



**Strategic
Networks
Group**

Economic Development through Bandwidth

Socio-Economic Impacts and the Business Case for Broadband

**Michael Curri, President
Strategic Networks Group**

**Panel Discussion: Government and Regulatory
June 6, 2007**

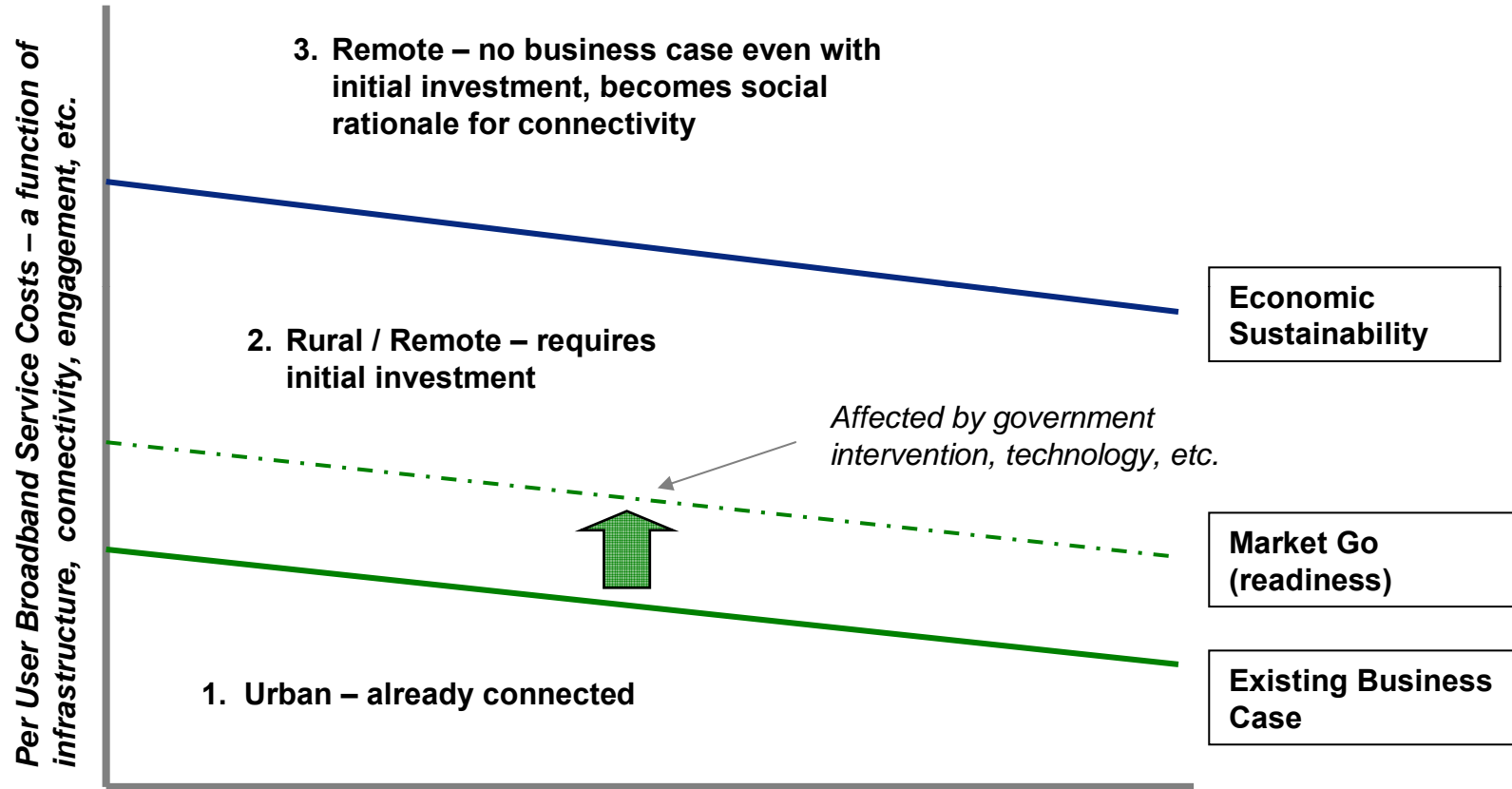
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Economic Impact Methodology

- **Regional surveys collect data to measure broadband impacts**
 - Data from survey of businesses used as input to I-O model
- **Economic Impacts assessed using the Input-Output (I-O) model**
 - Based on Statistics Canada's National Accounting Framework with the capacity to model national, provincial, and regional economic systems.
 - Assessed in terms of increases in: sales, jobs, and the community's tax base.
 - Mathematically portrays transactions necessary among various industries that provide goods and services for consumers, businesses, and government.
 - Identifies the linkages in the economy by representing the interrelationships between products.
 - Provides the full, economy-wide impacts of the final demand (business sales) of various industries on earnings, employment, and taxes.
- **Overall impact to local economy can be estimated by sampling the effects of a specific new stimulus, such as Broadband**

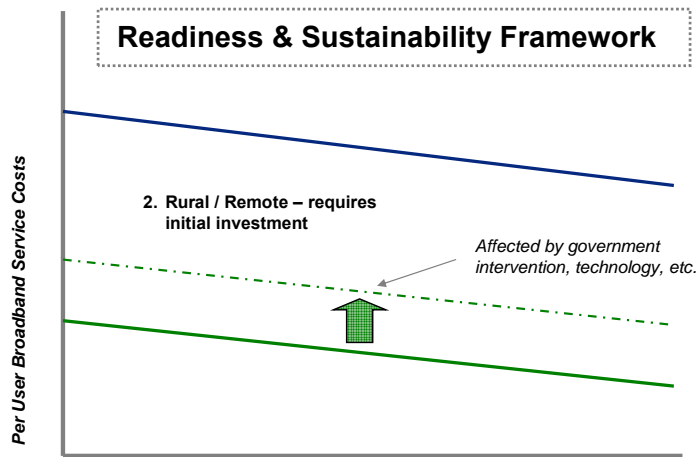
Policy Framework for Community Readiness and Sustainability



Carleton University / Strategic Networks Group
for Industry Canada and Government of
Ontario; March 2005

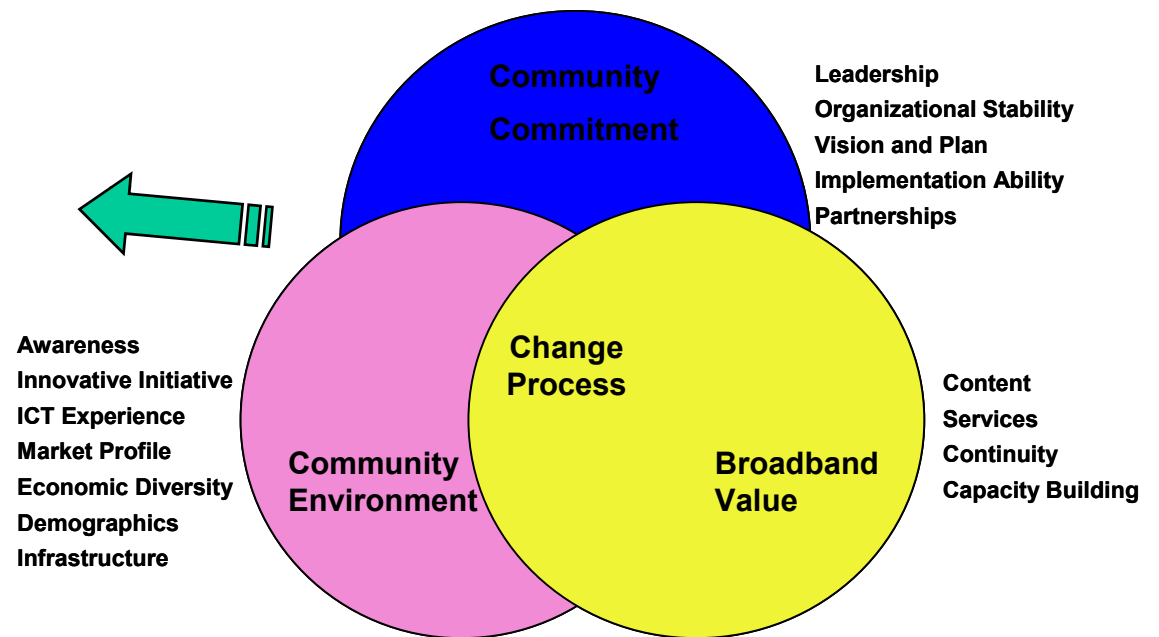
Market Profile – which is a function of readiness and sustainability factors, i.e. critical mass of users, existing infrastructure, etc.

Building a Business Case: Readiness & Sustainability



Carleton University / Strategic Networks Group for Industry Canada and Government of Ontario; March 2005

Readiness & Sustainability Criteria



Carleton University / Strategic Networks Group for Industry Canada and Government of Ontario; March 2005

People make the difference – not technology.



Recent Projects

- ElginConnects (COBRA/BRAND – funded)
- CEONet, (COBRA – funded)
- Chatham-Kent (BRAND – funded project)
- Three MGS Eastern Ontario Broadband Pilot Projects:
 - Arden
 - Apsley
 - Kinmount
- Churchill Manitoba and Parrsboro Nova Scotia (With Dalhousie University and Brandon University for Industry Canada)
- South Dundas (Department of Trade and Industry, United Kingdom)

- Economic Impact Model (FTTH Economic Impact Model Project)



Business Case for Broadband

- Broadband has generated significant returns to GDP – over 10 times investment – *South Dundas*
- GDP returns far exceed private sector returns based on subscription revenues
- For under-served markets, must assess **economic case** in addition to **business case**

Business Case for Broadband

$$\begin{array}{rcccl} & & \text{Costs} & \leq & \text{Revenues} \\ \text{Initial Costs} & + & \text{Ongoing Costs} & \leq & \text{Subscription Revenues} \left[+ \text{Gov't Funding} \right] \end{array}$$

GDP and tax benefits drive investment

Carleton University / Strategic Networks Group for Industry Canada and Government of Ontario; March 2005



Case Studies: Overall Economic Impacts

South Dundas Township

- ***invested C\$750,000 in 2000 in fibre network***
- \$25.2 million in increased sales in South Dundas County
- 207 persons years of employment
- \$8.0 million increase in tax revenues

Timmins & Cochrane District

- ***invested C\$2M between 2001-03 in broadband applications:***
 - *tele-radiology for 9 remote hospitals*
 - *video-conferencing for 3 college campuses*
 - *enabled new call center*
- \$28.6 million increase in GDP for Timmins & Cochrane District
- 928 person years of employment
- \$8.2 million increase in tax revenues

“...by lots of criteria, it’s good for economic development” *

*A.Brown, Administrator, Township of South Dundas
Harrowsmith Country Life, Feb. 2005



Summary

- Broadband is a priority for maintaining and growing the local economy
- Assessing the ***business*** and ***economic case*** for investing in broadband infrastructure will:
 - Quantify economic return to community / region
 - Determine whether gov't intervention is justified
 - Clarify what type of model is needed - private, public, or joint public-private venture

There is no 'one-sized fits all' solution for investing in broadband infrastructure



FTTH Economic Impact Model *(Project Purpose)*

- .. to develop two (2) economic modeling tools to enable communities and regions to forecast the economic benefits from FTTH.
 - Web-based simplified tool for unassisted use
 - Detailed tool for in-depth analysis (assisted use)
- Informs government and legislative bodies - apply these tools to provide evidence based support for investments in FTTH; making necessary legislation for broadband implementation; contribute to securing budget allocations for proposed FTTH broadband initiatives.



FTTH Economic Impact Model (Project Status)

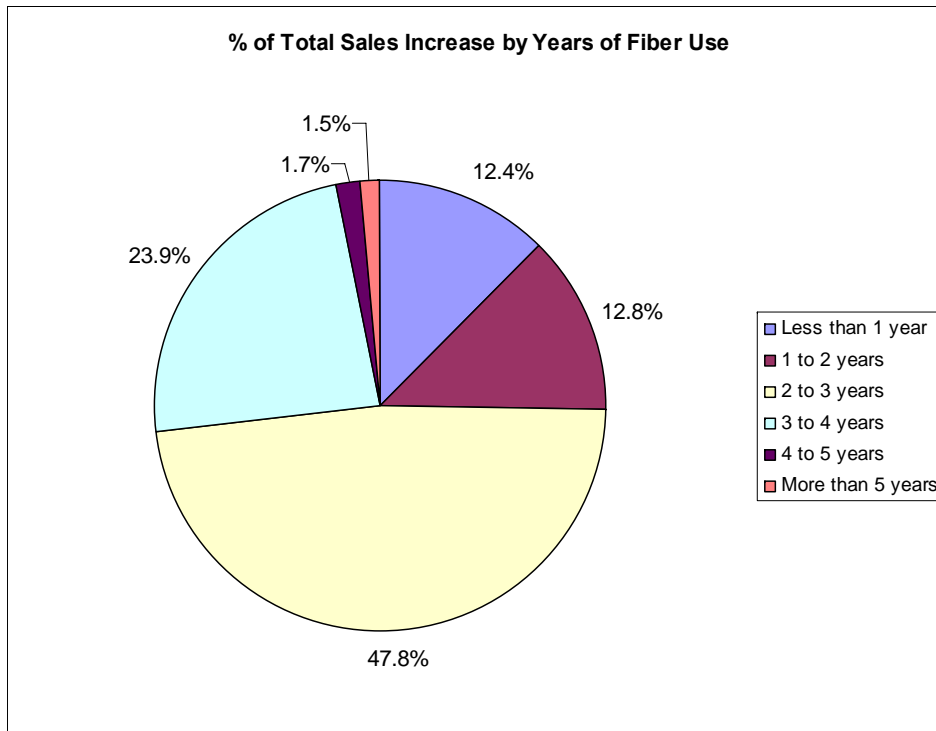
- Case Study Community research completed
 - Surveys completed May 11 for Jackson, TN, Bristol, VA, and Reedsburg, WI
 - Detailed analysis of survey results completed May 31
 - Survey Report provided June 2
 - Related community profile information gathered
 - Selected interviews with survey respondents complete (phone and in-person)
- Preliminary model framework and high-level design completed (Phase 3)
 - Preliminary Design Specification provided April 30 (draft pending completion of community research)
 - Input-Output module design under way for estimation of indirect and induced economic effects
- White paper
- MIT/CMU model assessed with 14 FTTH communities
 - Collaboration with Michael Render



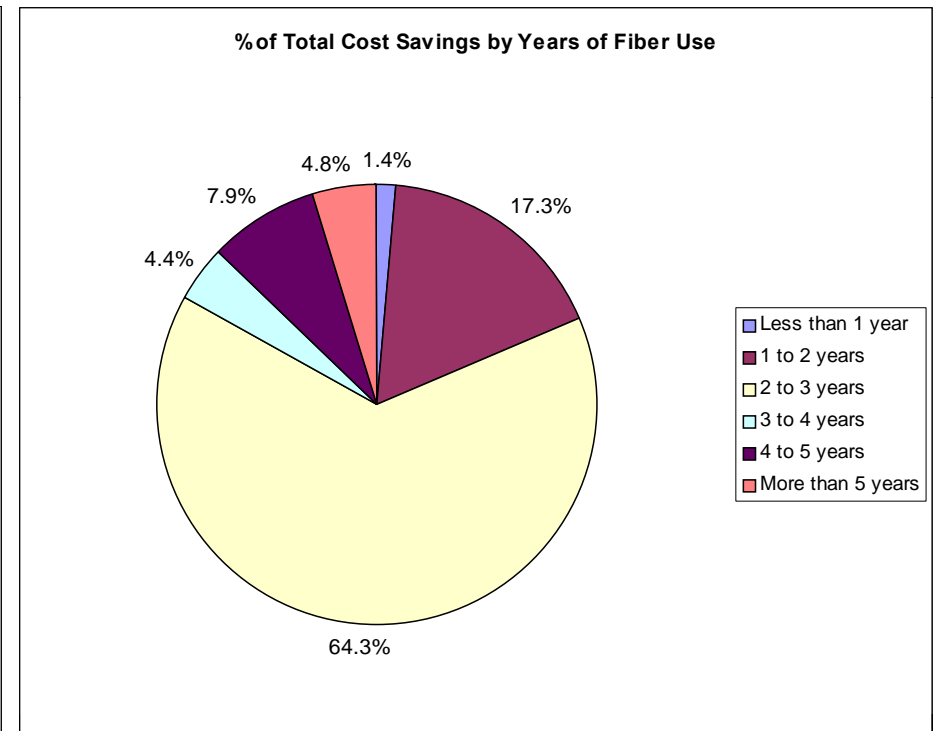
FTTH Economic Impact Model (Some Early Findings)

- Direct impacts of fiber use take time to appear

Sales Revenues



Cost Savings





Role for Regulation

- Our perspective:
 - There will always be services in markets where the business case is obvious – sustainable markets
 - There will be cases where the business case needs a push
 - There will be cases where sustainability will not be achievable without *significant* support
- Regulation needs to support competition in the market place, ensure investors get a fair return, and accommodate those cases where the economic return is not sufficient to entice service providers to enter the market.



About SNG

At SNG we develop solid, pragmatic, and successful strategies for investments in technology solutions within your community.

Our Mission

To revitalize communities with strategic Information and Communication Technology planning based on actionable economic analysis.

Our Philosophy

People make the difference – not technology.

Our Team

An experienced team of specialists who apply proven methodologies and analysis tools in all aspects of ICT planning.

Information and Communication Technology (ICT) – infrastructure, equipment, applications and services that enable electronic communication and sharing of information.



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Thank You

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