

Advanced Manufacturing and IT Sector



Ontario Linkages Project

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Cannexus



The Why of Engagements & Partnerships

1. Addressing the Engagement Gap - Together
2. Recalibrate and Rethink Engagement Strategy
3. An Engagement and Partnership Multiplier Effect

- ✓ Jobs
- ✓ Business
- ✓ Social development



THE ENGAGEMENT GAP

Researching Indigenous Partnerships: An Assessment of Corporate-Indigenous Relations

A new Canadian
Engagement Index Score



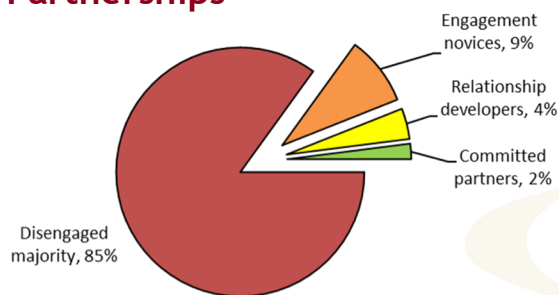
Corporate-Indigenous Partnerships

**Engagement Index
Score = 13/100**

85% Dis-engaged

TRC Awareness 28%

“Majority of companies lack the motivation, competencies and organizational readiness to effectively engage and partner”.



Awareness/knowledge levels are low:

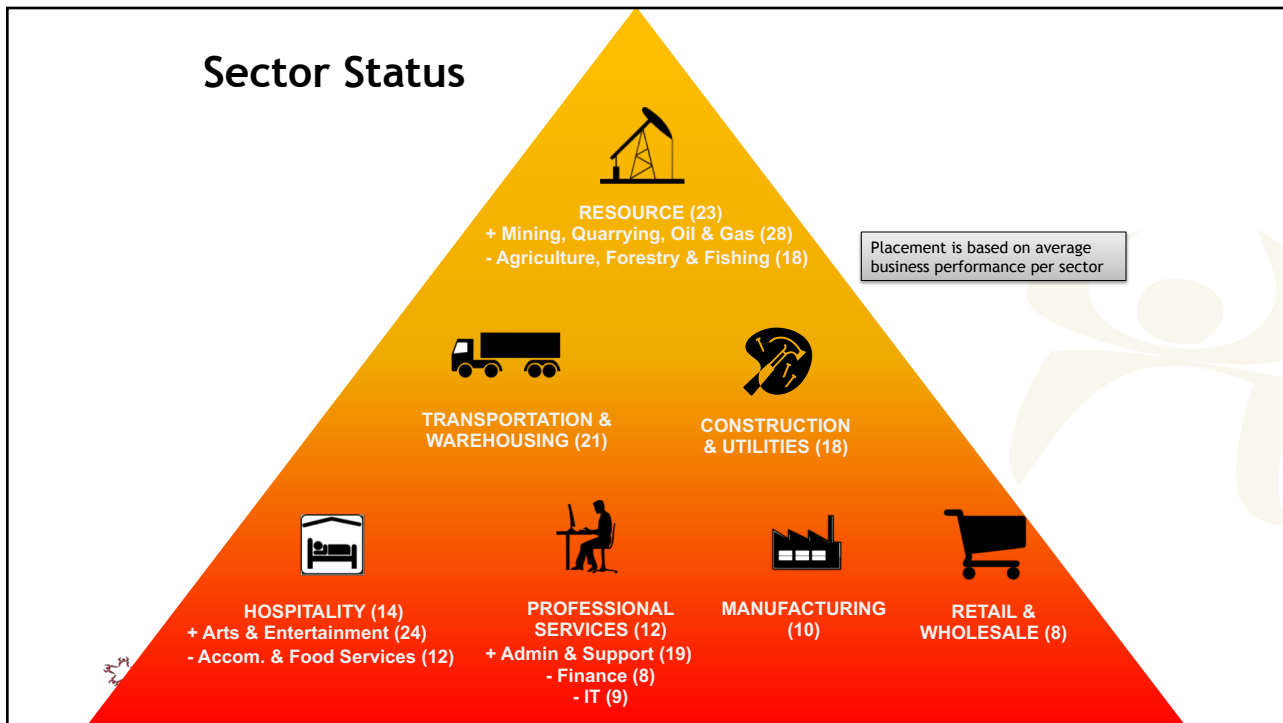
Low engagement readiness; passive, no priority

Some businesses are taking first strategic steps, need coaching, expert resources

Consultation is sporadic, project-driven (It's the exception, not the norm)

Few businesses are engaging and partnering with Indigenous groups

Three Gaps: Commitment, Capacity, Communication



Four Engagement Levels

Group 1: The Dis-engaged Majority (85%)

Group 2: Engagement Novices (9%)

Group 3: Relationship Developers (4%)

Group 4: Committed Partners (2%)

Group 4: Committed Partners (2%)

- >1000 employees, Resource Sector / Western Canada;
- Profound engagement and long term relationships;
- dedicated indigenous liaison depts.;
- Communicate often;
- Hiring indigenous people easiest among equity groups;
- Offer scaled opportunities to help communities grow.



Group 3: Relationship Developers (4%)

- Resource sector & EE sector;
- Broader capacity to act
- Formal strategies and informal partnerships
- Working with communities, prioritized hiring, community commitment
- Reputational growth
- Improved WP culture
- Social license



 Indigenous Works

Group 2: Engagement Novices (9%)

- Firms with high levels of readiness in construction, transportation, utilities, warehousing
- Tend to engage on project specific basis,
- Need coaching, expert direction,
- Business motivation rather than social or ethical



 Indigenous Works

Group 1: The Dis-engaged Majority (85%)

- 1/3 never *considered* engaging; Passive approach; limited perceived value; perception time-consuming/costly; allocate few resources

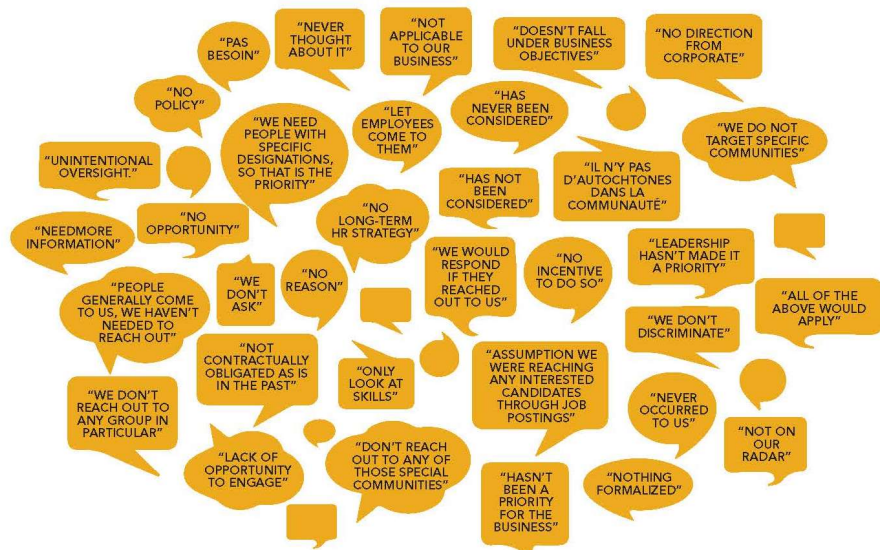
Nearly 70% said they needed at least one form of support to move forward:

1. Guidance from Indigenous groups (29%)
2. Dedicated, experienced resources (22%)
3. Mentorship from other businesses (19%)



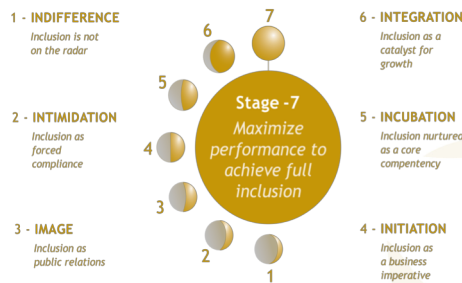
WHY BUSINESSES SAY THEY HAVE NEVER CONSIDERED ENGAGING OR REACHING OUT TO INDIGENOUS COMMUNITIES AND ORGANIZATIONS:

– Direct quotes from disengaged businesses



Workplace & Partnership Inclusion

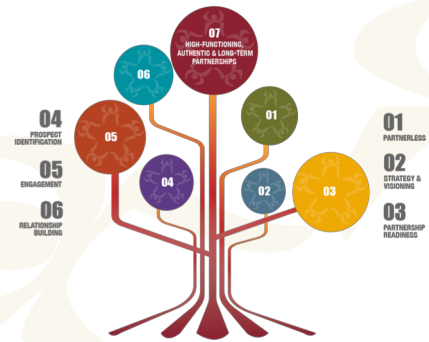
Inclusion Continuum: 7 Stages



Partnership Model: 7 Stages

INDIGENOUS 7 STAGE PARTNERSHIP GROWTH MODEL

Creating Partnership Intersections



Ontario Linkages Project Goals:

- **Increase the awareness** among the Advanced Manufacturing and the Information Technology Sectors about the opportunities, benefits, and ways to engage & employ Indigenous talent
- **Provide opportunities** for organizations & companies to connect, learn about one another, and collaborate – regional information sessions, presentations, articles, meetings
- **Develop an inventory** of programs, services and resources that can support Indigenous peoples education, training, and hiring into the IT & Advanced Manufacturing Sectors

Ontario Linkages Project Goals:

- **Research and report on the situational analysis of the sectors – opportunities, needs, challenges & promising practices**
- **Host a Workforce Connex in Spring 2019 for stakeholders to develop actionable steps to carry forward with their engagement after the project closes**



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Kick off with a roundtable April 2018

Anishinabek Nation Apteco Chiefs of Ontario Cisco Systems
 Conestoga College Federal Economic Development Southern Ontario
 Forward Vision Games FoxWise Technologies Highlight Hub
 Information Communication Technology Council
 Information Technology Association Canada MDA - A Maxar Company
 Ministry of Aboriginal Affairs Next Generation Manufacturing
 Niagara Peninsula Aboriginal Area Management Board
 Ontario Ministry of Advanced Education & Skills Development, Indigenous
 Education (MAESD)
 PLATO RBC Rogers Six Nations Polytechnic
 SNC - Lavalin Inc Springboard Services SSquared Media



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Roundtable Presentation – STEAM Academy



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Where have we been...Waterloo Information Session held by web

Our organizing & outreach partners included:



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Where have we been...Ottawa Information & Networking Session held December 6th 2018 held at Carleton University
Our partners and speakers included:



CARLETON UNIVERSITY
The Center for Initiatives in Education



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Where are we going...Toronto Information & Networking Session January 31st 2019 Sidewalk Labs Toronto
Our partners and speakers include:



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Workforce Connex – March 6th Mississauga register at indigenousworks.ca - events

Our planning partners include:



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How to be involved

- Inform us of labour market research to add to the situational analysis
- Attend future information & networking sessions in your region
- Mark your calendar to attend the Workforce Connex !!!
March 6th - Four Points by Sheraton, Mississauga



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The Indigenous Skills Employment & Training Strategy (ISETS)



Mathew Gallina, National Training Coordinator,
Congress of Aboriginal Peoples



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Developing Tomorrow's Workforce Today

Information and Communications Technology Council (ICTC):
Indigenous ICT Employment Trends

Nathan Snider

About Our Organization:

ICTC is....

- A large network of industry, educational institutions, and policy makers representing the digital economy in Canada.
- An independent and neutral policy advisory organization to businesses and governments across Canada.
- An authoritative source of technology, economic, and labour market research.
- A leader in capacity building programs and solutions for the digital economy.
- A creative and responsive team!



www.ictc-ctic.ca

The Digital Labour Market: Where Do We Fit Internationally?

Canada is expected to play an important role in the \$3.8 trillion global information and communications technology (ICT) economy.

Focusing on traditional areas of software services, as well as emerging areas such;

- Advanced manufacturing
- Intelligent retail
- Artificial intelligence
- Blockchain
- 5G.



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The Digital Labour Market: Our Current Climate

Despite the importance of technology adoption to business sector innovation and competitiveness, Canada's adoption rate remains low compared to our international counterparts.

This lack of skilled technology workers results in a direct lack of support to innovative fields. This missing ICT labour market can directly negatively impact rural and urban;

- Manufacturing
- Finance
- Healthcare

Despite this opportunity and need, Canada is experiencing a shortage of skilled ICT talent, largely in relation to demographic shifts and an insufficient volume of youth in the post-secondary supply pipeline.

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The Digital Labour Market: Our Indigenous Future

- The ability to engage our Indigenous peoples will be critical in addressing these shortages. However, the benefits of engaging Indigenous peoples in the ICT and STEM labour force extend far beyond labour shortages.
- ICT adoption for Indigenous communities has the potential to shape a generation of youth that respond to challenges and integrate into tomorrow's digital economy in an effective and sustainable manner.
- This ultimately becomes a net economic benefit for Indigenous communities and Canada as a whole.

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Indigenous students are constantly learning to walk in two different worlds - it is often said they walk with a moccasin on one foot, and a running shoe on the other; for this reason, it is critically important that we provide culturally responsive pedagogy that teaches them the skills needed to be successful in a technology-driven world.

*...Many First Nations rely on external businesses to service various aspects of the community...while the goal ... is to protect their inherent rights through self-governance and autonomy - to provide services **for the community from the community**. With digital competencies, students... contribute to the implementation of needed services in their communities...enhancing the level of self-governance and improving the well-being and quality of life of those in the community.*

- Jennifer O'Driscoll - Nbisiiing Secondary School, Technology Lead

Research: Digital Economy Talent Supply: Indigenous People's of Canada - 2017

- Currently more than 10k (1.2%) of the Indigenous population employed in ICT jobs in Canada
- Our Indigenous population had an ICT unemployment rate of 2.8% (overall ICT unemployment rate, 2.6%)
- Had an overall Indigenous unemployment rate of 12.3%
- Positive growth trend identified since 2008

Research: *Digital Economy Talent Supply: Indigenous People's of Canada - 2017*

- **31.4%** of all Indigenous ICT professionals in Canada are employed in the ICT sector.
- **47%** of Indigenous ICT professionals are First Nations, **47%** are Métis, **2%** are Inuit, **2%** are from another Indigenous background and **0.45%** are from multiple Indigenous creeds.
- Indigenous ICT professionals are younger than the non-Indigenous ICT workforce: **8.2%** of the Indigenous ICT workforce is between 15 to 24 years of age and **29.3%** is between **25** to **34** years of age.
- Women represent about **27%** of the Indigenous ICT workforce.
- About one-third have a university degree at the Bachelor level and **36.9%** possess a college or CEGEP diploma.

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Where We Currently Stand

- As the quest for talent intensifies, our success in sustaining the development of a competitive and innovative Indigenous population depends on how organizations, education and government leverage opportunities for Indigenous people, while encouraging community based, and our national digital economy.
- Additionally, fostering a strong relationship with Indigenous communities is a primary ingredient in to acknowledging past traumas and the marginalization that Indigenous peoples have experienced in the labour market and our society.
- Implementing policies that allow us to foster an Indigenous ICT talent pool in a collaborative and inclusive way with Indigenous communities themselves is a fundamental process in securing our collective social and economic prosperity.

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Suggestive Paths **Forward:** Opportunities To Explore

Industry Champions:

Industry, educators, and associations should work with Indigenous communities to highlight the work of Indigenous role models employed in ICT, especially to Indigenous youth. Media, government and industry coverage displaying success stories of Indigenous workers in ICT and STEM professions can help to foster increased awareness and enhanced understanding of the career opportunities in the digital economy.

Post-Secondary Involvement:

Educators at the post-secondary level should improve the access to mentorship and coaching programs, writing courses, and academic advising at post-secondary institutions, to support Indigenous students throughout their university and college programs and improve their educational outcomes.

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Suggestive Paths **Forward:** Opportunities To Explore

Support For Teachers & Admin

Government at all levels and industry should increase the amount of support available to teachers and school administration staff, in order to assist them in integrating ICT and STEM into curriculums that are culturally appropriate.

This should include...

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What Can Be Changed; For Education

- Ensuring funding provided for on-reserve students, is equal to non-Indigenous students.
- Equipping teachers with the resources, materials, and professional development opportunities to learn how to integrate ICT and STEM content into lesson plans in culturally relevant and appropriate ways for Indigenous youth.
- Educating teachers, without an Indigenous background, who will be teaching in Indigenous communities, Indigenous culture and the pedagogical methods that best suit Indigenous learners.

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The Information and Communications Technology Council: Indigenous Programming & Research

- ICTC, in partnership with the First Nations Technology Council (FNTC) we're completing a 2-phase research study on the engagement of Indigenous communities in BC with the technology sector.
 - Phase 1: An engagement study where FNTC hosted community consultation in 8 different regions of the province in order to understand the challenges and barriers that Indigenous communities face when attempting to access meaningful employment in tech.
- Nationally, technology employment vs. other employment is growing at a rate of 6:1. The BC tech sector is one of the country's fastest-growing, and with that growth comes the demand for talent. This demand can reach up to 45,000 by 2021, where currently available supply can fill 1/3rd of that. However while demand soars, only 1% of the Indigenous population in BC is currently working in tech occupations. Phase 1 engaged Indigenous communities in BC to understand some the key influencing factors leading to this outcome.

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The Information and Communications Technology Council: Indigenous Programming & Research

- Phase 2:
 - An in-depth multi-year research study seeking to understand the multiple factors related to Indigenous tech engagement in the province.
- This will assess the demand for tech talent and tech skills (both current and future) across regions in BC where Indigenous communities live; and will couple that with an in-depth understanding of Indigenous needs, capabilities, perceptions and understanding of digital technology across the 203 nations in the province.

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The Information and Communications Technology Council: Indigenous Programming

- **Adult Digital Literacy Programming:**
 - A digital workshop series providing week-long skills development training for Indigenous Friendship Centres (Urban Indigenous Community Centre).
- **Focus on IT (MyFIT):**
 - Our Indigenous FIT educational programming is designed to evaluate, collaborate and provide unique ICT based educational programming for communities facing social, financial or broadband connectivity issues.
- **Ministry of Education: New Brunswick, First Nations Department**
 - A digital educational platform designed to connect two Indigenous communities and their schools together to share Indigenous specific knowledge and literature. Promoting sister-classrooms and joint run programs.

The Information and Communications Technology Council: Indigenous Programming

- **University College of the North: Technology and Skills Development Grant**
 - This program is designed to provide Indigenous youth with an ongoing series of programs, workshops and webinars led by industry ICT leaders and experts. This is a dedicated space on campus that welcomes youth from all learning levels to become engaged with software, programming and equipment often made inaccessible by high costs or limited availability.
- **ICTC (FIT) Indigenous Advisory Committee:**
 - This is a monthly professional (education, private industry, higher-ed, cultural) sub-committee designed to help monitor, advise and collaborate on all Indigenous based ICTC programming.

For more information :



Trina Maher, Project Consultant
 Ontario Linkages Project – Indigenous Works

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