use operating profit to keep score as it is a better measurement for success and building growth.
- Maintaining BC's long term sustainable competitive advantage.
 - Home grown niches have been the most successful and their story must be told in accessing foreign capital.
 - Access to sufficient talent and resources is needed.
 - Lifestyle and diversity attract people to locate here.
 - There is an opportunity to capitalize on near sourcing opportunities in Canada.

Message to the PTC

- Continue to develop an environment that attracts foreign capital and talent.

HOW2SHARE, Colin How
WISE ENERGY CO-OP, Anita Murray-Hill
PUREEDGE, Eric Jordan
INSITE EXECUTIVE PARTNERS INC., Rodger Darbey
INTELLIGENT TRAFFIC EQUIPMENT MARKETING LTD., Glenn Radford
ANDAD RESEARCH AND DEVELOPMENT INC., Andrea Guyon

- Lack of locally accessible seed capital is an issue for early stage companies.
 - There is no formalized seed capital association or forum on the Island.

- The University of Victoria has a semi-annual forum.
- VIATeC does have a venture panel and mentorship, coaching and expertise that are accessible by its members; membership costs \$350 per year.
- Quality education about building ideas into a business, navigating government regulations, and securing resources is needed.
- Expansion of funding will help more than just technology ventures.
- Small companies create jobs here in BC.
- Have had to travel to Vancouver to raise capital and time spent raising money is time not spent building the business.

Messages to the PTC

- Consider sponsoring a program that matches early venture opportunities with investors. This will give local citizens opportunity to invest to BC businesses.
- Venture Capital tax credits are beneficial and should be increased. The recent cut off of tax credits hurt many businesses.
- Establish a BC Seed Fund for early stage companies.
- There is no regional science and technology council on the Island. VIATeC has filled this role, but its services are limited by its resources.

OA SOLUTIONS, Naomi Hamilton
PANGAEA SYSTEMS, Tayo Runsewe
MUNICIPAL SOFTWARE, Robert Bennett

- Presenting on behalf of mid-sized technology companies in the Capital Region.
- Sit on government relations committee (sub-committee of community relations committee) of VIATeC.
- Applaud government's ICTS committee and changes it has made to standard contract wording with respect to intellectual property, indemnity and liability.
- VIATeC held Public Technology Forums attended by Cairine MacDonald, Deputy Minister of the Ministry of Management Services, and Rick McCandless, Government Chief Information Officer, Common IT Services.
 - Forums have served to inform the public on issues and government's information technology direction, giving businesses access to developments and plans in government.

Regional Economic Development

- Mixed signals on policy for economic development.
- Competitive trading environment, encouraged by the Agreement on Internal Trade and the North American Free Trade Agreement, conflicts with regional development and there is no statement on supporting the latter.
- Large contracts with clauses supporting subcontracting can be used to encourage and develop local businesses.
 - Suggest a points system where weight is granted to bidders for involving local companies ('local tax payer benefit clause').

Governance

- Still unsure of who's in charge in government, and get different answers depending on who they talk to.
- Confusion exists within the Ministries there still seems to be stove piping and a lack of a communicated and clear vision.
- Governance seems to lack teeth to enforce a level of compliance necessary to be strategic with project activities.

Standardization

- Government announces standards which businesses align to sometimes even before they exist.
- Standards are subject to change which is costly in terms of training and time spent by smaller vendors.

Message to the PTC

- Encourage government to communicate a clear message to mid-sized private companies around standards and governance.
- Continue procurement reform and hold another symposium focused on small to mid-sized businesses.
- Following the American system of bidding for the right to negotiate as opposed to fulfill is creating huge costs for business (shifts costs from procurer to supplier).
- Applaud positive changes in procurement to date.

BC CANCER AGENCY Dr. Sam Abraham

- Genetics can predispose certain individuals to a range of disease with differing severity.
- Presently we are using 400 year old technology to classify and treat disease.
- Drug costs in the BC Cancer Agency are increasing dramatically and unneeded therapy could be avoided with genetic profiling.
 - BC has a database that could support such profiling and analysis.
 - This is not a new discovery; it is simply just extracting existing information to administer better treatment.
 - This is applicable to cancer and other diseases and needs action and priority to be realized.
- This is a proactive approach that targets prevention to improve health outcomes and decrease costs.
 - Province has the capabilities to get ahead of the curve and the opportunity is now given the availability of information.
- Tumor repository on the Island can work with collocated proteomics lab, presenting tremendous opportunity for research and follow-up.

Message to the PTC

- Policy changes and assessment of privacy impacts are needed to enable the use of genetic profiling to administer better treatment.

DANIELS ELECTRONICS

Anna Junge

- Representing human capital issues.
- Surveyed 12 companies on the Island and came up with the following issues:

Youth

- Marketing of high technology and opportunities in trades is needed to encourage youth to enter the sector.
- Cooperative education is often overlooked as a way of training and retaining graduates, thus most leave the Island.
 - Suggests co-op wage subsidies to encourage the development of local talent.

Recruitment

- Awareness of high technology opportunities on the Island must be raised to draw talent and support local economic development.
- Consistent salary statistics would help in negotiating through pay differences between the Island and Mainland.
- There is an opportunity to tap skills of new immigrants whose foreign credentials are unrecognized.
 - A co-op style program is used in Ontario to help new immigrants obtain local job experience.

Employment Standards Act (ESA) Changes

- Organizations are still unsure of how the recent changes benefit them, and thus are slow to adapt it.
- Employees see changes as more of a benefit to the company than to themselves.

Link to international parent company

- Foreign parent companies often attempt to apply their rules here.
- There are difficulties in harmonizing policies across borders.

Start-up and Established companies have different issues

- Human resource (HR) support is needed for both start-up and established businesses.
- Smaller companies are in need HR advice early on but often cannot afford it.
 - VIATeC does provide some programs, but more training is needed.
 - There is an opportunity to offer employee benefits to start-up companies through volume deals made by technology organizations.

Message to the PTC

- Human capital is an important factor in developing BC's technology industries, and is of specific concern on the Island where attracting, developing and retaining employees is a unique challenge.

CELLFOR
Wolfgang Schuch

- Company is applying biotechnology to breeding in forestry using somatic embryogenesis, a process which involves no genetic modification.
- Target is to produce "elite" conifer seeds more resistant to disease, have higher yields, is suitable for various climates, and will contribute to carbon sequestration.
- Company is thriving on the Island and using talent of local people, employing over 90 highly educated workers.
 - Have been able to recruit people from abroad with the opportunity to change the world and leverage a sizable market opportunity.

Message to the PTC

- Access to capital remains an issue in fueling growth and development of businesses on the Island.

RPA SYSTEMS FARM
Patrick Arnold

- Related a story in collaborative research mismanagement.
- Partnerships with advanced research institutions are difficult and there is no forum for discussing failed partnerships.
- RPA Systems Farm was founded in 1994 and provides advanced Microsoft systems solutions which focus on productivity, safety and patient care in the health sector.
- Company collaborated with a major university on three public-private partnership (P3) projects started in early-2002 and it:
 - Donated \$40K worth of hardware for which a tax receipt was never provided; and
 - Contributed another \$300K and between \$1M and \$1.5M in project resources with matching funds from public granting institutions.
- The company also feels that:
 - Despite signing of memorandums of understanding (MOUs) it was not clear who was accountable from university;
 - It was eventually shut out of the projects and longer communicated with;
 - They were ultimately used to source federal funding and now the project continues without them; and
 - It made significant contributions but lost out in the end.
- The company has advised the Auditor General, Privacy Commissioner and Provincial Cabinet Ministers, but the company has not been successful in instigating further dialogue.
- Key problems the company feels it encountered:
 - University was ill-prepared to usher these initiatives forward despite signing MOUs, etc;
 - University used private partnerships to source federal funding with no intention of continuing the projects initiated; and

- Responsibility for projects was transferred and the original private partner was excluded.

Message to the PTC

- Those funded by the province, such as universities, should adhere to government guidelines and standards when forming and managing partnerships.
- A public oversight/adjudication body is needed to settle disputes and hold parties accountable.
- A formal and improved P3 process should be put in place to ensure best practices are used.
- Education around procurement is critical so parties have an understanding of the rules, risks and consequences.

PROCURA

Warren Brown

- Procura is a software company that uses technology in the health sector to improve home and community care and reduce costs.
- Costs in healthcare are escalating and we must learn to leverage the limited resources we have.
- Minor changes in procurement policy can fuel the creation of local companies that can work with large bidders to design exportable health care systems and components.
- Leading and innovative health solutions can be contributed to by local technology companies.

Message to the PTC

- Create incentives for large companies bidding on large projects to engage local companies in delivering solutions and transfer knowledge and skills.

POWER MEASUREMENT

Brad Forth

- Power Measurement is the largest technology company outside of Vancouver.
- The company took a boot-strapped approach to growth.
- BC represents only 2.4% of Canada's total technology exports compared to Alberta at 6.7%.
- Many technology companies are not profitable.
- Metrics such as Economic Value Added (EVA) would serve to better allocate capital for sustainable growth.
- Government should not try to pick winners (i.e. single out industry sectors or clusters).
- Providing tax credits for SR&ED should be a high priority.
 - Increasing SR&ED should have greater priority than increasing investment tax credits as providing incentives to technology companies is more effective than providing incentives to technology investors.

- Personal income tax rates are still too high for the high wage earners hired by technology businesses.
 - Capital gains relief helps, but dividend treatment is still not favorable.
 - Supports PTC recommendation on eliminating the double taxation of foreign workers.
- Human capital is the most important area in which government can have an impact.
 - Quality not quantity is more of an issue when it comes to technology graduates.
 - Greatest need is for graduates with a technology background who can understand and communicate in business.
 - Cooperative education programs are superior to regular, straight through programs.

Message to the PTC

- A new breed of technology workers with both technology and business skills are needed.
- SR&ED incentives should be continued and increased since it reinforces the importance of sustained profitability and measures such as Economic Value Added (EVA).

SCOTT PHILLIPS ENGINEERING **Scott Phillips**

- Company provides medical product development services and some manufacturing services.
- Companies on the Island have to be resourceful in developing solutions.
- Medical devices are a \$4.3B market in Canada (\$270M in BC), and are subject to a high degree of regulatory compliance.
- Medical devices represent a good opportunity for BC.
 - Spending on medical devices and health care overall is rising;
 - Devices are a tangible product that rely on other business suppliers; and
 - Return on investment (ROI) in the industry is good.
- There is not a well developed support system for regulatory compliance in medical devices.
 - Company has been audited to ISO 13485 standard, but it had to fly in an auditor from California since there are none in Western Canada.
- Hiring talent is an issue, especially in the medical devices field and training is a long process.
- Company finds that they have to compete against public institutions like BCIT who provide engineering consulting.
- Welcomes government support of local associations such as VIATeC and the role it plays in fostering technology industry development in the region.
- Business in Seattle for the company is critical and competitive air transport there is needed.

Message to the PTC

- Welcomes government support of local associations such as VIATeC and the role it plays in fostering technology industry development in the region.
- Cooperative education is supported; however, financial assistance in covering their wages would help justify the cost of hiring and training them.
- Maintain support for SR&ED credits.

APPLIED MICROSYSTEMS

Danford Bodrug

- Applied Microsystems is an ocean technology company involved in water property measurement.
- Size and nature of Canada dictates that export is essential for success and critical to a company like theirs.
 - Company sells an oil spill detection alarm used in the United Arab Emirates.
- Hoped that Leading Edge BC would be a replacement for BC Trade; but it appears that Leading Edge is more interested in bringing companies into BC rather than marketing the local companies abroad.
- Much of their company's work is done at a foreign site which does not qualify for SR&ED credits; qualification of these activities for credits would encourage export.
- Partnership is essential in their business since it is not easy to train people.
 - Cooperate with universities (facilitated by VIATeC and the Innovation and Development Corporation (IDC) at the University of Victoria).
 - With government facilitation, rich academic resources can aid in BC technology companies in establishing competitive advantages.

Message to the PTC

- Government should help facilitate export of technology to foreign markets for the growth and development of the BC's technology industry.
- Qualification of development activities done on foreign shores by Canadian companies for SR&ED credits would encourage export activities.

INNOVATION AND DEVELOPMENT CORPORATION (IDC), UNIVERSITY OF VICTORIA (UVic)

Tim Walzak

- IDC is UVic's technology transfer office.
 - IDC partners with the faculty, students and entrepreneurs on projects contributing to local economic development.
 - IDC transfers UVic innovations to the private sector, supporting and promoting regional economic development.
 - IDC has been funded by the provincial government since 1993; however, it's budget is being cutback.
- IDC leverages federal dollars that often require provincial government funding as well.

- Currently, they must engage multiple Ministries individually to source funding (was the Ministry of Competition, Science and Enterprise in the past).
- There is no longer a single internal champion with a quick turnaround capacity that matches the federal government.
- Presently developing a Vancouver Island Technology Transfer/Economic Development Strategy (UVic, Royal Roads and Camosun College under an umbrella) to seek and leverage federal funding.

Message to the PTC

- Province should maintain core funding of entities like IDC and "step up to the plate" to support additional regional initiatives that access federal funding.

**THE CANADIAN INFORMATION PROCESSING SOCIETY
Dr. Mir F. Ali**

- Conducted a study in Educational Adequacy.
 - Enrolment in IT courses/programs is shrinking and off shoring is increasing.
 - IT graduates are not taught/trained adequately to represent a substantial level of knowledge in their field.
 - Institutions offering the same disciplines vary in their course content.
 - Currency and quality of materials offered by institutions are often questionable.

Message to the PTC

- Government should consider regulating IT courses in the same manner as all other professional courses.
- Appoint a central and legitimate source to provide IT course/program guidelines and have it audited by a body such as the Private Post Secondary Education Commission of British Columbia (PPSEC).