



Telecommunications Policy and Regulations to Support Remote and Rural Indigenous Communities

First Mile Connectivity Consortium (FMCC)

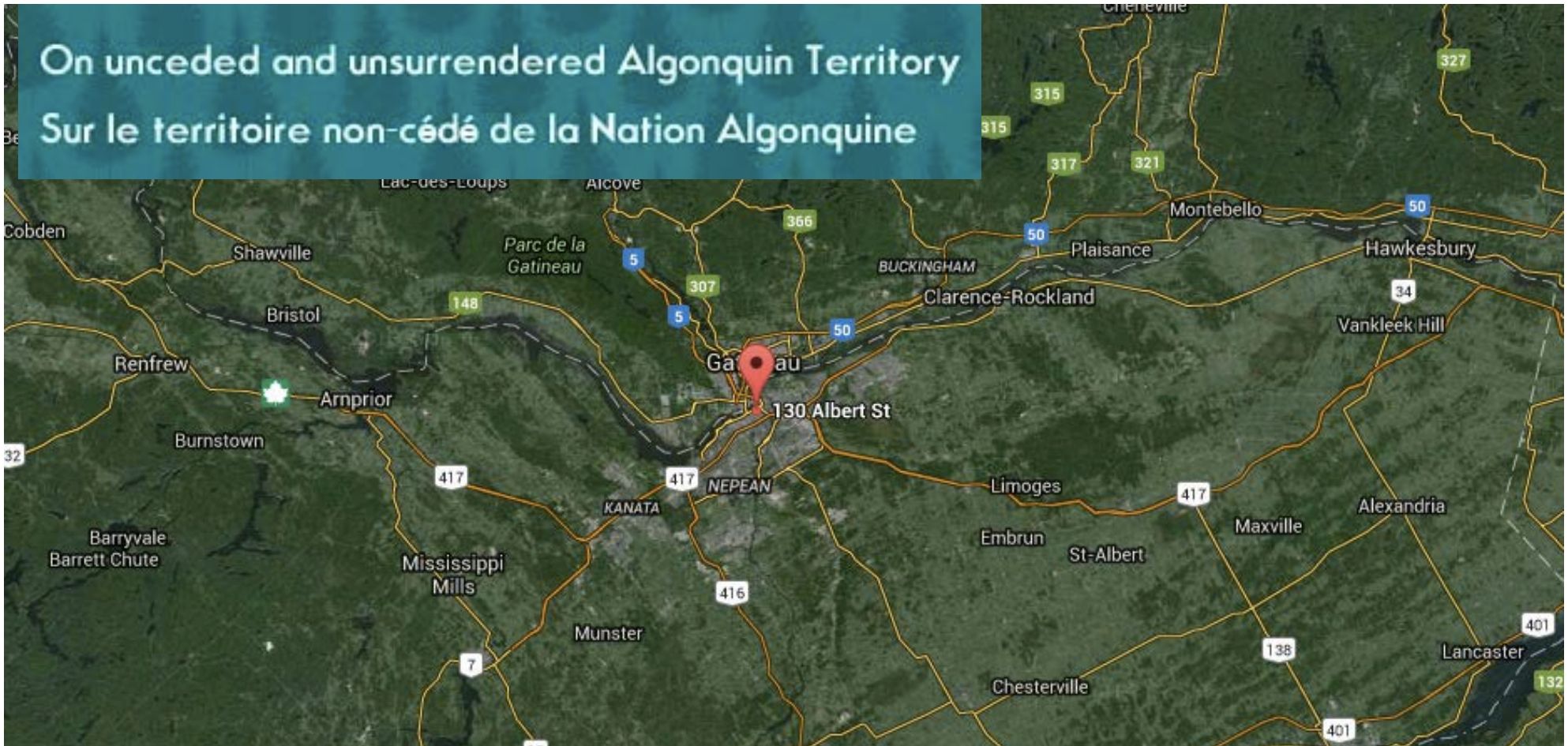
May 16, 2016

Ottawa, Public Policy Forum

Tim Whiteduck, FMCC Chair
First Nations Education Council

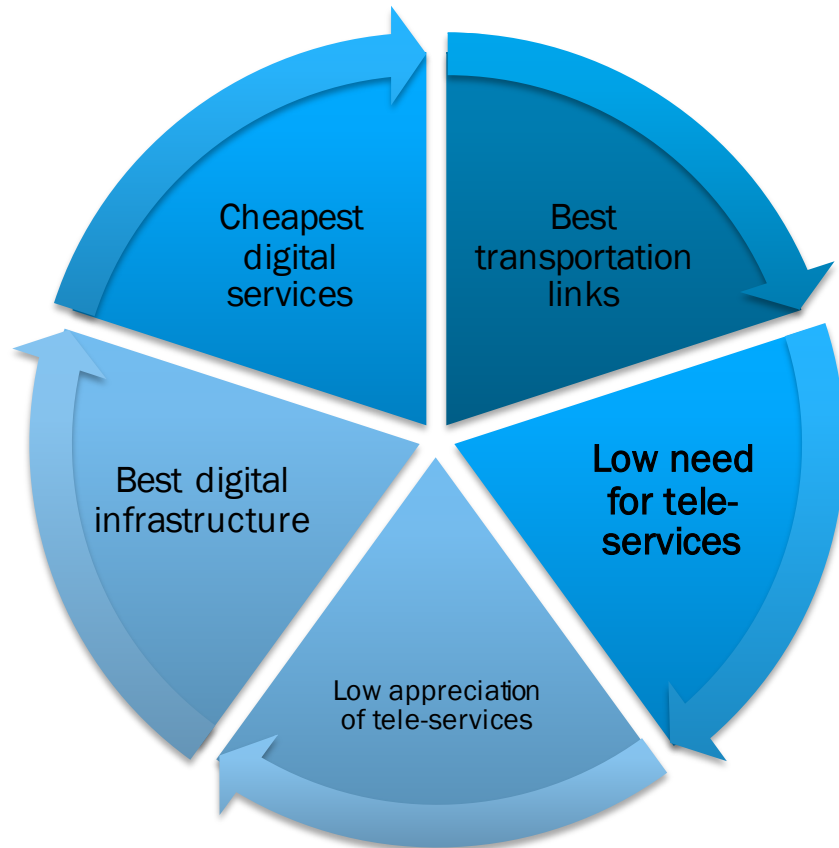
Susan O'Donnell, FMCC Vice-Chair
University of New Brunswick

ACKNOWLEDGEMENT

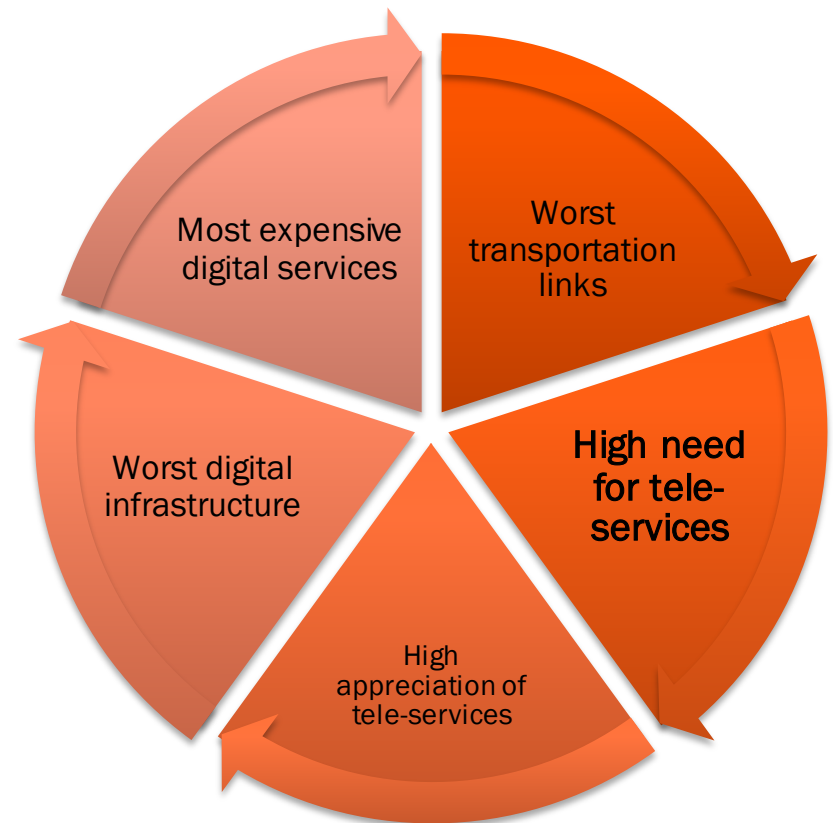


GEOGRAPHICAL PARADOX OF TELECOMMUNICATIONS DEVELOPMENT

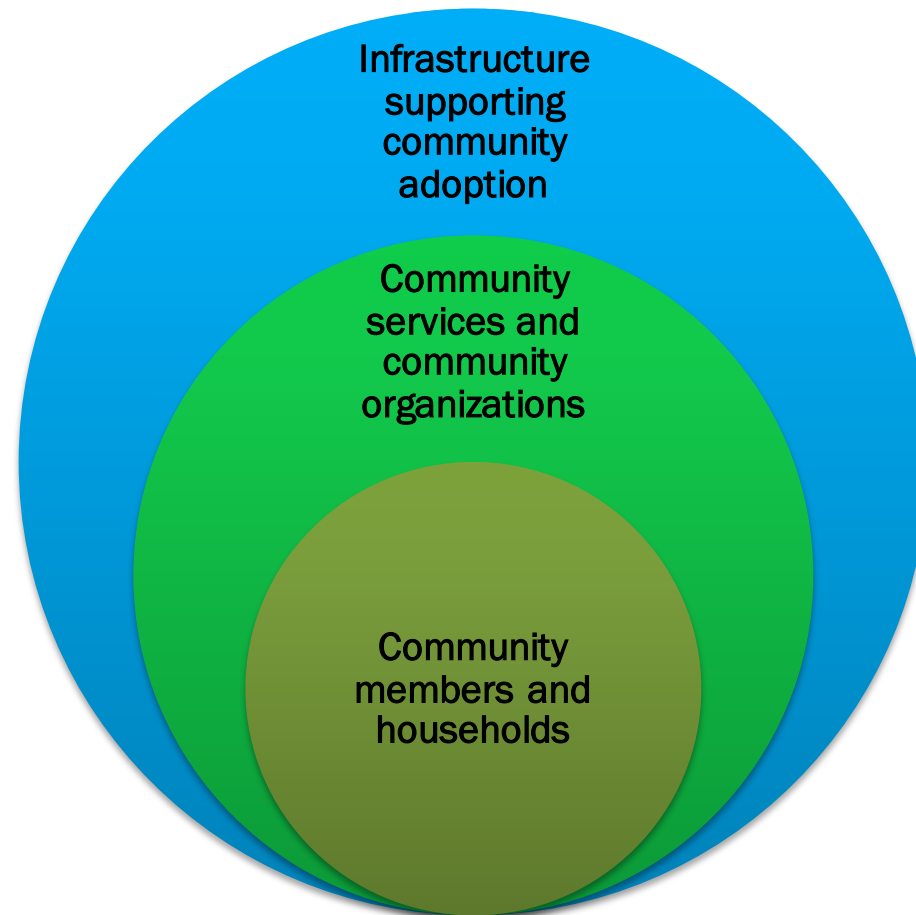
URBAN COMMUNITIES



RURAL AND REMOTE COMMUNITIES



WHOLE COMMUNITY UNDERSTANDING OF DIGITAL TECHNOLOGY ADOPTION IN REMOTE AND RURAL INDIGENOUS COMMUNITIES



DIGITAL TECHNOLOGIES ARE USED BY AND FOR THE WHOLE COMMUNITY

Healthcare, telehealth, and health education

Economic development, business and entrepreneurship

Education and distance education

Indigenous government and governance

Justice, public safety and emergency communications

Community interconnection and interdependency

Digital content about Indigenous culture and identity

Commercial entertainment

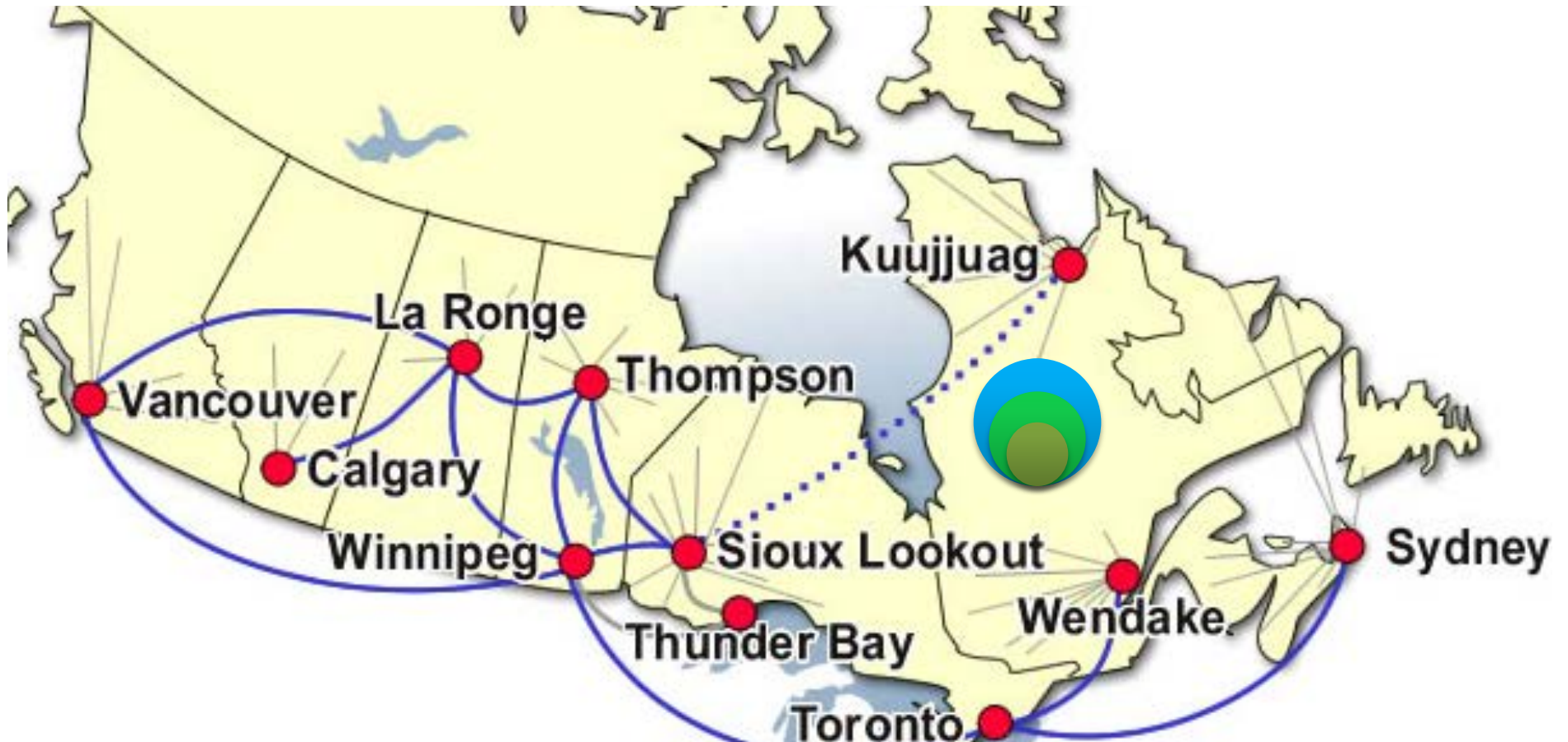
Research, data collection, GIS, report generation

Infrastructure maintenance, remote monitoring

Indigenous resurgence, self-determination and activism

Land-based activities and environmental sustainability

REGIONAL INDIGENOUS COMMUNITY INTERMEDIARY ORGANIZATIONS SUPPORT WHOLE COMMUNITY TECHNOLOGY ADOPTION



ROLES OF COMMUNITY INTERMEDIARY ORGANIZATIONS IN TECHNOLOGY ADOPTION

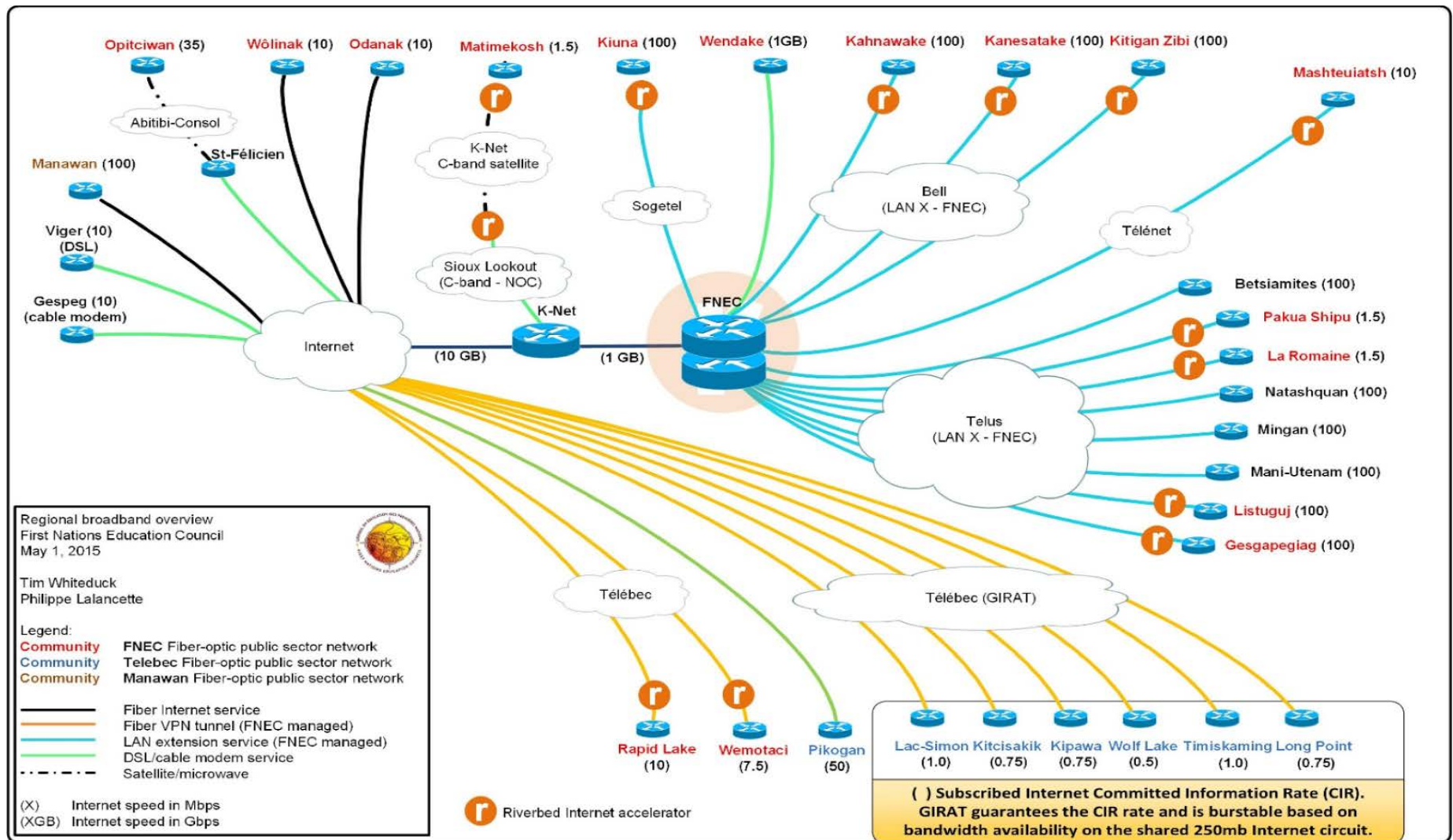
- Advocate for and administer digital infrastructures and services on behalf of their Indigenous member communities;
- Represent and are governed by groups of local communities, allowing residents to access services and benefit from economies of scale otherwise unavailable;
- Use digital technologies to deliver public services and economic development opportunities to the residents of member communities;
- Act as mediators between local, place-based communities and external entities like government funders or corporations;
- Engage in both social and technical activities associated with the effective use of digital technologies;
- Operate complex networks and applications while asserting self-determined development goals;
- Attempt to reform the policy and regulatory frameworks to address persistent digital divides in the Canadian north.

EXAMPLE OF INTERMEDIARY ORGANIZATION: FIRST NATIONS EDUCATION COUNCIL (FNEC)

Established to support 22 member First Nations in Quebec in the domain of education



CEPN-FNEC NETWORK CONNECTING QUEBEC FIRST NATIONS



CEPN-FNEC RESPONSIBILITIES & RELATIONSHIPS

- Aggregate member First Nation communities into a common digital network;
- Secure funding for digital network development; coordinate network builds;
- Manage contracts on behalf of First Nations as required;
- Broker partnerships between government funders such as INAC or Health Canada and service providers (such as TELUS, Bell or K-Net);
- Support those First Nations that wish to operate their own local network by connecting them with funding resources from government departments;
- Provide other services, as required to member communities, including: data management, training, help desk support, access to a videoconferencing bridge and network, and strategic planning, advocacy and research support;

CHALLENGES OF PUBLIC FUNDING FOR TELECOM INFRASTRUCTURE FOR RURAL AND REMOTE COMMUNITIES

Easier to build on existing subsidized urban development

- Roads and other public utility infrastructure
- Public health, education, social services infrastructure

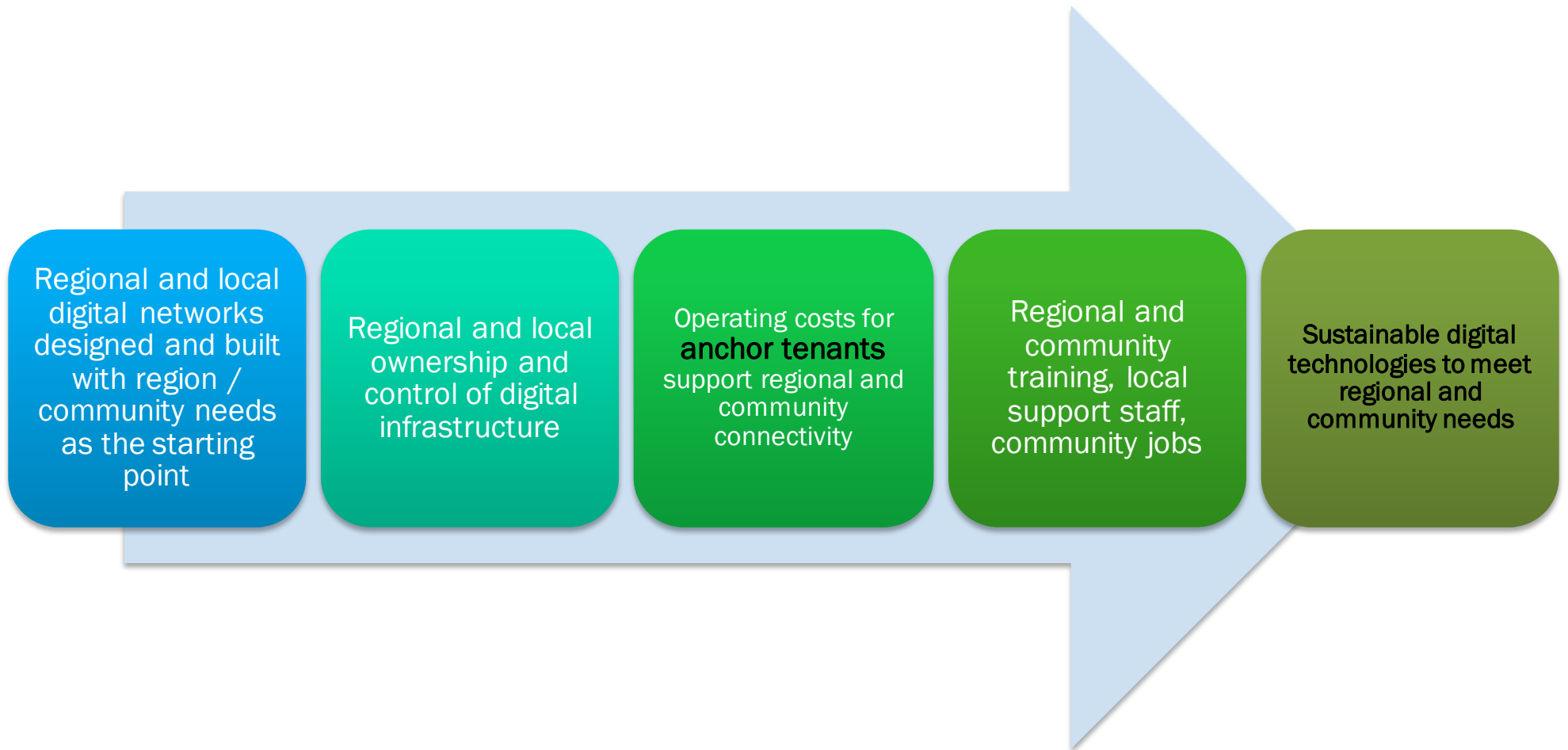
Lack of familiarity by urban dwellers with rural and remote environments

- Choosing high-cost build options
- Systemic privileging of urban perspectives

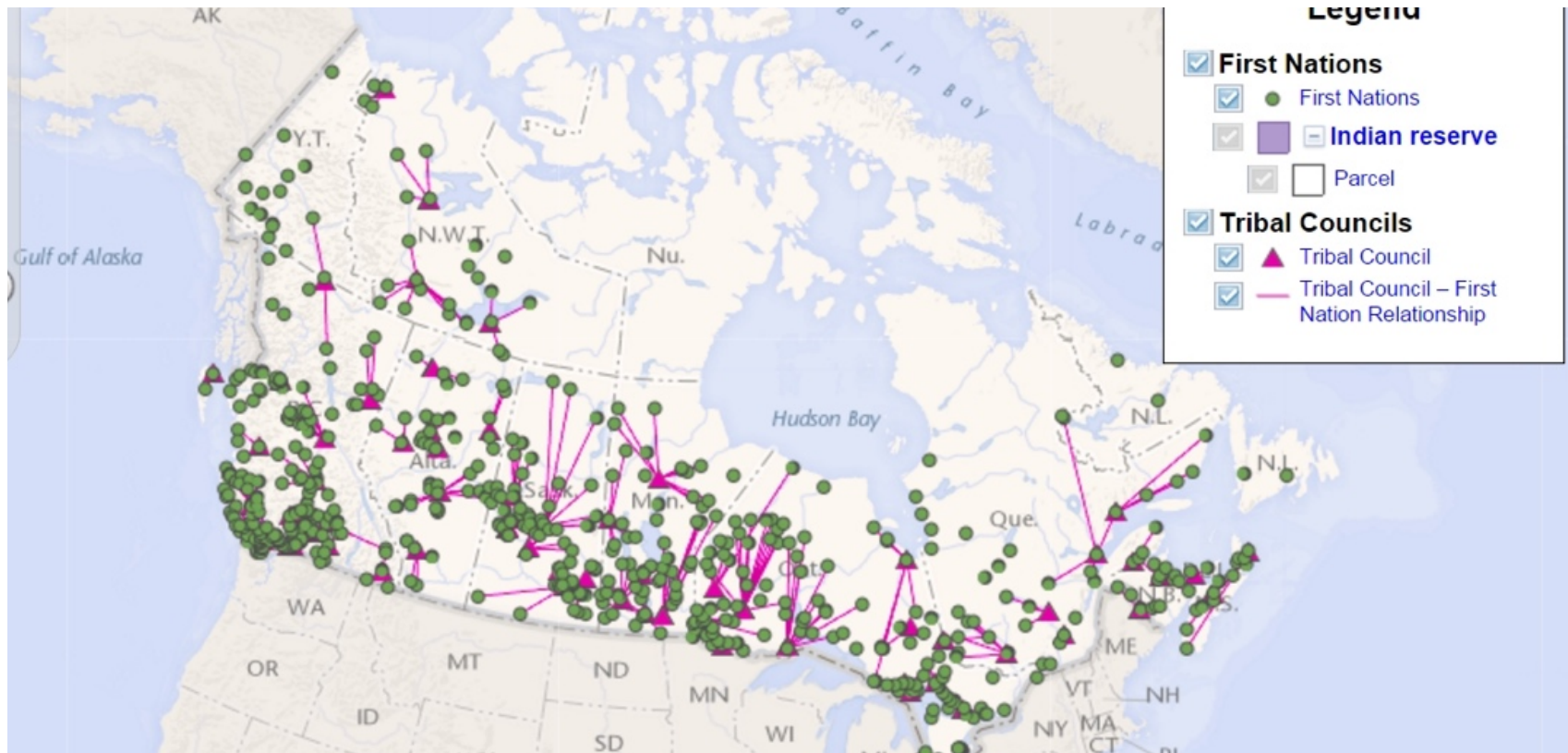
Corporate power

- Corporate political lobbying (evidence at CRTC BSO hearings)
- Most subsidies only available to incumbent telcos
- Lack of business case to build and maintain in remote regions

FIRST MILE TELECOMMUNICATIONS INFRASTRUCTURE DEVELOPMENT



EMPOWERED AND CONNECTED REMOTE AND RURAL INDIGENOUS COMMUNITIES



Map from INAC

EMPOWERED AND CONNECTED REMOTE AND RURAL INDIGENOUS COMMUNITIES



Map from INAC

FMCC MEMBERS



**Atlantic Canada's First
Nation Help Desk**



**First Nations
Education Council**



**Keewaytinook
Okimakanak KNET
Services**



**Western James Bay
Telecom Network**



**Assembly of Manitoba
Chiefs**



**First Nations Health
and Social
Secretariat of
Manitoba**



**First Nations
Technical Services
Advisory Group, INC.**



**First Nations
Technology Council**

FMCC BOARD, MEMBER REPRESENTATIVES AND RESEARCH ASSOCIATES

FMCC BOARD and MEMBER REPRESENTATIVES:

Tim Whiteduck, FNEC Representative and FMCC Chair

Susan O'Donnell, University of New Brunswick, FMCC Vice-Chair

Rob McMahon, University of Alberta, FMCC Coordinator and Secretary

Brian Beaton, KO and UNB, FMCC Treasurer

Kevin Burton, ACFNHD Representative and FMCC Board Member

Penny Carpenter, KO KNET Representative

Bill Murdoch, AMC and FNHSSN Representative

Don Ginther, FN-TSAG Representative

Denise Williams, FNTC Representative

Sally Braun, WJBTC Representative

RESEARCH ASSOCIATES:

Heather Hudson, University of Alaska Anchorage

Franz Seibel, Keewaytinook Okimakanak Research Institute

Fenwick McKelvey, Concordia University

Ben Klass, Carleton University

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FMCC HISTORY AND PARTNERSHIPS

RESEARCH, OUTREACH, AND KNOWLEDGE SYNTHESIS

2005: Research on ICT with Aboriginal Communities (UNB / KO / other partners)

2006 - ongoing: First Nations Innovation (UNB / KO / ACFNHD / FNEC / Laval / U of A)

2010 - 2013: First Mile (Simon Fraser / UNB / KO / ACFNHD / FNEC)

2016: Digital Technologies for Indigenous Resurgence (UNB / MWC)

2005 - ongoing: funded by grants from Social Sciences and Humanities Research Council (SSHRC)

FIRST MILE CONNECTIVITY CONSORTIUM

2012: CRTC Intervention, Northwestel's Modernization Plan

2014: FMCC Incorporated as a national non-profit organization (KO / FNEC / ACFNHD)

2014 - 2016: More partners added (AMC / FNHSSC / FNTSAG / FNTC / WJBTN)

2014 - ongoing: funded by work contracts and projects, contributions from members, cost claims received from the CRTC to support participation in public hearings

2015: CIRA .CA Community Investment grant, ISED contract

FIRST MILE WEBSITE



Home News About FMCC Community Stories Research Online Course



FIRSTMILE

SHARE YOUR COMMUNITY STORY

LATEST NEWS



FMCC MISSION: EVIDENCE-BASED POLICY AND REGULATORY ACTIVITIES

EVIDENCE-BASED POLICY ACTIVITIES:

2015-2016: Innovation, Science and Economic Development Canada – Digital technology adoption in northern and remote Indigenous communities report

2014: Industry Canada – Two submissions on Spectrum Policy (3500 MHz and AWS)

2010: Industry Canada - Consultations contributions for a national digital strategy

EVIDENCE-BASED REGULATORY ACTIVITIES:

2015-2016: CRTC – Review of the Basic Service Objective (BSO)

2015: CRTC – Review of Telesat’s Pricing for Satellite Services

2014: CRTC – Let’s Talk TV Consultations

2014: CRTC – Review of Satellite Services

2013: CRTC – Review of Northwestel’s Modernization Plan

FMCC TEAM AT CRTC – BSO HEARINGS – APR 2016



FMCC PROPOSAL TO THE CRTC: THE NORTHERN INFRASTRUCTURE AND SERVICES FUND (NISF)

Proposes a new fund to replace the Northern Connectivity Fund (only available to incumbent telecom providers). Require a fund linked to new sources of revenues such as from Internet services.

Includes both capital (infrastructure) support and ongoing operational support.

Recognizes some infrastructure support would also come from various government programs. Proposes CRTC provide a coordinating role to bring together supports from different federal agencies

NISF coordinates and supplements existing funding to support predictable, long-term supports

NORTHERN INFRASTRUCTURE AND SERVICES FUND (NISF)

Provide ongoing support to investments and build capacity in communities to support long-term community and economic development opportunities.

Establishes an accountable, administrative mechanism involving government, industry and members of affected regions and communities to review and monitor projects.

Prioritizes the unserved and under-served communities and regions that exist across the country.

FMCC PROPOSAL TO POLICY - ISED REPORT

- Conduct research on digital technology adoption in remote and northern Indigenous communities using the whole-community approach.
- Address constraints and barriers to digital technology adoption in these communities.
- Review existing mechanisms for funding digital network infrastructure development in regions and assess the resulting costs and benefits to Indigenous communities.
- Support approaches for developing digital infrastructure in northern and remote regions that ensure equity, adaptability, accessibility, affordability and sustainability.
- Support the regional community intermediary organizations that provide technical expertise with the resources required to upgrade, operate and maintain the digital infrastructure in remote and northern Indigenous communities.
- Support engagement in policy and regulatory decision-making
- Ensure every Indigenous community has local technical support available.
- Recognize the need for training, skills development and capacity-building in community, at all levels from residents at home and work to community technicians.
- Support local and regional efforts to produce digital content in Indigenous languages.

FOR FURTHER INFORMATION ...

Contact:

- FMCC Coordinator: Dr. Rob McMahon at RdMcmaho@ualberta.ca
 - FMCC Chair: Tim Whiteduck at TWhiteduck@cepn-fnec.com
 - FMCC Vice-Chair: Dr. Susan O'Donnell at susanodo@unb.ca
 - FMCC Treasurer: Brian Beaton at Brian.Beaton@unb.ca
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- Visit the First Mile web site at <http://firstmile.ca> or
 - Call toll-free at 877-737-5638 x 4522

Click on the name of the report for a PDF copy:

- [Digital Technology Adoption in Northern and Remote Indigenous Communities](#)
- [A Guide to Federal Funding for Indigenous Broadband in Canada](#)