

# **SUMMARY**

### REGIONAL CONSULTATIONS **PRINCE GEORGE** FEBRUARY 26, 2004

**PREMIER'S TECHNOLOGY COUNCIL** 

This document is a summary only of presentations made during the regional consultations in Prince George on February 26, 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.

### PRINCE GEORGE CONSULTATIONS

: Thursday, February 26, 2004 Date

#### : 10:15-18:30 Time

Location: Room 6-211

**Conference Centre** University of Northern BC 3333 University Way, Prince George Attending:

- Jim Mutter, PTC President
- Mike Calyniuk, PTC Council Member
   Denis Connor, PTC Council Member
- Bill Koty, PTC Council Member
- Len Juteau, PTC Director of Operations
   Derrick Chee, PTC Analyst

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13:00-13:45	Northern Health Authority	Jeff Hunter June Clark	4
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### INNOVATION RESOURCE CENTRE (IRC) Dawn Miller

#### Background

- IRC is a non-profit society in Northern British Columbia providing:
  - mentorship and business coaching to local entrepreneurs
  - facilitation of local technology development and innovation

**Provincial Context** 

- Baxter Report recognizes contributions and innovation from the province's interior (\$27 billion of BC's \$33 billion in exports)
- Youth are migrating from the region for better opportunities and recovery of this talent is difficult

Promoting Innovation and Commercialization

- PIC Report (Promoting Innovation and Commercialization in Rural BC) endorsed by WED (Western Economic Diversification) as a guide to investment in rural BC
- 4 key findings:
  - 1. Basic foundation for rural innovation exists in BC
    - UNBC, 103 institutes which are mostly government funded (see PIC report appendix for full list)
    - Limited funding and coverage of large region makes innovation more of a challenge
  - 2. Innovation is occurring in the regions but at levels lower than that of major urban centers
  - 3. There are challenges to building on the initial foundation to establish an innovation system that will enable existing and emerging rural clusters
    - WED initiatives, IRAP and NRC programs have been a strong value add and the model for their operation is good
    - WED is funding business mentoring (Business Advisory Board (BAB) Program) with the BC Advanced Systems Institute (ASI) across the regions after achieving success in the capital region
    - Worked to support communication between industry and university
      - UNBC is not set up to do applied research, but pure research
      - Expectation is that colleges will pick up applied research; however, since they do not traditionally have strong capabilities in that area companies work with Alberta institutes or BCIT
      - Current expectation is that companies will support funneling of skilled workers into their enterprise from the local institutions, but that is often not the case
  - 4. Rural businesses face unique challenges
    - Marketing of entire group of companies in the region is more effective
    - Applauds the inception of Leading Edge BC and its effort to market BC businesses as well as build links to rural business communities

Access to Venture Capital

- Allocated VC tax credit caps were oversubscribed for this year
- Not lifting the caps run counter to the aim of tripling the amount of venture capital in BC in 3 years
- A continuing challenge to get funds into rural areas

- Funds have to be built locally and supported by policies and tax credits
- Many companies feel it necessary to locate in Vancouver to be credible and that their local communities have policies that make it difficult for them to justify staying

Procurement for 2010

• Local communities want to participate and be fairly included in the competition

#### Messages to the PTC

- Support the creation of provincial policies and priorities that assist the of diversified regional economies
- Support the creation of new research facilities in regional areas of the province as well as the relocation of existing research facilities to appropriate regional locations
- Support policies to increase provincial tax credit allocations and provide certainty that approved allocations will not be reduced
- Support the development of processes to make sure that all companies have the information on how to participate and are included in procurement processes
- Foster the growth and development of regional technology companies
- Commercialize more R&D in the region

#### UNIVERSITY OF NORTHERN BRITISH COLUMBIA Charles Jago, Max Blouw, Lynda Williams, Saif Zahir, Craig Norton

The Final Mile

- University has been working on education technologies to support the medical school expansion
- Applaud government's support of technology infrastructure in the region
- Presenting challenges and issues going forward:

**Recent Initiatives** 

- PGTX (Prince George Transit Exchange) developed in partnership with the City of Prince George
  - High speed fiber backbone linking city and university
  - o Central office in city hall where network is linked to the world
  - Have provided much needed technology infrastructure for companies, many coming out of the universities
  - Hospital and library are provisioned by the network, however, schools and colleges provisioned by PLNet are not
- ORAN (Optical Regional Area Network)
  - OC48 connection in partnership with TELUS that connects to PGTX
    - Clear benefit to image-intensive application
      - E.g. University worked with Foreign Tech to use CT scanners on logs to maximize use of material – ORAN makes real-time control and management of this system from a distance possible
  - Northern Medical Program (NMP)
    - E-learning technologies are critical
    - 24 students per year, 200 total with students at both UVIC and UBC
    - Half a semester spent at UBC, remaining years are at UNBC and clinical sites in the region
    - ORAN will pipe the lecture to distant locations

- Issue of Priority the digital divide
  - Opportunities provided here are not readily available in the extended region
    - E-health, e-learning and commercial opportunities are limited as a result
      - E.g. Critical to operation of research forests and field stations and the region's ability to attract researchers
  - Expansion of broadband and associated investments are needed

Opportunities for Research and University/Industry Linkages

- Providing certificate and outreach course via e-Learning
  - ASI research grant allowed for the establishment of and Image Processing and Visualization Centre which is working on medical imaging and GIS (geographic Information Systems) and remote sensing data processing applications
  - Creating 3 research groups:
    - Novel web agent
    - Reusable modules for web design
    - Testing video over wireless networks
- Building bridges with IT industries in Northern BC
  - Terra Cognita UNBC collaboration contract
  - Creative media and marketing group individuals pulling resources together to offer programming and design services for e-learning, e-health, e-commerce, etc. applications

E-Leaning Initiatives, Challenges and Directions

- Used proven technologies (a learn to walk approach)
- Beginning to integrate more advanced applications and technologies
- Challenges
  - Not leaving people behind by building and extending tools
  - Not getting left behind; working to stay up to speed

Northern Medical Program, Prototypical Week and Delivery Technology

- Students like the e-learning video conferencing technology, and find they are able to concentrate better
- Working on frontier of learning technologies (e.g. testing pre-production video conferencing technologies)

Conclusion

ORAN was a key foundation piece - Northern Medical program is the principal application driving technical development

Obstacles

- Improving network capacity for the wider northern region which the university serves
- Northern Medical program drives the need and will have the potential to improve healthcare
- There are content development opportunities
- Pioneering the training of physicians for rural practice and medical education

Discussion:

- New buildings have wet and dry lab capacities and are both research and teaching oriented
- Savings in training medical students at UNBC?

- Northern Medical Program is increasing the capacity (doubling the number of students) of the medical school meeting the needs of the North, albeit the number of graduates it still insufficient
- Much more costly to establish another medical school
- Commercialization of model?
  - University of Washington State has a program, but this Northern Medical Program (NMP) is unique
  - Vendors are interested in what NMP is doing and the collaboration amongst the universities pushing the frontier and the possibility of gaining future investment from larger companies
- Opportunities for synergy in getting rural doctors comfortable with e-health?
  - E-Health applications are happening and UNBC is keen on opportunities
    - E-Health model linking rural physicians across the region is far more effective than linking rural sites to urban sites
    - Bandwidth is need to support the regional linkages
    - Health application is only one area of opportunity
- Rural developed solutions can be exported back to the urban areas (export value)
- Connection of technology with BC's staple resource sector yield profound opportunities
  - Will keep BC resource industries on the frontier

- Expansion of broadband and associated investments are needed providing for interregional connectivity
- Connectivity will support e-learning, research collaboration, as well as e-health and commercial opportunities
- Regions are producing innovations with export value

#### NORTHERN HEALTH AUTHORITY (NHA) June Clark and Jeff Hunter

- There is a human change element to the digital divide as well
- Average age of health professionals is just beyond the familiarity and usage of computer systems
- NHA established in December 2001
  - Covers 2/3 of province, population of 380,000
  - Less than half live in rural centers of 10,000 or more
- Technology strategies driven by health mandate and needs
  - Telehealth clinical, education and administrative applications
  - o In the process of integrating clinical and decision support systems
  - Support for medical/professional education
    - Some of the existing telehealth infrastructure is being used to access educational opportunities
  - Electronic health record integrated, secure and accountable across the health services
    - Running limited application (Synapse)
    - Challenge in converging the data provided by equipment into the record
  - Utilizing VoIP and enabling a ubiquitous network that allows for prioritization
  - Collaboration and partnerships

- Collaborate and partner with PGTX and TELUS
- Work with the Health CIO Council and it various working groups and university affiliates
- Benefits
  - Telehealth medicine reduce travel by bringing services closer to home
    - Preventive health benefits
    - Improving delivery of healthcare
  - Sharing and integrating information in the interests of the client
  - Continuing medical/professional education
    - Fostering rural retention of health professionals
  - Supporting use of an EHR
- Barriers
  - Lack of high-speed services in the North
    - Need for services are greatest in remote areas
    - Unlike urban areas where major centers need to be linked, rural areas require remote to remote site high speed linkages
    - Have to deal with TELUS, NorthwestTel and CityTel
    - Videoconferencing is not the only telehealth application
      - Other applications requiring less bandwidth can also be employed
  - Resources
    - Lack of funding for key projects to further these technologies
    - Difficult to attract individuals with specialized knowledge and IT development skills
  - Canadian Health Infoway
    - Good to have sources of funding but it has been difficult to access
      - Travel to provincial meetings is expensive
- Suggestions

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- Support high speed broadband expansion
- Provide key funding for key projects
  - Provide resources for development of technology skills and development
    - Increase seats for training and provide direct funding for skills upgrade
- Progress
  - Physicians' Fiberoptic Network connects all physicians in NHA and allows access to EHR (Synapse)
  - Teleradiology in Quesnel, Prince George, Prince Rupert, Stewart, Dease Lake and Terrace – more sites to be installed
  - o Expanded WAN to all of NHA
  - Connected to UNBC and UBC fiber
  - Member of the BCNet/PGTX project with UNBC and City of Prince George
  - Developing P3 relationships with vendors
  - Salaried physicians providing pediatric echocardiograms and psychiatric consults

Are other health authorities involved in P3 opportunities?

- For Xerox, it was an opportunity for them to replicate into the other health authorities
- Health authorities are collaborating to drive down pricing received through TELUS
  - Beginning with all in effort at the CIO Council
  - Competition is driving innovation at present
  - Aggregation of networks is a challenge because of different QoS and prioritization schemes, but it does make sense on the procurement side

- Have yet to standardize on vendors across the health authorities
  - Standardized on email, OS, and other applications
  - Want to maintain flexibility in their designs
  - Prefer to not be mandated to buy only through aggregated program

Are business cases used to justify broadband?

- Business cases are made for consolidating onto the data network which have a high capital outlay
  - In many cases a 10-month payback on the investment was achieved

#### Messages to the PTC

- Prefer to not be mandated to buy only through aggregated program in order to design flexibly
- Support high speed broadband expansion and provide funding for key projects
- Provide resources for development of technology skills and development
- Unlike urban areas where major centers need to be linked, rural areas require remote to remote site high speed linkages
- Videoconferencing is not the only telehealth application, other applications requiring less bandwidth can also be employed

#### NECHAKO ELECTRONIC BUSING PROGRAM (SCHOOL DISTRICT 91) Ray LeMoigne and Dave Gregg

Background

- Ray Lemoigne is a former district coordinator and now a Principal
- Dave Gregg is one of the founding directors of BC Ed online
- Program is in its 11<sup>th</sup> year
- Over 1000 students, largest online learning program in BC
- Government lifting cap has allowed their enrollment to grow

Visions, Goals and Issues

- Desire to offer flexibility and operate flexibly
- Take a holistic and community based approach to their offering

#### Issues

- Some legislation and policies are restrictive
  - Policy should not state that parents are not teachers, because they are key to programs like e-bus
  - E-exams would allow learners to avoid discomfort in writing exams in a classroom with students they do not know
- Need flexible pacing for the unique learners in their programs
- Need a champion and advocate within government
- Continue to bridge the digital divide
- Support small secondary schools and be student driven in offering education
  - Reliable digital pipe (PL Net crashes frequently)
    - Need a high quality provincial learning object repository
    - o Teachers need to be trained on and familiar with technology
    - Use synchronous and asynchronous course delivery
- Support of distance schools support workers in their region with children
- Support adult learners through a funding model

- Have taken on 75 adult learners in an un-funded pilot to increase adult secondary school graduation
- Bridge secondary to post-secondary and trade skills offerings
- E-Learning is a way to aggregate teaching resources and make best use of them across the region
- Improving International student's success in K-adult course offerings in BC
  - Use e-learning initiatives to prepare international students prior to coming to BC
  - Attract students to rural areas where better progress on ESL (English as a Second Language) education is often made
- BCEd Online is currently fledgling
  - More coordination and amalgamation of resources is needed
  - Purchasing power of group must be used
  - Membership and will is at BCEd online
    - Current \$20K of funding could be expanded to hire full-time staff and seek grants, as well as coordinate the initiatives
  - E-Bus has developed their own portal because PLNet has not moved fast enough and they don't want to move back and start at the beginning
    - \$650,000 for support, managing of portal from IBM
    - Need to populate it with content
  - Envision an electronic school district
    - Fractured funding, development and offering to date
    - Support full and part-time e-learners
    - School districts are innovating on their own
    - Changes in the legislation can encourage collaboration and shared delivery of services

- E-Learning is a way to aggregate teaching resources and make best use of them across the region
- Need a champion and advocate within government
- Continue to bridge the digital divide

#### ABC COMMUNICATIONS Bob Allen

- Formed in 1989, locations in Prince George and Penticton
- \$4M/year Internet Service Provider (ISP)
  - Fixed wireless systems
  - Holder of 3.5ghz license for Northern BC
- Part of Open Source Solutions (consortium of Northern ISPs that bid together on government tenders)
  - Applauds fairness of CITS (Common IT Services) tendering
  - Supplied district of Welles with high-speed internet based on past feedback given to PTC about opening up tendering
- Innovation Resource Centre (IRC) and Technology CEO Council have made the region a better place
- Advocates equal access for wireless providers
  - Serious resistance from private landlords to allow fixed wireless antennas on their buildings

- Joint Solutions Procurement Large tenders preclude smaller players from participating
  - Want an ongoing dialog into practices and tendering, and a fair chance at participating
  - Possible to require larger vendors to subcontract small BC companies
    - Perhaps a point systems as a opposed to cost driven evaluation would be beneficial
  - o PTC is looking at holding a follow-up procurement seminar in the summer
    - Suggested that seminar be focused on smaller providers
    - Joint Solutions RFPs are different from the normal procurement process

- Joint Solutions Procurement Large tenders preclude smaller players from participating
- Possible to require larger vendors to subcontract small BC companies on a points system

### MILLER SOFTWARE CONSULTING Daniel Miller

- Success story
  - Rapid software development company based in Prince George
  - Have provided services to technology companies for the last 6 years
  - o Graduate of UNBC and started with contract opportunities
  - Revenues increased 500% between 2<sup>nd</sup> and 3<sup>rd</sup> year based on services delivered in the Northern Region
  - Spun off 2 companies and acquired consulting company, and are partnering
  - \$4m/year in revenue and employ over 30 people
- Turnover rate is very low and its customer satisfaction levels are very high
- Employ many UNBC graduates; the university has been a critical source for talent
- Applauds SR&ED tax credit and IRAP program
- Business counsel from other businesses and organizations has made up for lack of formal business training
- Education should be a key element to technology advancement and economic diversification
- Other success stories:
  - Environment Dynamics (started by UNBC graduates?)
- Adequate access to work from Federal and Provincial governments
  - Presently easier to get contract work from private sector

- Education should be a key element to technology advancement and economic diversification
- There are technology success stories in the regions
- Difficult and costly to obtain contract from both the Federal and Provincial governments

#### COLLEGE OF NEW CALEDONIA (CNC) Dr. Don Precosky

Background

- Campuses in Prince George, Quesnel, Burns Lake, MacKenzie, and Vanderhoof, all of which are wired with high speed internet
- Experienced in correspondence courses and new to online learning
- Only institution to offer developmental disability program
- Technology has been an integral component throughout the college
- Have hired an education technology coordinator for the first time and are In the process of marshalling resources to tackle e-learning (looking at forming a department)
- Participant in Applied Business Technology Certificate developed through Centre for Curriculum and Technology Transfer/C2T2 (evolving to BCCampus)
- Provision of online courses is an opportunity to provide smaller regions with courses
- Work with a group of colleges to jointly offer a breadth of courses that allows for advanced level standing in universities
- Satellite campuses have center for online learning which offers local support to distance students

Challenges

• Online course development is expensive and being a part of the BCCampus online consortium is beneficial

#### Messages to the PTC

- Access and training is necessary for distance learners
- Success through partnering and contribution to and usage of BCcampus
- Pleased with PLNet access at CNC, fewer service outages, 10mbps share Ethernet in Quesnel

#### COLLEGE OF NEW CALEDONIA

#### Dr. June Anonson

- Goal is to empower clients and patients to care for themselves
- View technology as a health practice enhancer not a replacement
- Human component of healthcare system is its center, and as such it should be a part of education and training provided
- Currently use Web CT to deliver course material in conjunction with instruction at bedside with clinical expert and clinical/computer lab
- Have equipped students and faculty with PDAs to use in clinical setting to capture data and access medical references
- Collaborating with an institution in Korea using a computer-camera hookup

   Potential to evolve into more sophisticated applications

#### Messages to the PTC

• View technology as a health practice enhancer not a replacement

#### TELUS Kevin White

Education Priorities

- Responsible for BC Heartland area
- Mandate is to rebuild and support services to government, education and medical sectors
- Focus on education today (other areas were discussed in other PTC consultations)
  - Provide equal access, increased efficiency and manage increased/changing student demand
  - o Improve graduation rates for K-12 and allow for flexibility and mobility
  - Support life long learning and global interconnectedness
- Many stakeholders in both the K-12 and Advanced Education system
  - o TELUS wants to facilitate the linkage of these stakeholders
- Connectivity is critical for e-learning and content development is costly

#### Messages to the PTC

- Individual buildout is costly
  - Efficient solution can only be delivered at a larger scale when parties cooperate and partner
- Government must take a leadership role in bringing together e-learning parties in BC, providing seed funding for curriculum development in the K-12 system

#### MEDICAL OFFICE INFORMATION SYSTEMS Dr. William Clifford

- Family physician in Prince George
- Medical software vendor for practice management and patient care since 1990
- Working with UBC Continuing Medical Education program
- Advantages of IT use among physicians, status and issues:
  - Electronic Health Record (EHR): faster and easier access to organized, legible medical data
    - 7000 deaths per year in US attributable to illegible writing
    - Allows for better follow-up with patients
    - Track medication usage and interaction
  - Access to medical knowledge and search engines
  - o Opportunity to integrate medical knowledge and patient record
  - Improved communication between practitioners (exchange of data and images)
  - Security issues with paper records; better off with controlled electronic access
- Only 3% of physicians store data electronically as opposed to 59% in Britain
- 35% in 150 Prince George significantly use EHR, all have access to high speed internet services
  - Data capture is not an issue among those that have significantly adopted EHR
    - Bottleneck is in integrating the other health information from labs, etc.
  - Older demographic of physicians in Prince George, only 20 are not on the Northern Health Authority (NHA) network
- What can be done?
  - British Columbia Medical Association (BCMA) document suggests subsidizing use of technology (\$8K/year)

- If physicians were compensated for results as opposed to work, better care could result (pay for ends not the means)
- No access to lab reports (HL7 only available to private facilities) and there are difficulties in accessing Pharmanet
- Work to have health data from other providers be provided electronically through interoperable linkages (need uniform accessibility to share information)

- Reward the end product not the means for getting there to encourage the use of IT in health
- Provide infrastructure (i.e. security standard, application and access) that will make EHRs practical
- Subsidize physician hardware and software

#### TERRA COGNITA SOFTWARE SYSTEMS INC. Tim Thomas

Technology industry development and capital in Prince George

- Not economies of scale, but experience know how provides lower costs
- Received NRC/IRAP grant because they have a corporate customer
  - o Often cannot access grants without a corporate customer
  - SR&ED accessible when incorporated, but businesses are only incorporated after one or two contracts
- Government not supporting small business has hurt local economies
  - Sharing in risk that little companies bear, in more than IT, will support rural communities
  - Local communities are less sophisticated investors, and therefore innovative opportunities are often not realized
- For less than a million dollars a year, early contracts for small businesses can be supported
  - Can be delivered through existing Science and Technology infrastructure throughout the province
  - Strongest technology transfer is local graduates building enterprises locally

#### Message to the PTC

• Need for a regional program tailored to the unique challenges and small business opportunities in the North

#### TECHNOLOGY CEO ROUNDTABLE Garth Frizzell

- Group of companies in Prince George that are focused on growth:
  - Need 5 or more employees to join the roundtable
  - Followed same model as Daniel Miller
    - Graduated from UNBC, linked into IRC office and started a local enterprise
  - Roundtable has proved useful for networking and accessing expertise to further grow business and leverage funding available

- Otherwise it is difficult to get outside expertise to come to Prince George
- Opportunities for information sharing and cross learning provided by the Roundtable
- Large clients to be had in BC, but relatively small customers
  - Companies are only starting to come out of UNBC; more are to come
  - Miller Software Consulting, Noratech, Spatial Mapping and others have won awards
- Suggest enhancing and improving IRC infrastructure
  - Full-time resource coordinator
  - IRC funded through Ministry of Small Business and Economic Development

- The IRC has been an excellent resource and should receive more resources
- Innovation initiative for the region is needed

#### PRINCE GEORGE PUBLIC LIBRARY Allan Wilson

- Worked in both corporate and public libraries
- Internet has weakened public libraries
- Mandated to collect information on published materials
  - o Less funding flowing to public libraries, particularly in the North
  - o BC funds its libraries lower than any other province in Canada
- Libraries are open, experienced and non-intimidating infrastructure that can support life long learning in the community
  - Supports literacy and users of e-learning
  - Facilitate access to health and government information
- Has taken entrepreneurial approach in managing small northern public library
  - Forced innovation with less funding
  - E.g. PG is expert in running a system that opens information on legacy systems
  - Advocates rebuilding library infrastructure in area of information technology and automation
  - Youth@BC program has been a success and facilitate 100% employment of students beyond the program
  - Potential to use library program as a voting infrastructure
- Library is connected to PG network
- Library receives most of its funding from the City

- Government should provide a secure, reliable infrastructure to libraries
- Libraries are open, experienced and non-intimidating infrastructure that can support life long learning in the community
- Would like to see the Youth@BC program continue

## COMMUNITY FUTURES DEVELOPMENT CORPORATION (CFDC) - NADINA Kim Martinsen

Broadband Pilot Project

- Background in community and small business development
  - Are 1 of 7 organizations awarded BRAND funding of \$2m
    - Raised matching funds (\$2.4m)
- Covers 7 regional districts, 45,000 people, 2,300 businesses
  - 1% of population distributed over 8% of the province
- Challenges: • Chos
  - Chose Navigata as backbone provider and they are partnering with local ISPs
    - Not going into First Nations (FN) communities where there is no business case
    - Approaching FN to become their own ISPs
      - Advocate government supported training in these FN communities to take up broadband as these are opportunities to support business development and local expertise
  - o 89% of BC's population may be served, but only a portion of the communities are
- Many communities don't have adequate cell or telephone service, and broadband can provide VoIP
- There is a need for community awareness, technical training, appropriate hardware and software, community technology plan and business models to support them

#### Messages to the PTC

• The province should partner with the communities to address their local challenges

#### PRINCE GEORGE CHAMBER OF COMMERCE David Russell

- Applaud inception of CEN-CAP a local VC fund concentrated on the North
- 172 technology companies in local region
  - Higher growth than capital region in the last couple years
  - Represents 5% of technology contribution, employing only 1%
- Strong ties between resource and technology sectors, but there is growth outside of this nexus
- Gap in accessing capital region networks (funding and expertise)
  - Relatively untapped expertise in PG
- Actions requested
  - Promoting technology conferences in the North
  - Bring executives and investors to the North (i.e. Leading Edge BC)
  - Expand Innovation Resource Centre (lauded as a key part of the local economy and its innovation capacity)
  - Migrate traffic to ORAN and the PGTX

- Support the ORAN/PGTX network
- Expand the Innovation Resource center
- Bring expertise to North via investor forums and conferences

#### CITY OF PRINCE GEORGE George Paul and Bill Johnson

- Geography and isolation has driven the community to be innovative and independent

   Point to development of transit exchange
  - Found to development of transit excitatinge
     Fiber petwork is growing and the bone is it will evolve intra-
  - Fiber network is growing and the hope is it will evolve into a utility of sorts
  - Utilitdor underground utility providing scalable expansion of fiber and energy
- Provision of broadband has provided the opportunity to improve the quality of life
- Want to be a partner with the Provincial Government not a supplier in the development and support of the local industry and community
  - Encouraged by CITS to bid as a supplier, which the City views will not realize all the potential synergies and value
    - E.g. Wired medical building happened as a result of partnership with the City and UNBC
  - Some provincial policies and bureaucracy could work better if linked into the government on the ground
  - Opportunity is here now, political will is needed, but risk avoidance often hinders innovation
  - Strong support from local business community
- Willing to help province expand the network
  - School districts, through currently on PLNet, want to be on the PG fiber network
  - CNC and school districts are contracted to use PLNet only
    - PLNet aggregation has expanded the network to 77 additional communities
  - Private sector is moving quickly, more quickly than public sector
  - Progressive communities are getting compromised in an effort to bring everyone up to par
- Response from province has been positive but no progress has been made to date
- Key success factor has been contact between City and the President of UNBC
  - Solutions can be taken to other jurisdictions

- Want to be a partner with the Provincial Government not a supplier in the development and support of the local industry and community
- Progressive communities are getting compromised in an effort to bring everyone up to par on connectivity