

LUMINARY ~ ADVANCING INDIGENOUS INNOVATION FOR ECONOMIC TRANSFORMATION, EMPLOYMENT AND WELLBEING

Five Year Strategy



LUMINARY

Advancing Indigenous Innovation for Economic
Transformation, Employment and Wellbeing

 Indigenous Works

January 09, 2024



EXECUTIVE SUMMARY

Luminary is the name of an initiative developed by Indigenous Works to advance a 5-year strategy for Indigenous innovation as a catalyst for economic transformation, employment, and wellbeing. The vision is to be the most impactful Indigenous-led network and program of its kind in the world, where academia, business schools and Indigenous business grow research and innovations for commercial and wellbeing success.

The strategy is responding to two issues which are constraining Indigenous prosperity. (i) A significant gap currently exists between business schools and post-secondary research institutions, business schools and the Indigenous business community, and there are systemic barriers to growing Indigenous-led research. (ii) Indigenous businesses and communities lack the means to mobilize new research knowledge and innovate new products, services and value creation which can grow and transform Indigenous economies. Research and innovation investments not only lead to stronger business and industry competitiveness, but they also enable new product and market expansions, and create jobs.

In 2020, the Luminary Charter partnership was implemented and the list of over 150 organizations is found in appendix two (pg. 40). The Luminary project charter affirmed the issues and secured their commitment to participate in co-creating a strategy to address barriers, build new systems and re-design the Indigenous research and innovation ecosystem. The Luminary Strategy was completed in 2021 over a 14-month timeframe with 14 strategy sessions and 2 national gatherings.

Luminary partners identified 8 impact themes that collectively make up the Indigenous research and innovation ecosystem. Impact themes include: (i) growing Indigenous research talent; (ii) Indigenous curriculum, knowledge, and student support; (iii) growing research collaborations; (iv) increasing innovation awareness, education and skills; (v) building Indigenous leadership and institutional capacity for research and innovation; (vi) creating knowledge transfer and mobilization strategies; (vii) identifying and supporting Indigenous business innovation needs, priorities, and clusters, and; (viii) economic transformation, employment and wellbeing: evaluation and measurement.

Luminary is an Indigenous-led strategy and solution bringing both an institutional and programmatic approach to solving and addressing many of the issues and opportunities evident in the research and innovation ecosystem. Luminary's mission is to “convene, coordinate, and communicate with its national network of partners,

academic, business schools, NGOs, Indigenous businesses, and mainstream businesses, providing a comprehensive platform of innovation services and programs”. Luminary will be a connector, convenor and facilitator. It will play an intermediary role and be a trusted knowledge keeper and innovation centre.

In 2022 Luminary/Indigenous Works was one of 35 organizations in Canada, and the only Indigenous organization, invited to submit a full application to the new ISED Strategic Science Fund, a new fund for non-university innovation initiatives. Our five year 24 million proposal would support the business schools, academic community, and Indigenous business community as they work together to implement the Luminary program and grow commercial innovation, Indigenous-led research collaborations and foster a new indigenous innovation eco-system. SSF funding would commence in 2024 for successfully funded applicants. Successful applicants will be notified sometime in 2023.

In 2022-2023, a new Luminary Academic Membership Program for business schools, universities and colleges was implemented - information about the academic membership program is available [here](#).

Luminary is an Indigenous-led initiative to grow the Indigenous innovation eco-system and increase investments in Indigenous research and business innovation that result in transformative economies with greater opportunities for Indigenous commercial growth, employment, and wellbeing.

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Harnessing Research and Innovation to grow healthy Indigenous economies, communities, jobs and wellbeing.



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INTRODUCTION

The Organization of Economic Cooperation and Development (OECD) has long taken the position that ‘innovative activity is the main driver of economic advancement and wellbeing’. Indigenous people want to pursue these important goals and to do so they will want to further enlist research and innovation as a catalyst to economic transformation, jobs, and wellbeing. In the wake of Covid there is a compelling drive to ‘build back better’. An investment in Indigenous business innovation now will spell dividends in the near and far future. Conversely, the ‘cost of doing nothing’ will push Indigenous people further behind, and they cannot afford more setbacks at this juncture.

Although there are many pockets of success, Indigenous peoples and communities in Canada remain in a fragile state with metrics showing little upward trends. In their recent report on Indigenous Economic Progress (2019), the National Indigenous Economic Development Board examined a comprehensive range of socio-economic indicators. They note that ... ‘there are some (very modest) positive trends and improvements in specific markets and communities across Canada. However, no substantive changes have been made in the main socio-economic gaps which characterize Indigenous circumstances today.’¹

Luminary is both a program and an institutional strategy co-created and co-developed with 142 Luminary Charter Partners who participated in 14 sharing circle strategy sessions, a national Luminary Gathering on June 23rd, and numerous written and oral contributions totalling more than 500 hours of collective input. They identified seven key roles that Luminary can play to support the partners, and advance and grow an Indigenous Innovation Ecosystem. The roles are described on the next page.

We wish to acknowledge the Luminary partners, our elders, and stakeholders for exploring, examining, and developing a new strategy and approach to grow Indigenous Innovation.

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¹ National Indigenous Economic Development Board, 2019 Indigenous Economic Progress Report, 2019.

LUMINARY PURPOSE & ROLES

The purpose of Luminary can be encapsulated in its logo below, which incorporates a stylized depiction of the northern lights. Colours in the Luminary palette accent the name of the initiative and its intent to bring ‘illumination’ to issues which are impeding Indigenous research and innovation as a catalyst for economic transformation, employment, and wellbeing.

Partners identified 7 key roles that Luminary can play as a bridge-builder and connector between and among Indigenous businesses & communities, post-secondary institutions and research agencies.



Connector & Advocate

Convenor & Facilitator

Capacity Builder

Research

Knowledge Keeper Center

Growing Indigenous
Research Talent

Measurement & Reporting

Vision

To be the most impactful network and program of its kind in the world, where academia and Indigenous business grow research and innovations for economic transformation, employment and wellbeing.

Mission

To convene and coordinate a network of academic, Indigenous businesses, Indigenous economic development corporations, NGOs and mainstream business partners supported by a comprehensive platform of innovation services and programs.

THE LANDSCAPE AND CURRENT STATE ANALYSIS

The socio-economic indicators used by the Indigenous Economic Development Board capture the life-state indicators which Indigenous people face daily. The effects of racism, exclusion, the breakdown of family and community values, overcrowded housing, loss of culture etc. also have a bearing on quality of life or 'wellbeing' indicators. At a time when Canada's Indigenous businesses and communities are struggling, one wonders whether they will have the resiliency to make the rapid adjustments needed to thrive in whatever the new economy looks like as 'normalcy' returns, post-Covid.

Indigenous organizations are embracing their role and responsibility to address Indigenous socio-economic inequities. One of the ways of doing so is to enlist research as a tool and driver for economic growth. As an example, in 2018 Inuit Tapiriit Kanatami (ITK) released its 'National Inuit Strategy on Research'. The Strategy outlines the coordinated actions required to improve the way Inuit Nunangat research is governed, resourced, conducted, and shared. It envisions research being utilized as a foundation for strong public policies, programs, and initiatives that support optimal outcomes for Inuit that in turn benefit all Canadians. It proposes 27 'actions' and 19 'objectives'. Highlights include:

- More Inuit governance leading to Inuit self-determination over research within Inuit Nunangat;
- Better ethical conduct on the part of researchers, through better means of holding them accountable for existing ethics guidelines as well as new Inuit-specific guidelines for research on humans, wildlife, and the environment;
- More research funding that is directed to Inuit research priorities;
- Inuit access, ownership and control over their data and information; and
- Capacity building for Inuit Nunangat research, including development of an Inuit Nunangat university, reliable broadband internet, and other measures.

Adding further to the formation of an emerging shift and increase in Indigenous research, the Canada Research Coordinating Committee (CRCC) was created in 2017. The CRCC brings together the Presidents of Canada's three federal research granting agencies, namely the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council (NSERC) and the Social Sciences and Humanities Research Council (SSHRC) with the National Research Council (NRC), the Canada Foundation for Innovation (CFI) and the Chief Science Advisor and the Deputy Ministers of Innovation, Science and Economic Development and of Health Canada. As one of its key priorities, the CRCC reaffirmed the federal

granting agencies' commitment to the *Calls to Action* of the TRC with the creation of a national dialogue with Indigenous communities to co-develop interdisciplinary Indigenous research and a new research training model that contributes to reconciliation.

In January 2020, the federal research granting agencies fulfilled the CRCC partners' priority and released their report called 'Setting New Directions to Support Indigenous Research and Research Training in Canada'. This report articulated a philosophy, direction, proposed mechanisms and intended outcomes to grow Indigenous-led research collaborations. The report sets some expectations about the scientific research community needing to work more closely with Indigenous communities and that effort, should be made to build the capacity of Indigenous research enterprises. How this will be facilitated and achieved through and by the research funding agencies is still in question but what was heard during the consultations is clear.

Among many requirements, Indigenous people expressed an urgent need for long-term research relationships built on trust, respect, and mutual interests. Dedicated funds are needed for community outreach and relationship-building to lay the groundwork before the research can start. This is seen as an important step towards improving research partnerships. Participants at the engagement events also pointed to the need for funding to support core administration costs that will enable Indigenous organizations to lead their own research. Through the consultations, the need was reinforced for effective tools and resources to facilitate access for Indigenous communities, collectives, and organizations to connect with researchers and students involved in Indigenous research, as well as to help identify potential researchers with whom they may wish to collaborate. Other outcomes and requirements cited in the consultations include:

- Researchers enabled to develop mutually respectful research relationships with Indigenous peoples;
- Environments created to promote capacity-building and development of research communication networks with First Nations, Métis, and Inuit Communities; and
- Research partnerships created between Indigenous communities, the granting agencies, and the broader research community.

Regarding the 'Research Talent Agenda', outcomes needed include:

- Successful education and career pathways to enable Indigenous student success;

- Increased awareness, understanding and leadership of Indigenous researchers, students, and community in research; and
- Indigenous students having greater access to the work of Indigenous scientists and scholars.

INTRODUCING LUMINARY

Luminary is the name of Indigenous Works’ 5-year initiative to design and implement an Indigenous innovation strategy and plan leading to economic transformation, employment, and wellbeing. This strategy builds on the work of organizations like ITK and the research funding agencies that share a common vision to increase Indigenous-led research and to change the ways that this research is grown.

Luminary takes this a step further by also looking at the ways that Indigenous research knowledge can be mobilized and enlisted into Indigenous business and community planning. Under the right conditions Indigenous businesses and community organizations will develop increasing opportunities to innovate new products and services and to otherwise create value for Communities.

The Luminary initiative is in state of play. Its origins lie in a cross-country consultation which culminated in a major event ‘Inclusion Works ’19, Transforming the Indigenous Economy: Talent, Innovation and Partnerships’ held in September 2019 on the traditional unceded territory of the Wolastoqiyik, (aka Maliseet) and people in Atlantic Canada. The event was organized by Indigenous Works and its partners and attended by over 250 guests.



Luminary’s most significant impact and contribution is to disrupt and design a new Indigenous research and innovation eco-system creating new conditions, skills and strategies that will give rise to substantial increases in Indigenous-led research collaborations, knowledge mobilization and business innovation. Luminary partners have co-created and co-developed the Luminary Strategy and a five-year business plan that will ensure Indigenous businesses embrace a culture of innovation and the research community, research agencies and Indigenous businesses can grow new research collaborations.

Following this event and other information exchanges, Luminary established a project charter which affirmed the need for a five-year strategy and business plan, 2022-2026, focused on identifying programs and services which Luminary could deliver in the future as part of an institutional and programmatic strategy to address the many issues which are currently inhibiting the take-off of Indigenous-led research and the use of research knowledge for commercial innovation. In addition to research and interviews, Indigenous Works held the Luminary Dialogue with the Luminary partners who had signed onto the Luminary Charter and affirmed their commitment to participate in dialogue sessions in spring 2021 to co-create the Luminary strategy and business plan to increase Indigenous research and innovation. ² The list of over 150 Luminary partners can be found in Appendix II; it includes an Elders Council, universities, colleges, polytechnics, an Indigenous student MA & PhD research committee, NGOs, Foundations, Indigenous Development Corporations, Indigenous businesses, et al.

Our goal with the strategy is to close the research gap between Indigenous business and community socio-economic and wellbeing priorities and post-secondary research institutions. In addition, Luminary attracted funding to do two other projects which it started up in early 2021: (i) Advancing an Innovation Strategy for the Indigenous Agriculture and Agri-Food Sector and; (ii) Growing and Advancing Indigenous Student Research Talent.

The Luminary Dialogue

Participants in the 14 sessions of the Luminary Dialogue, held between March and June 2021, self-selected the break-out themes, each of which peek at different characteristics of the Indigenous research and innovation ecosystem. The themes were:

1. Growing Indigenous Research Talent;
2. Indigenous Curriculum, Knowledge and Student Support;
3. Growing Research Collaborations;
4. Increasing Innovation Awareness, Education and Skills;
5. Building Indigenous Leadership and Institutional Capacity for Research and Innovation;
6. Creating Knowledge Transfer and Mobilization Strategies;
7. Identifying and Supporting Indigenous Business Innovation Needs, Priorities and Clusters; and

8. Economic Transformation, Employment and Wellbeing: Evaluation and Measurement.

Six main questions underlay each of the eight sessions:

1. What conditions are needed to enable Indigenous people, businesses, and communities to identify and prioritize the research needed to address opportunities and problems which are important to them?
2. How can Indigenous people enlist the post-secondary research community and build research collaborations?
3. How can that research knowledge be used to the betterment of communities so that new value-creation, products, and services can be developed?
4. What are the building blocks of the Indigenous research and innovation ecosystem needed to create incremental value and wellbeing for communities?
5. What changes and enhancements are needed with the current research and innovation ecosystem?
6. How do we cultivate and animate the building blocks so that stronger research and innovation performance can be realized by Indigenous communities and businesses in the future?

Wellbeing as a Goal

Luminary discussions cited the growing narrative about the limitations with the use of Gross Domestic Product as the way to measure social progress. Alternative approaches have included Bhutan's Gross National Happiness Index (GNH), the Commission on the Measurement of Economic Performance and Social Progress, the Organization for Economic Co-operation and Development's (OECD) Better Life Index, and the United Nations' World Happiness Report. A recent example attempting to implement programs directed towards wellbeing is New Zealand's 2019 Wellbeing Budget, including connections to Indigenous Māori wellbeing outcomes.

In 2021, the BC Assembly of First Nations released a discussion paper 'Centering First Nations Concepts of Wellbeing: Toward a GDP-Alternative Index in British Columbia'. This discussion paper explores the ways in which BC measures of economic value are inadequate and fail to reflect the values of First Nations governments and individuals to the overall wellbeing of the province. The paper states there is an opportunity for BC to develop its own wellbeing index that considers Indigenous knowledge of environmental, health, education, community, and cultural outcomes to improve the livelihoods of all British Columbians. This index could be further leveraged to develop one for Canada as a whole.

Luminary partners also observed that there is a growing shift from innovation for wealth creation to innovation for wellbeing, and this observation is supported by academicians such as Martin 2015.³ What are Indigenous views of wellbeing? If innovation leads to greater wellbeing, how will we measure it? Research has shown that it is possible to collect meaningful and reliable data on other indicators of wellbeing in addition to the commonly used economic output inherent in GDP. Recently, the National Aboriginal Capital Corporation Association has started to gather its own subjective and qualitative data from Indigenous companies and Aboriginal Financial Institutions. This qualitative data is providing new insights on social and economic returns and a new picture of wellbeing among Indigenous businesses.

Innovation

The innovation program landscape in Canada is complex with as many as 1000 different programs at federal, provincial, and other levels of government. The conversation about the definition of innovation and how it applies in the context of Indigenous communities is one that ‘Luminaries’ tackled in the Dialogue sessions. Indigenous people have a long history as innovators. However, in the way that innovation is currently measured in the business context, both Indigenous and non-Indigenous businesses in Canada fall behind in ‘commercial’ innovation. Every year, the Global Innovation Index (GII) created by Cornell University, INSEAD and the World Intellectual Property Organization ranks the innovation performance of nearly 130 economies around the world. In the 2019 GI study, Canada ranked 17 out of 100 on the Global Innovation Index. Switzerland, Sweden, and USA ranked 1 to 3, respectively. But what would Canada’s placement be if we were just looking at Indigenous businesses? Probably significantly lower, more like the rankings of some emerging countries such as The Republic of Malawi, which scored 118.⁴

Conditions discourage commercial innovation among the Indigenous business community, such as:

- Poor or under-developed science and innovation culture;
- Colleges and universities have in the past by-passed Indigenous people and communities in efforts to identify their own priorities and conduct their own ‘Indigenous research’;
- Indigenous people and businesses have had few opportunities to understand and explore the value of research to innovate their own businesses and economies;

³ Ben R. Martin, Twenty Challenges for Innovation Studies, University of Sussex, Science Policy Research Unit Working Paper Series 2015-30 (November), (ISSN 2057-6668)

⁴ Cornell University, INSEAD, and WIPO (Soumitra Dutta, Bruno Lanvin, and Sacha Wunsch-Vincent Editors), [Global Innovation Index 2019: Creating Healthy Lives—The Future of Medical Innovation](#), Ithaca, Fontainebleau, and Geneva. 2019.

- There are critical engagement gaps between the research and Indigenous communities. The collaborations and cooperation needed with the research community are not yet in place to fully cultivate community-led research initiatives;
- There are no systems in place to assist Indigenous businesses to identify the researchers that have the expertise needed for their research issues; and
- Indigenous businesses engaged in key economic sectors lack the organization and administrative hubs to effectively launch and network collective research strategies. They lack the infrastructure and systems to effectively mount open-innovation systems.

‘On research and innovation this commentary...

‘We (Inuit) have so many opportunities coming down the pipeline and we are not ready. Luminary could help us, and Luminary could be the glue that pulls different Indigenous organizations together.’ -- Mary Simon.

From the Luminary Dialogue in spring 2021. (Mary Simon was installed as Canada’s 30th Governor General on July 26, 2021)

Indigenous ability to improve their competitiveness and productivity depends on them acquiring the product/market information and the organizational and management skills needed to drive innovation strategies and practices as part of their normal business operations. But skills and strategies are not sufficient. The conditions need to be present for Indigenous innovation to properly take hold and that means changes are needed to the Indigenous research and innovation ecosystem. Take note of the upside, however. Indigenous people have the edge with an outlook and abilities to innovate and potentially dominate certain product and market niches in Canada’s economy. There is also a great potential for exportable products and services to be innovated and Indigenous global economies to be developed. Indigenous branding offers opportunities for scaling and, in some cases, premium marketing.

Economic Transformation, Jobs and Wellbeing

Luminary has the potential to be transformative because it will implement programs and services which address Indigenous businesses and communities’ need to reset Indigenous economies on a stronger foundation of research and innovation. The current engagement gaps which exist between the Indigenous businesses and the research communities are hindering Indigenous advancements and innovations, and so these barriers need to be addressed.

A growing narrative is being led by Indigenous economic philosophers such as Carol Anne Hilton who has coined the term ‘indigenomics’ to bring focus to the potential growth of the Indigenous economy from the current \$26 billion to \$100 billion in just a few years.⁵ It is a compelling vision and begs the question as to how this growth will be realized. Value creation is the key, and innovation is the way to get there. The path for Indigenous people to build their economies is to utilize their main asset, which is themselves.⁶ A people gifted with an identity which has exuded innovation for centuries offers promising new approaches to research and development.

The Indigenous Research and Innovation Ecosystem

Given the opportunity, and on their own terms, Indigenous people will work with the post-secondary research community and other players within the ecosystem to use research as a catalyst for economic development, job creation, and wellbeing. But the conditions and building blocks need to be right, and what better way to make it so than by ensuring that Indigenous people are the leading architects and builders of this new ecosystem. By disrupting the systems and hegemony which have taken shape under colonialism and gradually supplanting an old set of rules with more conducive conditions for Indigenous-led research collaborations and innovation, the foundations are being set for a more positive future for Indigenous people, one defined for themselves for tomorrow, and the generations to follow.

‘We need to address important issues, and we need to address them head on, and if sometimes that gets a little uncomfortable, so be it, disruption can lead to new models and approaches for a new Indigenous innovation ecosystem.’ - Dr. Michael Hawes, CEO Fulbright Canada

As part of this architecture, Luminary advances a cyclical model of ‘The Indigenous Research and Innovation Ecosystem’, (Figure 1 on page 13). The first cycle, called Research Collaborations, involves Indigenous communities and businesses identifying research needs and then developing and implementing collaborative research with Indigenous or non-Indigenous partners. The knowledge gained from these collaborations then enters the second cycle, called innovation. The three general outcomes from each innovation are Indigenous economic transformation, employment, and wellbeing. There are over a dozen discrete steps in each cycle. We do of course recognize that research and innovation rarely follow a rigid step-

⁵ <http://indigenomicsinstitute.com>

⁶ John L. McKnight and John P. Kretzmann, Building Communities from the Inside Out: A Path Toward Finding and Mobilizing a Community’s Assets, Chicago, IL: ACTA Publications.

by-step process in practice; nevertheless, these steps are commonly identified in research and innovation process models in a similar order. As Luminary’s work continues it will be increasingly important to build out this model further for use in curriculum planning and other kinds of detailed work pertaining to Luminary’s programs and services.

Indigenous Values, Worldviews and Knowledge Systems: Key Principles and Guidelines for the Luminary Initiative

There are a variety of worldviews and knowledge systems among Indigenous Peoples. While there are differences, there are common principles that provide guidelines for Luminary. One example is ‘Etauptmumk’ (Two-Eyed Seeing) - a Mi’kmaw concept ‘respecting and valuing both traditional and western ways of knowing,’ according to Elder Albert Marshall. Consistent with this, Luminary participants have identified specific ways that the research and innovation ecosystem can be enhanced to the benefit of Indigenous businesses and communities, as well as western post-secondary research institutions. Other frameworks are also valuable to enable ways of aligning Indigenous and western thought, knowledge, and approaches. This includes the Medicine Wheel, Two-Row Wampum, and Inuit Qaujimagatuqangit Principles.

The Diversity of Indigenous Values and Knowledge Systems ---

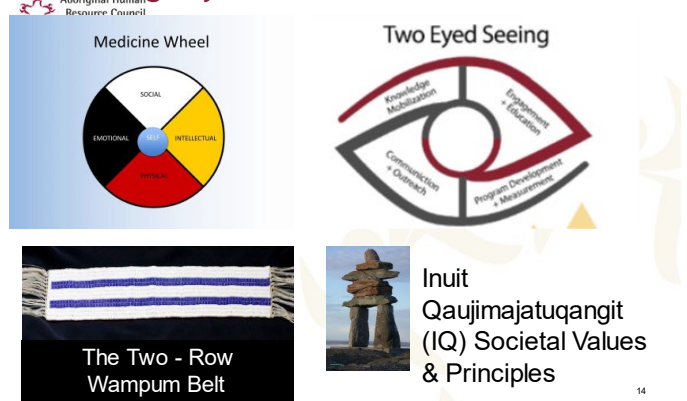
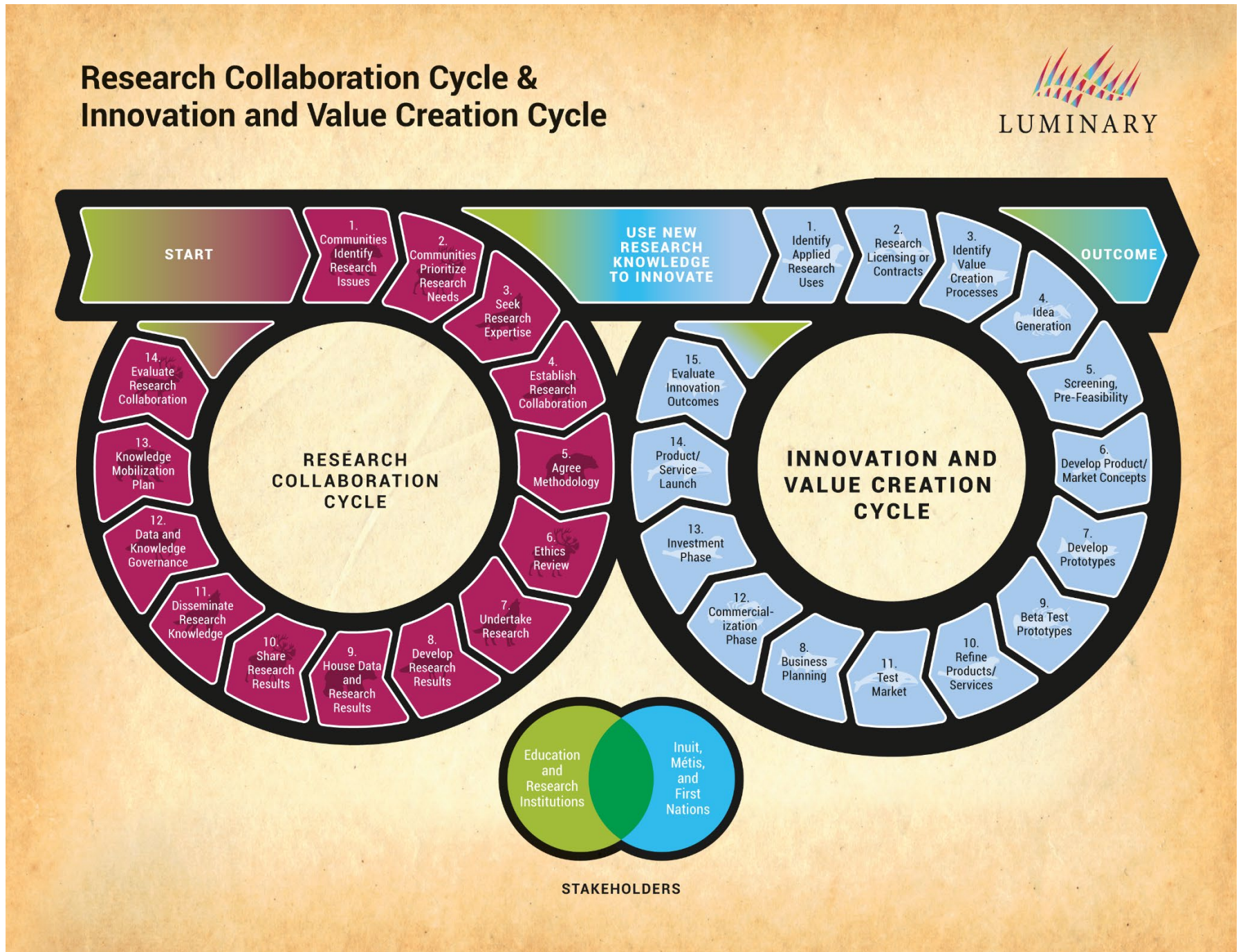


FIGURE 1 - THE INDIGENOUS RESEARCH AND INNOVATION ECOSYSTEM



PROGRAM AND SERVICE OFFERINGS FOR THE EIGHT THEMES

The 14 sharing circle sessions in April and May 2021 and the national Luminary Gathering held June 23rd, 2021, provided a way to talk about the enhancements needed to the Indigenous research and innovation ecosystem. Input from Luminary participants is summarized below for each of the eight themes mentioned above. Presented for each theme are the key issues, opportunities, commentaries, and a brief description of the Luminary program and service offer. This program and service platform is intended to address many of the existing gaps and shortfalls in the ecosystem. Furthermore, the roles that Luminary will take on will play to the opportunities that can be created as stronger engagements between Indigenous and post-secondary research communities are built. The intermediate and long-term outcomes of Luminary are diagrammed in the Luminary Logic Model in Appendix 1.



1. GROWING INDIGENOUS RESEARCH TALENT

Issues, Opportunities, and Commentary

Recent estimates indicate there are about 500 Indigenous PhD's in total in Canada. ⁷

There is no data about the numbers of Indigenous Masters' students enrolled in post-secondary institutions. There is a general lack of Indigenous research talent 'bench strength' within post-secondary institutions. There are many research disciplines which lack any Indigenous research talent whatsoever. In general, we know very little about the career paths of Indigenous researchers and what motivates them to complete their education and choose research as a preferred career. There are no formal national or provincial networks to enable Indigenous student researchers to connect student cohorts, share their goals and experiences and to participate in supplementary professional development training.

- Programs like New Brunswick's 'Future Wabanaki' offer a model for students to gain experience and professional development in the areas of study they are pursuing through a partnership of post-secondary institutions, government, and private sector.
- Looking ahead over the next decade, there is an opportunity to build career paths, institutional supports, and attraction strategies to considerably grow the number and breadth of Indigenous research talent.



Luminary Program & Service Offer

- Establish a national network of Indigenous student researchers.
 - Improve the database of Indigenous student researchers.
 - Provide an annual event to convene student researchers to share ideas and grow their professional development.
- Continue the work initiated by Luminary in 2021 to learn more about the career pathways of Indigenous student researchers.
- Work with our partners to design a strategy to grow the career planning resources for Indigenous student researchers.
 - Improve knowledge of student researchers' career paths.
 - Develop career planning materials and activities for Indigenous student researchers such as experiential training and work integrated learning.

⁷ Indigenous Economic Development Board 2021

2. INDIGENOUS CURRICULA, KNOWLEDGE AND STUDENT SUPPORT

Issues, Opportunities and Commentary

Canada needs a strategy to grow Indigenous research talent in alignment with Indigenous economic and wellbeing priorities. It would do well to examine the approach taken by the Māori. Aotearoa New Zealand's strategy MAI Te Kupenga has helped stimulate an exponential growth in Māori and Indigenous enrolments into doctoral programs. The country is noted for its efforts to bring education opportunities into the communities rather than requiring students to uproot from their communities to attend a post-secondary research institution to complete an advanced degree. The past year with Covid has taught us all that more can be done on-line allowing more creative approaches to distance learning.

Indigenous students will be attracted to post-secondary institutions that can offer curricula which include Indigenous thought and contributions to knowledge. There are opportunities to decolonize and indigenize institutions to improve the experience for Indigenous people who are choosing to pursue a research degree. We need to create

opportunities for Indigenous people to pursue a research degree in a discipline or area which is of importance and priority for their own research interests and those of their community. What will that look like and how will it be achieved? What supports are needed as Indigenous candidates seek to pursue research degrees and careers in areas and disciplines which are needed for community-growth and diversification?



Luminary Program & Service Offer

- Luminary can play a strategic role as developer and resource to indigenize post-secondary learning curricula
 - Luminary will initially assist with the indigenization of business schools' learning curricula focusing on such areas as innovation as a core strength of Indigenous businesses and entrepreneurs.
 - Establish a Luminary Pedagogy Resource Centre including inventories of course syllabus, subject matter experts, case study examples, and other tools and materials which contribute to the Indigenizing of post-secondary learning programs including programs which teach research.

3. GROWING RESEARCH COLLABORATIONS

Issues, Opportunities and Commentary

Many Indigenous communities currently lack the capacity or processes to identify their community-based research priorities. Systems and research infrastructure needed include the development of Indigenous ‘value-creation models’ which enable Indigenous communities to prioritize their research: recognizing wellbeing in tandem with economic priorities. Part and parcel with this are the need to decolonize and indigenize research approaches so that they align more closely with Indigenous needs.

New models for ‘community-based value creation’ are at the heart of what is needed to identify Indigenous-led research collaborations. Also, Indigenous communities and post-secondary research collaborations require specific skills and institutional supports to succeed in these research collaborations.

- The sense in the Luminary conversations is that there is some work needed to establish new relationships with communities and to develop the trust needed to enter research collaborations which are led by community interests. Research institutions need to work at building the relationships and many are not sure how.
- It will be important to consider what training and supports student Indigenous researchers are getting as to how they work with communities to develop research partnerships. Are students being adequately trained and prepared to build research partnerships which reflect community needs?



Luminary Program & Service Offer

- Develop collaboration networks and offer ‘match-making’ services to connect Indigenous communities and their research needs with post-secondary research institutions.
- Conduct research into ways of improving and growing research collaborations between Indigenous communities and businesses and research institutions.

4. BUILDING INDIGENOUS LEADERSHIP AND INSTITUTIONAL CAPACITY FOR RESEARCH

Issues, Opportunities, and Commentary

Post-secondary research institutions are deeply rooted in western thinking, western values, and western constructs. These worldviews fundamentally shape what is important, what kind of research should be undertaken, and how it is done.

Indigenous people want to grow their presence in existing post-secondary institutions and shape the research ecosystem to their own ends. They want to decolonize and indigenize existing post-secondary institutions and expand Indigenous research capacity, programs, and funding. They also want to grow from the ground up, new research systems, designs, and practices which are not *adapted* from western institutions but are entirely ‘Indigenous-based’.

Indigenous people also want to grow their own research institutions and ecosystems. They want to define the areas of research where Indigenous people can achieve a strong presence and they want more equitable access to research funding, preferably from a dedicated Indigenous governed research agency.

- The Luminary initiative will continue to gather and inventory information resources which build Indigenous research capacity and assist post-secondary institutions to indigenize their institutions. An example is the British Columbia Institute of Technology’s BCIT Open-Sourced indigenization guides at <https://www.bcit.ca/indigenous-initiatives/resources/indigenous-guides/>



Luminary Program & Service Offer

- Develop policy and white papers to ‘Grow the Community of Practice’ for Indigenous-led research methodologies
- Develop Engagement and Collaboration Templates, Education and Training for both Indigenous communities /businesses and for post-secondary research institutions.
- Develop policy papers and lobby for new Indigenous capacity and research funding supports.
- Work with Indigenous post-secondary institutions to expand their capacity to grow their research and innovation departments.
- Provide services to Indigenous organizations to convene and advance Indigenous research projects and clusters and assist them to develop research funding proposals.

5. CREATING KNOWLEDGE TRANSFER & MOBILIZATION STRATEGIES

Issues, Opportunities, and Commentary

More Indigenous research must be undertaken, and the knowledge generated needs to be collected, stored, and catalogued. As this body of Indigenous research and knowledge grows, there will be an increasing need to develop strategies and systems for research and data governance, stewardship, and management. The research and knowledge are valuable. How can it be protected? Moreover, the current laws and rules governing intellectual property may fall short in context of Indigenous traditional knowledge. Indigenous people and institutions need to better understand how to protect this important knowledge base. As the Indigenous knowledge base grows, its potential uses need to be explored. Protocols are needed to establish the conditions that are needed to share and disseminate research information and decide under what conditions can this knowledge be used including its use in commercial applications. How might this research and knowledge be valued? Communities and nations could have a highly valued asset when there is clarity about the end-use of this knowledge and its potential significance as a driver of Indigenous economies, industries, cultures, and wellbeing.

There are also issues that need to be researched regarding how Indigenous traditional knowledge can be used in relation to the knowledge generated by post-secondary research institutions. For example, currently there is a lack of clarity with the rules used to reference traditional knowledge in academic journals. The systems and procedures used to mobilize scientific knowledge do not apply in the same way to Indigenous traditional knowledge.



Luminary Program & Service Offer

- Work with communities on the feasibility, design, and administration of knowledge research hubs which store, catalogue, and provide access to Indigenous-led research.
- Lead the development of policy papers and advocacy efforts on a wide range of issues pertaining to the growth of Indigenous research knowledge and strategies for their mobilization. Topics include:
 - Protection of intellectual rights and property.
 - Criteria for knowledge authentication.
 - Systems for cataloguing, storing, and sharing Indigenous knowledge.
 - Conditions and systems for mobilizing Indigenous knowledge.
 - Research on Indigenous knowledge and data governance.
 - Indigenous knowledge documentation and use in scholarly literature.
 - Commercial use of Indigenous knowledge.
 - Systems for knowledge translation.

6. INCREASING INNOVATION AWARENESS, EDUCATION, AND SKILLS

Issues, Opportunities, and Commentary

The strategy to increase Indigenous opportunities for commercial innovation is predicated on growing more Indigenous-led research, providing better access to that research, and creating the right ecosystem and conditions for research and innovation activities and projects. The conditions needed for Indigenous businesses and development corporations to individually increase Indigenous innovation are multi-faceted.

- Accessibility to Indigenous research is key. Video transmission of research can be a way to make it more accessible.
- ‘Translating’ technical research into language and formats which make sense for communities and business is sorely needed.
- A culture of innovation and stronger innovation skills are needed.
- Systems and infrastructure are needed to ensure Indigenous governance, stewardship, protection, and accessibility to Indigenous-led research knowledge. An Innovation Resource Centre, perhaps struck along sectoral lines, is one approach to pursue.
- New sources of investment and capital are needed to grow Indigenous innovation products, services, and other forms of value creation.
- Partnerships with non-Indigenous businesses offer a way to open new product and market opportunities, and innovation can play a role to encourage product/market adaptations.
- Better data is needed about Indigenous businesses, their investments and return on investment in innovation episodes.
- Indigenous-specific skills, learning, and proofs of concept are needed to equip Indigenous businesses with the ability to successfully undertake innovation projects.



Luminary Program & Service Offer

- Provide pathfinding services to Indigenous organizations to help them navigate and access innovation assistance and funding.
- Develop an Indigenous innovation training curricula.
- Create a Luminary Innovation Resource Center which documents examples of Indigenous commercial innovation.
- Provide business matching services to encourage and leverage innovation scaling among clusters of Indigenous businesses/ organizations.

7. IDENTIFYING & SUPPORTING INDIGENOUS BUSINESS INNOVATION NEEDS, PRIORITIES, & CLUSTERS

Issues, Opportunities, and Commentary

One by one, Indigenous businesses will adopt a culture of innovation and acquire the innovation skills needed to create jobs, business, and market expansion. A further challenge and goal are to scale up innovation activity by leveraging and building new networks and hubs. The concept of innovation hubs has worked well for non-Indigenous business participants in some sectors.

- To meet socio-economic, cultural and wellbeing goals, Indigenous communities are turning to entrepreneurship and co-operative business models that reflect their needs and worldviews. Northern Nations is an example of a new organization which wants to ‘engage and empower Indigenous communities through an integrated Cooperative business model’.⁸
- Tech-Access Canada is a national, not-for-profit organization established to expand the reach of its 60 NSERC-funded Technology Access Centres (TACs) to make their R&D support services more accessible across Canada.⁹ These organizations could play a lead role engaging with the Indigenous business community, but a stronger engagement plan is needed to coordinate this outreach.
- Similarly, the National Research Council’s offers its Industrial Research Assistance Program (IRAP) and its network of experts to help Indigenous businesses to grow their own research and innovation plans. Luminary will want to work with IRAP and other organizations to increase their assistance to Indigenous businesses and their innovation needs.



Luminary Program & Service Offer

- Conduct research about Indigenous Economic Development Corporations and develop a strategy with them to anchor larger scale innovation initiatives.
- Develop tools and templates for national, regional and community Indigenous businesses and organizations to identify opportunities and priorities for research and innovation.

⁸ <https://northernations.ca/>

⁹ <https://tech-access.ca/>

8. ECONOMIC TRANSFORMATION, EMPLOYMENT, & WELLBEING: EVALUATION AND MEASUREMENT

Issues, Opportunities and Commentary

The evolution and identification of Indigenous entrepreneurship is an emerging story which thus far has had many successes. The evolution of commercial innovation in the Indigenous business and economic context is still in a nascent state. What could be achieved by way of jobs, business development, and increased wellbeing if commercial innovation were truly embraced and nurtured by the Indigenous business community?

What could be the return on investment (ROI) of an Indigenous innovation strategy and what could be the transformative impact? How could these be measured?

- Partners discussed the work of the OECD and the development of standards to measure innovation such as the Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation.
- The current measurements of innovation are from a very narrow Eurocentric perspective and do not consider how Indigenous values and outlooks affect the way that innovation is understood and carried out.
- Statistics Canada has collected a lot of data and so there may already be data that can be mined to inform Indigenous innovation performance and issues.



Luminary Program & Service Offer

Luminary will develop a more comprehensive framework to measure and assess the impacts of Indigenous research and innovation

- Design with Stats Canada a Framework to improve the measurement, tracking, and impact assessment of investments in Indigenous research and innovation as a catalyst to Indigenous socio-economic growth and increases in wellbeing.
- Work with Indigenous organizations on policy actions which incorporate Indigenous wellbeing into economic development.
- Conduct research on Indigenous performance in innovation creating a unique Innovation Index to understand the comparative performance of Indigenous nations both within Canada and globally.
- Luminary will continue its work and examine innovation opportunities in other sectors of the economy where there is Indigenous engagement and interest. This year, Luminary's sectoral focus is on agriculture and agri-food.

LUMINARY STRATEGY GOALS

The above analysis is summarized in eight strategies associated with each of the eight themes. The following two pages summarize Luminary’s program and service offers.



LUMINARY – SUMMARY OF PROPOSED PROGRAM AND SERVICE OFFERS

Stream 1 - Grow Indigenous master's & PhD Research Talent and Create a Strong Student Network and Supports

Stream 1 - Grow Indigenous Research Talent and Create a Strong Student Network and Supports

- Establish a national network to unite, connect and empower Indigenous student researchers.
- Expand Luminary's Indigenous researchers career study started in 2020.
- Develop career planning resources for Indigenous student researchers.
- Deliver professional development opportunities for student researchers, e.g., national event.

Stream 2 - Play a strategic role to indigenize post-secondary institutions' learning curricula.

Stream 2- Play a strategic role as developer and resource to Indigenize post-secondary learning curricula

- Luminary will initially assist with the indigenization of business schools learning curricula focusing on such areas as innovation as a core strength of Indigenous businesses and entrepreneurs.
- Establish a Luminary Pedagogy Resource Centre including inventories of course syllabus, subject matter experts, case study examples and other tools and materials which contribute to the Indigenizing of post-secondary learning programs including programs which teach research.

Stream 3 - Increase Indigenous-led Research Collaborations

Stream 3 - Increase Indigenous-led Research Collaborations

- Develop collaboration networks and offer match making services to connect Indigenous communities and their research needs with post-secondary research institutions.
- Conduct research into ways of improving and growing research collaborations between Indigenous communities/ businesses and research institutions.

Stream 4 - Build Indigenous Leadership & Institutional Capacity for Research and Innovation

Stream 4 - Build Indigenous Leadership & Institutional Capacity for Research and Innovation

- Develop policy and white papers to 'Grow the Community of Practice' for Indigenous-led research methodologies.
- Develop engagement and collaboration templates, education and training for both Indigenous communities /businesses and for post-secondary research institutions.
- Develop policy papers and lobby for new Indigenous capacity and research funding supports.
- Work with Indigenous post-secondary institutions to expand their capacity to grow their research and innovation departments.
- Provide services to Indigenous organizations to convene and advance Indigenous research projects and clusters and assist them to develop research funding proposals.

Stream 5 - Develop and Implement Knowledge Transfer and Mobilization Strategies

Stream 5- Develop and Implement Knowledge Transfer and Mobilization Strategies

- Work with communities on the feasibility, design, and administration of knowledge research hubs which store, catalogue, facilitate, and provide access to Indigenous-led research.
- Lead the development of policy papers and advocacy efforts on a wide range of issues pertaining to the growth of Indigenous research knowledge and strategies for the mobilization of research knowledge. Policy topics include knowledge governance, data sovereignty, intellectual property rights and others.

Stream 6 - Increase Indigenous Innovation, Skills, & Know-how

Stream 6 - Increase Indigenous Innovation Skills, & Know-how

- Provide pathfinding services to Indigenous organizations to help them navigate and access innovation assistance and funding.
- Develop an Indigenous innovation training curricula.
- Create a Luminary Innovation Resource Center which documents examples of Indigenous commercial innovation and provide business matching services to encourage and leverage innovation scaling among clusters of Indigenous businesses/ organizations.

Stream 7- Identify & support Indigenous research and innovation priorities

Stream 7 - Identify & Support Indigenous research and innovation priorities

- Conduct research about Indigenous Economic Development Corporations and develop a strategy with them to anchor larger scale innovation initiatives.
- Develop tools and templates for national, regional and community Indigenous businesses and organizations to identify opportunities and priorities for research and innovation.

Stream 8 - Develop a more comprehensive Framework to Measure and Assess the impacts of Indigenous research and innovation

Stream 8 - Develop a more comprehensive Framework to Measure and Assess the impacts of Indigenous research and innovation

- Design with Stats Canada a Framework to improve the measurement, tracking, and impact assessment of investments in Indigenous research and innovation as a catalyst to Indigenous socio-economic growth and increases in wellbeing.
- Work with Indigenous organizations on policy actions which incorporate Indigenous wellbeing into economic development.
- Continue Luminary's sectoral focus, e.g., agriculture and agri-food.

ORGANIZATIONAL FRAMEWORK AND HUMAN RESOURCE PLAN

An organizational and human resource plan is proposed to support the development, management, and phased delivery of Luminary’s programs and services.

Luminary will be open to partnerships with institutions that may be prepared to host a portion of the staff complement. The deployment of both staff and Luminary’s product/service platforms will be done virtually to ensure effective reach. Luminary will offer programs and services which build on the roles identified by the Luminary partners.

The organization will be supported by a governance structure that will include a national Luminary Advisory Body and specialized committees including, but not limited to, ‘Data and Intellectual Property’ and ‘Indigenous Talent’. Additional committees and governance structures could be added. Luminary will also report to Indigenous Works’ Board of Directors and to other organizations that will play significant roles as partners and advisors.

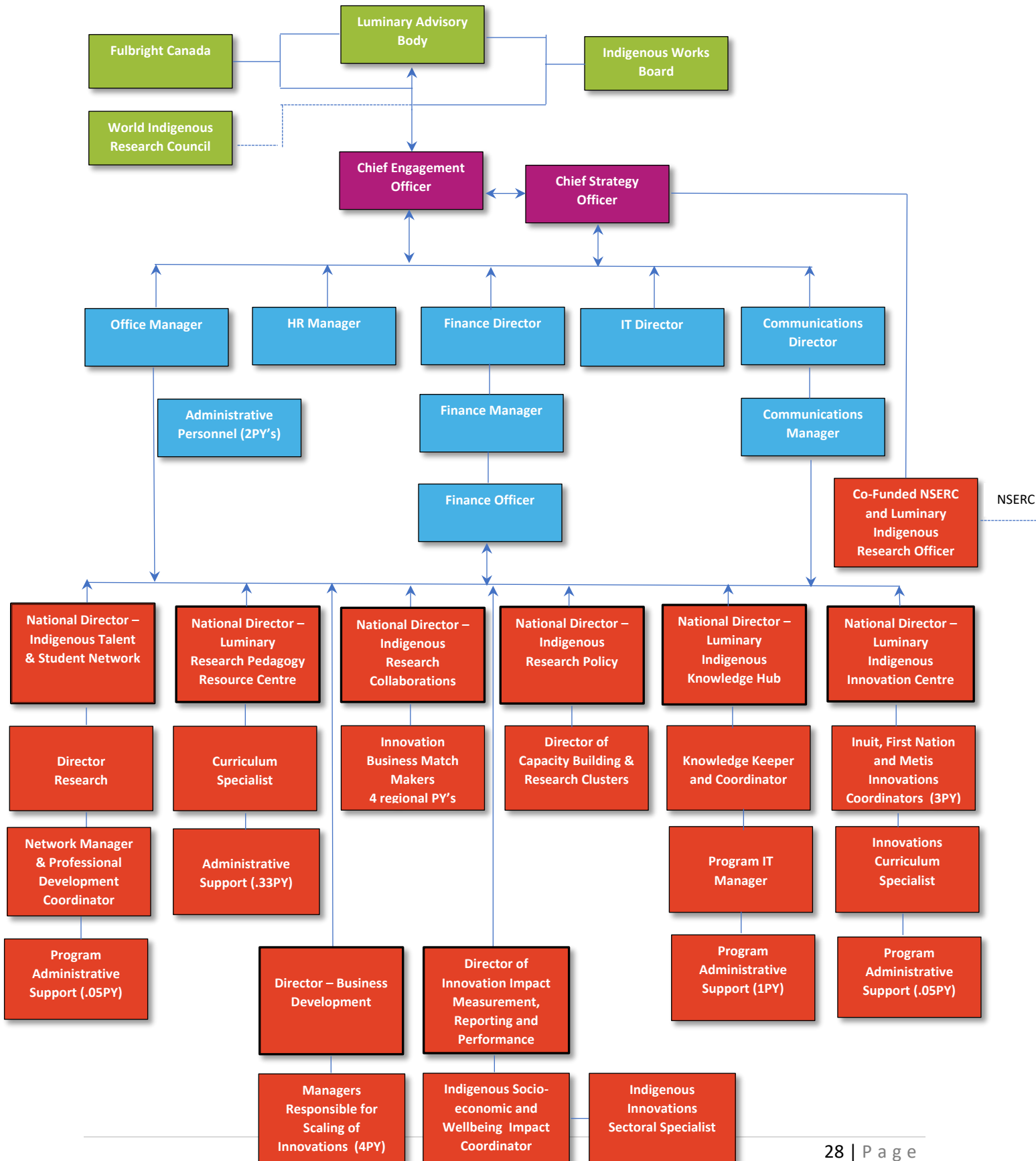
The organization’s senior management will oversee a group of finance and administrative personnel. A second group of program specialists will develop and manage Luminary’s programs and services, providing important liaison with the networks and partnerships which it will continue to forge.

The numbers of personnel will grow as programs and resources grow. Program staff will begin with the hiring of lead national directors and a few administrative staff who will help grow and develop the organization.

Dr. Ralph Nilson, President Emeritus in Residence, Fulbright Canada and Former President and Vice-Chancellor of Vancouver Island University suggests that ‘*Luminary could be like an Indigenous Innovation Supercluster that is needed by the research agencies, academic institutions and Indigenous business - nothing like it exists in Canada*’.

It is important that Luminary help build trust between Indigenous communities and post-secondary research institutions. Part of that work is to educate about the standards and guidelines Indigenous researchers have already put into place. For example, the First Nations principles of ownership, control, access, and possession - more commonly known as OCAP® - assert that First Nations have control over data collection processes, and that they own and control how this information can be used.
-- Anne Noonan. Co-Chair, Kocihta, Luminary Champion and Advisor

Luminary Organizational and Human Resource Concept Plan



RESEARCH AND INNOVATION CREATES JOBS, ECONOMIC BENEFIT, AND COMMUNITY WELLBEING

Improved performance of the Indigenous research and innovation ecosystem will create the conditions under which more research collaborations are made possible, knowledge mobilization is improved, and innovation will result in new products, services, and value creation. The result will be prosperity for Indigenous communities and a significant research growth for post-secondary institutions - in short, a win-win outcome. There are already good examples of the ways that Indigenous communities are working with post-secondary research institutions to innovate new products, services, and value-creation which is important to local economies and wellbeing. Five are presented here.

1. Research and Innovation in the Seaweed Industry

The Food and Agriculture Organization of the United Nations reports that the global seaweed industry has huge potential with some 85 percent of the current harvesting being used in food products. In the food sector alone, there has been tremendous interest in the use of plant-based proteins as a replacement for some foods groups. Kelp and many BC seaweeds can provide an important and abundant source of vitamins, minerals, and other nutrients for this burgeoning sector. On a global scale, the World Bank predicts that seaweed farming has the potential of adding about 10% to the world's present supply of food over the coming decades. Dr. Stephen Cross, a leading expert on coastal aquaculture states that 'we have the richest diversity of seaweeds in

'R&D expenditures that result in product innovation are generally labor-friendly, while the direct impact of research expenditures that result in process innovation are generally labor-saving. Industrial and innovation policies that support research and product innovation, especially in high-tech sectors, can lead to the emergence of new firms and new sectors—and new jobs. Meanwhile, any initial displacement of workers as a result of process innovation can be countered by indirect price, investment, and income compensation mechanisms that reduce the direct job-destroying impact of innovation. Thus, R&D investments, especially in high-tech sectors, may not only foster competitiveness, but may also be an effective means of creating jobs.' -- Marco Vivarelli, Innovation and Employment, IZA World of Labor, 2015

the world on our coast, over 630 species on coastal British Columbia alone, and we have done very little aquaculture with it. This is a \$10-billion industry globally, and it's almost all grown in Asia.' Seeing these opportunities has promoted some coastal nations to act.

Nuu-chah-nulth Seafood (NCNS) is a First Nation-owned seafood enterprise that operates on Vancouver Island's West Coast. NCNS had been exploring opportunities around the commercial cultivation of seaweed through research projects with North Island College when Cascadia, a newly formed aquaculture company, approached them. Nuu-chah-nulth Seafood decided to partner with Cascadia Seafood Company to cultivate seaweed.

In 2019 Cascadia Seaweed and Nuu-chah-nulth Seafood seeded an initial crop of several hectares yielding approximately 90 tons of kelp in June of 2020. Subsequent expansion to 20 hectares is underway, and further growth is planned.¹⁰

2. Research and Innovation in Mining Reclamation

Mitacs reports that they are working on a project with researchers from the University of Alberta and Yukon University along with mining companies, First Nations, and local communities in Yukon to innovate in mine restoration projects. Dr. Guillaume Nielsen holds the NSERC Chair in Northern Mine Remediation in partnership with seven mining companies with Yukon projects. A key thrust of their research has been to examine revegetation techniques. Companies engaged in the initiative are collectively organized as the Yukon Mining Research Consortium. Newmont is a lead supporter and other members of the consortium include: Alexco Resource Corp., BMC Minerals Ltd., Casino Mining Corp., Minto Explorations, Selwyn Chihong Mining Ltd., and Victoria Gold Corp.¹¹

3. ACR Systems Inc.

Albert Charles Rock is an entrepreneur of Métis Cree heritage, technical consultant, product developer, and Founder, President and Chairman of the Board of ACR Systems Inc., a multi-million-dollar technological enterprise with a growing network of worldwide distributors and dealers. ACR Systems, established in 1983 and headquartered in Surrey BC, is one of the world's

¹⁰ <https://www.cascadiaseaweed.com/partnership-with-nuu-chah-nulth-seafood-lp>

¹¹ www.Mitacs.ca

leading suppliers of a line of data loggers with over one million systems sold globally to industry leaders across a range of highly regulated industrial markets. The company has a long history of research and innovation, and it employs 30 people.

4. Monitoring Community Wellbeing

Natural Resources Canada reports on a project implemented by the Naskapi Nation (NNK below, or should it be NKN) in remote northern Quebec, a community accessible only by air and rail. The community has been affected by significant mineral development to date. Due to the rich mineral area surrounding the community, extractive companies have implemented plans for further development. This has raised local concerns regarding the range of environmental and socio-economic impacts that may be caused by development. Given the scale of proposed mining activity in this region, there is a need to develop a process to track community wellbeing over time, using community personnel and indicators that are meaningful to community members. A wellbeing study began with the NNK's partnership with the Department of Geography at the University of Guelph and the Canadian Business Ethics Research Network (CBERN). The study provides the means for the Nation to see and measure changes in their wellbeing and to communicate them to their partners in the industry. ¹²

5. Research and Innovation. Looking Back and Forward at Wapato

The wetland wapato is also known as the Indian potato. Wapato is a geophyte ('root food') that is part of the Alismataceae, or water plantain family. In coastal British Columbia, wapato populations were concentrated in the Pitt Lowlands prior to European contact. Historically, wapato flourished particularly in the Katzie homelands and was avidly sought in exchange by communities throughout Coast Salish territory to the extent that it has been called a cultural keystone species. Trade between nations flourished as wapato were exchanged and traded.

Beginning 3800 years ago and continuing for at least 700 years, the Katzie First Nation located on the Fraser River Delta were the commercial farmers who mass produced wapato's wild tubers. The ancestors of contemporary Coast Salish (Katzie) people fell into a deep and mutual love with wapato, built a life to accommodate their collective desires and needs, and sustained their

¹² www.NRCan.ca

knowledge and appreciation of wapato through hundreds of generations. Today, this knowledge is being applied through experimental research and ecological restoration in Katzie territory.¹³

Given that research has revealed the cultural and economic importance of wapato to the Katzie First Nation, could the tuber find a new place in the modern agri-food industry as a branded product with both domestic and export potential? More research is needed to analyze the nutrient and vitamin properties and how the tuber could be turned into a value-added product. Innovations past and present converge with the continuing story of wapato.

SUMMARY REMARKS AND CONCLUSIONS

Research and innovation can play a catalytic role to transform Indigenous economies, create jobs, and wellbeing.

Secured employment, more business development, wealth creation, and better-quality jobs are the aspirations we hear every day. These economic aspirations are balanced with Indigenous goals for personal and community wellbeing, a quality of life in alignment with Indigenous worldviews and values. The proposed Luminary Strategy will help move Indigenous communities to further positions of strength and prosperity.

¹³ Dr Tanja Hoffman, 'Katzie & the Wapato: An Archaeological Love Story', Journal of the World Archaeological Congress (© 2018) <https://doi.org/10.1007/s11759-018-9333-2>

From this...

‘Full reconciliation with Indigenous peoples will not happen without economic reconciliation. It is not only the fair and right thing to do, but there is a strong and compelling business case for all Canadians.’ -- Dawn Madahbee Leach, Chair, National Indigenous Economic Development Board (NIEDB)



To This



APPENDIX 1 – LUMINARY LOGIC MODEL

Introductory Notes

The logic model below succinctly diagrams the set of outcomes desired over the intermediate and longer-term horizons and the programming elements that intend to bring about them. It includes the groups of beneficiaries that will be impacted. The model helps to simplify the complex relationships between and among the beneficiaries, program components and outcomes that are desired.

It should be noted that there is no explicit reference to budgets, human resource strategy or implementation priorities in a logic model. The scale, scope, and implementation timeline of our logic model is influenced by a combination of funding levels and human resource management capacity. For example, implementing a specific program or service on a national level would require more financial and human resources as compared to a regional or provincial program launch. What does not change is the logic model itself.

Luminary Logic Model

Indigenous Innovation Ecosystem Streams	Audiences and Beneficiaries	Proposed Programs and Services	Intermediate Outcomes 1-3 years	Ultimate Outcomes 5+ Years
Stream 1 – Growing Indigenous Research Talent & Network	1. Indigenous Economic Development Corporations (500)	<u>Stream 1 – Growing Indigenous Research Talent & Network</u> <ul style="list-style-type: none"> - Establish the national Indigenous research student network. - Expand the Indigenous Researchers Career Studies program started in 2021. - Develop career planning resources for Indigenous student researchers. - Deliver professional development opportunities, i.e., national forum. 	1. Increased awareness and understanding of the role of research to achieve growth aspirations of Indigenous businesses and economic development corporations.	1. Increased economic transformation, employment, and wellbeing.
Stream 2– Indigenize Post-Secondary Institutions’ Curricula	2. Indigenous Businesses (50,000+)	<u>Stream 2 – Indigenize Post -Secondary Learning Curricula</u> <ul style="list-style-type: none"> - A Luminary pedagogy resource center - Indigenize inventories of course syllabus, case studies, subject matter experts and other tools. 	2. Opportunities identified to develop Indigenous-led research partnerships.	2. Increased Indigenous-led Research & Innovation Partnerships across Canada and Globally.
Stream 3 – Increase Indigenous-led Research Collaborations	3. Indigenous Researchers and Research Communities	<u>Stream 3 – Increase Indigenous -led Research Collaborations</u> <ul style="list-style-type: none"> - Provide a matching service with interactive mapping to Indigenous priorities. - Develop collaboration networks. - Conduct research on emerging collaboration practices. 	3. Increase in actively engagement post-secondary institutions and business schools in research collaborations.	3. Increased Indigenous Competitiveness.
Stream 4 – Build Indigenous Leadership & Institutional Capacity	4. Mainstream Researchers	<u>Stream 4 – Build Indigenous Leadership & Institutional Capacity for R & I</u> <ul style="list-style-type: none"> - Create and grow the Luminary community of practice. - Develop engagement and collaboration templates. - Develop a plan for new advocacy strategies and Initiatives. 	5. Increased knowledge mobilization.	4. Increased Performance of The Indigenous Research and Innovation Ecosystem.
Stream 5 – Develop Knowledge Transfer and Mobilization Strategies	5. Indigenous NGO	<u>Stream 5 – Develop and Implement Knowledge Transfer and Mobilization Strategies</u> <ul style="list-style-type: none"> - Design and administer knowledge-keepers research hubs. - Lead the development of policy papers to grow Indigenous knowledge. - Synthesize, translate, organize, and mobilize knowledge. 	6. Established collaborative Luminary Network through partnerships between academia, industry, government, and other organizations in Canada.	5. Increased Indigenous research talent.
Stream 6 – Increase Indigenous Innovation, Awareness, Skills & Know-how	6. Post-Secondary Institutions	<u>Stream 6 – Increasing Innovation Skills & Know-How</u> <ul style="list-style-type: none"> - Provide pathfinding services. - Develop Indigenous innovation curricula. - Create the Luminary Innovation Resource Center. 	6. Established collaborative Luminary Network through partnerships between academia, industry, government, and other organizations in Canada.	6. Ways and means of assessing impacts of increased research and innovation on Indigenous socio-economic development and wellbeing.
Stream 7- Identify & Support Indigenous Research Innovation Priorities	7. Research Agencies	<u>Stream 7 – Identify & Support Indigenous Research Innovation Priorities</u> <ul style="list-style-type: none"> - Conduct research about Indigenous Economic Development Corporations. - Host engagement forums and workshops. - Provide tools and templates to national and regional Indigenous organizations to identify priorities. 	6. Established collaborative Luminary Network through partnerships between academia, industry, government, and other organizations in Canada.	6. Ways and means of assessing impacts of increased research and innovation on Indigenous socio-economic development and wellbeing.
Stream 8 – Develop Framework to Measure & Assess the Impact of Research and Innovation on Wellbeing	8. Financiers (Social Impact & Business)	<u>Stream 8 – New Framework to Measure Impact of Indigenous Research and Innovation on Wellbeing</u> <ul style="list-style-type: none"> - Design with Stats Canada a framework to improve the measurement of Indigenous research and innovation. - Work with Indigenous organizations on policy actions which incorporate Indigenous wellbeing in economic development. - Continue Luminary’s sectoral focus, e.g., agriculture and agri-food. 	6. Established collaborative Luminary Network through partnerships between academia, industry, government, and other organizations in Canada.	6. Ways and means of assessing impacts of increased research and innovation on Indigenous socio-economic development and wellbeing.
	9. Philanthropic Community			
	10. Governments			
	11. Corporate Canada			

Luminary Implementation Plan Considerations

The Luminary Partners have identified an ambitious strategic plan. The next stage is to conduct a cost/benefit analysis of the proposed programs and services and consider ways of phasing or staging the strategy. For example, Luminary will continue with stream one, growing the Indigenous research talent and network that it launched in 2021. The sharing circles with Masters' and PhD students are underway and will be expanded in 2021/22. Similarly, Luminary has already launched the Luminary Agri-Business and Agri-Foods project with its funding from Protein Industries Canada, Agriculture and Agri-food Canada, and Nutrien.

If Luminary is only successful in raising or leveraging the minimum resources needed, it could still phase its program launches in stepped ways. For example, it could conduct some baseline research with the academic community, business schools, and Indigenous business community including Indigenous economic development corporations. This baseline would map the current level of activity in Indigenous innovation. This knowledge would be shared and could serve as a catalyst to start new collaborations. This would provide a proof of concept to showcase how Luminary is supporting its partners and moving towards the goals and outcomes. This evidence could then be used in a second phase of fundraising.

Another option is to move forward developing a series of Indigenous-led research collaboration pilots across Canada with First Nations, Métis, and Inuit in the far north, north, rural, and urban economic settings. A series of 20-30 Indigenous Innovation collaborations pilots could be constructed and implemented over a two-year period (2022-23).

The World Indigenous Nations Higher Education Consortium (WINHEC) which is established to bring together Indigenous scholars, researchers, Traditional storytellers, and Medicine people etc., interested in education. WINHEC has also taken on development and delivery of the World Accreditation body that provides accreditation for programs/courses and Institutions. WINHEC has also developed WIRC (World Indigenous Research Council) that provides a path for Indigenous researchers to conduct their research and have it published in the WIRC International Journal. Out of WINHEC, we have also established the World Indigenous Nations University (WINU). We are pleased to be exploring how best to design a partnership for Luminary and the World Indigenous Research Council. -- Dr. Rongo Wetere, Vice Chancellor, WINU

Impact Statement

This strategy describes how the Luminary roles will help to develop the Indigenous Research and Innovation Eco-system connecting the academic, Indigenous business, mainstream business, and NGO communities. Luminary will have numerous impacts filling the program and systems gaps which are impeding Indigenous-led research and innovation. It will help build capacities of Indigenous communities and businesses to engage in these activities, and it will shape the face of business education in Canada. Based on our vision, Luminary will have 8 impacts (impacts in 8 areas).

Vision: Create the first national Indigenous-led institutional innovation strategy to grow Indigenous research talent, develop new research and innovation collaborations, design new knowledge mobilization and sharing hubs, and measure the impact of innovation on Indigenous socio-economic wellbeing in Canada. In partnership with the World Indigenous Research Council, Luminary will position Canada as a global leader addressing Indigenous wellbeing gaps and issues.

Grow Indigenous Research Talent

Impact 1: Design and implement Canada's first National Indigenous Research Network of 1000+ Master and PhD Students who participate in new first-time research on personal and institutional pathways and trajectories; a new suite of career development resources; and a national networking and professional development conference targeting 400-500 Indigenous students.

Impact 2: Design, develop and implement Indigenous curricula, case studies and pedagogy models for Canada's 63 University Business Schools and 100+ College and Polytechnic business departments and document the pedagogical advances and outcomes in these institutions.

Develop New Research and Innovation Collaborations

- Impact 3: Implement the first comprehensive national assessment and mapping exercise of business schools, post-secondary institutions, and Indigenous Economic Development Corporations (IEDCs) to establish a current benchmark to identify at least 100 research and innovation priorities and the impact on jobs, commercialization, and wellbeing over the next five years.
- Impact 4: Identify the current capacity of 45 Indigenous academic institutions in Canada and work with the Business Schools Association of Canada (BSAC) and Colleges & Institutes Canada (CICan) to determine the capacity of these programs for increasing the capacity, innovation skills, and know-how to enable these institutions to formally enter one of the proposed 100 research and innovation collaborations in the first three years.
- Impact 5: Target 500 Indigenous businesses and IEDCs with an Indigenous Innovation Awareness and Education campaign to improve their understanding and encourage them to embrace research and innovation opportunities; Design and develop and innovation skills training program and syllabus with business programs at 30 universities and 30 colleges and institutes and 30 Indigenous businesses and IEDCs to measure and improve their performance in designing and executing research and innovation collaborations.
- Impact 6: Create 60 Indigenous Research and Innovation Collaborations, averaging 3-6 collaborative initiatives in each of the provinces and territories, that include 60 First Nations, Métis, and Inuit businesses and Indigenous Economic Development Corporations (IEDCs) to collectively generate 500 jobs, qualitative and quantitative wellbeing measures, and document new models of economic transformation.

Design New Knowledge Mobilization and Sharing Hubs

Impact 7: Create the first national Indigenous Innovation Knowledge Hub and become the premiere source of knowledge capital by gathering, organizing, synthesizing, and generating a suite of 20 value-added knowledge products and services which will accelerate research and innovation investments of 25 million dollars and generate economies of scale and transaction and learning through quality knowledge translation and mobilization strategies.

Measure the Impact of Innovation on Indigenous Socio-Economic Wellbeing

Impact 8: Develop the first Indigenous Wellbeing Index for Canada and design an evaluation framework to capture the qualitative and quantitative outputs, outcomes, and impacts.

APPENDIX 2 - LUMINARY CHARTER PLANNING PARTNERS

ORGANIZATIONS	Signatories
ELDERS' COUNCIL	Gilman Cardinal, (AB); Irene Lindsay (ON); Maggie Paul (NB) Sally Webster (NU); Joe Quewezance (SK)
LUMINARY CHAMPIONS AND ADVISORS	
1. Luminary Champion and Advisor	Michael Hawes, PhD, CEO, Fulbright Canada
2. Luminary Champion and Advisor	The Right Honourable Paul Martin
3. Luminary Champion and Advisor	Ralph Nilson, Professor Emeritus, Former President Vancouver Island University
4. Luminary Champion and Advisor	Anne Noonan, Vice-Chair Kocihta Indigenous Charity for Developing Human Resource & Career Potential; Former IW Chair; Former Economic, Public, Community Consultant
5. Luminary Champions and Advisor	Hon Christian Paradis, Former Federal Minister Public Works, NRCAN, Industry, International Development
6. Luminary Champion and Advisor	Her Excellency the Right Honourable Mary Simon OC, Governor General of Canada, Inuk Elder, Former President Inuit Tapatit Kanatami, Former IW Champion
RESEARCH STUDENT ADVISORY GROUP	Dan Brant, PhD, MPA, MASc Chanze Gamble, PhD, University of Victoria Michael Mihalicz, PhD, Toronto Metropolitan University Jacob Taylor, PhD, Candidate, University of North Dakota
FOUNDATIONS	
7. The Counselling Foundation of Canada	Bruce Lawson, President & CEO Ben Liadsky, Program Manager
8. Fulbright Canada, Foundation for Educational Exchange between Canada and the United States of America	Michael Hawes, PhD, CEO Robin McLay, Senior Advisor to the President and CEO and Regional Director, Fulbright West; Executive Director, Honouring Nations Canada
9. Kochita Indigenous Charity: Advancing Human Resource Potential and Career Advancement	Charlie Coffey O.C., Chair Anne Noonan, Vice-Chair
10. Sanyakola Indigenous Foundation	Sara Child, Executive Director Naida Brotchie, Director
NATIONAL EDUCATIONAL ORGANIZATIONS	
11. Business Schools Association of Canada	Tim Daus, Executive Director
12. Canadian Institutes and Colleges Canada (CiCAN)	Denise Amyot, President
13. Global University Systems	Graham Knipfel, Executive Director, Training, Industry & Indigenous Initiatives
14. Polytechnics Canada	Sarah Watts-Rynard, CEO Cody McKay, Policy Analyst
15. Universities Canada	Paul Davidson, President and CEO Philip Landon, Vice President and COO Gwendolyn Moncrieff-Gould, Government Relations Officer, External Relations and Research
UNIVERSITIES	
16. Algoma University	Asima Vezina President & Vice Chancellor Algoma University Donna Rogers Vice President, Academic & Research Algoma University
17. Australian National University (The)	Peter Yu, Vice-President First Nations

18. Cape Breton University, Shannon School of Business	John Nadeau, Dean Mary Beth Doucette, Purdy Crawford Chair in Aboriginal Business Studies Kevin McKague, Canada Research Chair
19. Carleton University, Sprott School of Business	Dana Brown, PhD, Dean, Rick Colbourne PhD, Assistant Dean, Assistant Professor, Indigenous Leadership and Management, Fulbright Fellow
20. Concordia University, John Molson School of Business	Anne-Marie Croteau, Dean Barbara Henchey, Director, Office of the Dean & Strategic Development
21. Concordia University of Edmonton & Mihalcheon School of Management	Tim Loreman, President and Vice-Chancellor Alison Yacyshyn, PhD, Dean
22. Dalhousie University, Faculty of Management	Kim Brooks, Dean, Purdy Crawford Chair in Business Law Louis Beaubien, Associate Dean Innovation Leo Paul Dana, Professor
23. Dalhousie University, Research and Innovation	Jennifer Bain, PhD, Interim Associate Vice-President Research Alice B. Aiken, Professor and Vice-President, Research & Innovation
24. Dilin Duwa Centre for Indigenous Business Leadership, University of Melbourne	Michelle Evans, Inaugural Director Mark Jones, Dilin Duwa Program Streams Lead and MURRA Director
25. First Nations University of Canada	Jacqueline Ottmann, PhD, President Bob Kayseas, Vice-President Academic Bettina Schneider, PhD, Associate Dean, Community, Research & Graduate Programs
26. HEC Montreal	Caroline Aube, Director of Research and Knowledge Transfer Lisanne Tremblay, Conseillère 4141uitté, Diversité, Inclusion
27. Huron University College	Geoff Read, PhD, Provost, Dean, Faculty of Arts and Social Science Jan Klakurka, Chair of Management and Organizational Studies
28. Lakehead University, Faculty of Business Administration	David A. Richards, Dean; Tim Hardie, Program Chair
29. McGill University, Desautels Faculty of Management	Marie-Josée Lamothe, Professor of Practice & Academic Director Lisa Ellen Cohen, Associate Professor and Director of Equity, Diversity and Inclusion
30. McGill University, Faculty of Engineering and The School for Continuing Studies	Katya March, Associate Director, Faculty of Engineering Innovation and Entrepreneurship Center Carmen Sicilia PhD, Associate Professor & Director, Indigenous Relations
31. McGill University, Office of the Vice-Principal, Research and Innovation	Mark Weber PhD, Director, Innovation and Partnerships Kakwiranó:ron Cook, Special Advisor, Indigenous Initiatives, Office of the Provost & Vice-Principal
32. Mount Allison University, Ron Joyce Centre for Business Studies	Nauman Farooqi PhD, Dean, Department of Commerce
33. Nipissing University	Prasad Ravi, Dean, Business School
34. Northern Arizona University	Dr. Manley Alan Begay, Jr., Ed.D.; Dept of Applied Indigenous Studies and Department of Politics and International Affairs, College of Social and Behavioral Sciences, and W.A. Franke College of Business
35. Ontario Tech University	Les Jacobs, PhD, FRSC Vice-President, Research & Innovation Michael Bliemel, PhD, Dean, Faculty of Business and Information Technology
36. Queens University, Smith School of Business	Brenda Brouwer, PhD, Dean Laurie Ross, Executive Director
37. Toronto Metropolitan University, Ted Rogers School of Business	Cynthia Holmes, Dean

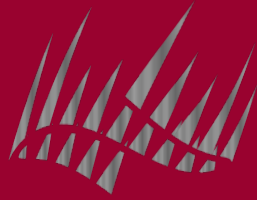
38. Toronto Metropolitan University, Lincoln Alexander School of Law	Frankie Young, Assistant Professor
39. St. Francis Xavier University	Richard Isnor, Associate Vice President, Research and Graduate Studies Jane McMillan, Professor, Department of Anthropology
40. St. Francis Xavier University, Gerald Schwartz School of Business	Tim Hynes, Dean of Business Bobbi Morrison, Associate Professor, Marketing
41. Thompson Rivers University, School of Business and Economics	Michael Henry, Dean, School of Business and Economics Scott Rankin, Assistant Professor, School of Business and Economics Tina Matthew, Executive Director, Office of Indigenous Affairs
42. Trent University, School of Business and Trent Chanie Wenjack School of Indigenous Studies	Byron Lew, Director David Newhouse, Director
43. Université Laval	Frank Pons, Dean, Business School Josianne Marsan, Associate Dean of Research and Innovation Margaret Schomaker, Vice Dean of Academic and Student Affairs of International Accreditations
44. University of Alberta	Florence Glanfield PhD, Vice-Provost, Indigenous Programming and Research Steven Dew PhD, Peng., Provost & Vice-President, Academic
45. University of Alberta, Alberta School of Business	Joseph Doucet, Dean Michelle Innes, Assistant Dean – Equity, Diversity and Inclusion David Deephouse, Professor and IW Partnership Coordinator
46. University of British Columbia, Sauder School of Business	Mahesh Nagarajan, Senior Associate Dean, Research Ch’nook Indigenous Business Education
47. University of Calgary, Haskayne School of Business	Jim Dewald, Dean Michael Hart PhD, Vice-Provost Indigenous Engagement
48. University of Guelph, Dean Gordon S. Lang School of Business & Economics	Lysa Porth, PhD, Dean
49. University of Lethbridge, Dhillon School of Business	Kerry Godfrey, Dean Heather Mirau, MBA, MCPM, Director, Integrated Planning, Office of the Provost & Vice-President, Academic
50. University of Manitoba	Michael Benarroch, PhD, President & Vice-Chancellor
51. University of Manitoba, Asper (I.H.) School of Management	Dr. Zhenyu Wu, Associate Dean of Research Debra Jonasson-Young, Executive Director Stu Clark Centre for Entrepreneurship Peter Pomart, Program Director
52. University of Ottawa, Faculty of Law	Kristen Boon, Dean
53. University of Ottawa, Telfer School of Management	Stephane Brutus, Dean
54. University of Northern British Columbia	Kathy Lewis, Acting Vice-President Research
55. University of Prince Edward Island, Faculty of Business	Gary Evans, PhD, Professor David Varis, Sessional Lecturer
56. University of Regina, Hill and Levene Schools of Business	Gina Grandy, Dean Lisa Watson, Associate Dean Research and Graduate Programs Omid Mirzaei, Assistant Professor, Economics
57. University of Saskatchewan, Edwards School of Business	Dr. Keith Willoughby, PhD, Dean
58. University of Saskatchewan, Johnson-Shoyama Graduate School of Public Policy	Ken Coates, PhD, Canada Research Chair in Regional Innovation
59. University of Saskatchewan	Peter Stoicheff, PhD, President and Vice-Chancellor
60. Vancouver Island University	Deb Saucier, President

61. Western University, Office of Indigenous Initiatives and Faculty of Law	Christy Bressette, Vice Provost / Associate Vice President (Indigenous Initiatives) Erika Chamberlain, Dean of Law
62. York University, Future Skills Centre	Pedro Barata, Executive Director Rajanthi Manivannan, Director of Strategy
63. York University, Schulich School of Business	Detlev Swick, Interim Dean Theodore Noseworthy, Interim ADR
COLLEGES & INSTITUTES & POLYTECHNICS	
64. Algonquin College	Ron (Deganadus) McLester Vice President – Truth, Reconciliation & Indigenization
65. British Columbia Institute of Technology	Leelah Dawson, Dean, School of Business & Media Caroline Despatie, Associate Dean, School of Business & Media Kory Wilson, Executive Director, Indigenous Initiatives & Partnerships
66. Camosun College	Richard Stride, Dean
67. Coast Mountain College	Colin Elliott, Director of Applied Research, Libraries and Emerging Technologies
68. Conestoga College	Dr. Stephen Cross, Director Applied Research
69. Confederation College	Kathleen Lynch, President Richard Gemmill, Dean, School of Business, Hospitality and Media Arta Carol Cline, Chair Academic Upgrading, Workforce Development and Northwest Employment Works Brenda Small, VP Centre for Policy in Aboriginal Learning
70. George Brown College	Rick Huijbregts, Vice President, Strategy & Innovation Krista Holmes, PhD, Director, Research & Innovation
71. Humber College Institute of Technology and Advanced Learning	Chris Whitaker, President & CEO Laurie Rancourt, Senior VP Academic Jason Hunter, VP Students and Institutional Planning Jason Seright, Dean Indigenous Education and Engagement
72. Kwantlen Polytechnic University	Alan Davies, President Stephanie Howes, Dean, Deepak Gupta, Associate VP
73. Lambton Community College	Judy Morris, President Mehdi Sheikhzadeh, Research and Innovation
74. Lethbridge College	Paula Burns, President Kenny Corscadden, Associate VP Research
75. Medicine Hat College	Paula Forsythe, Vice President, Academic & Provost
76. New Brunswick Community College	Mary Butler, President Heather Allaby, Executive Director, Strategic and Integrated Engagement Diane Burt, Director of Research, Innovation & Experiential Learning
77. Nicola Valley Institute of Technology	Ken Tourand, President & CEO Dr. Verna Billy Minnabarriet, Vice President of Strategic Partnerships
78. Northern College	Fred Gibbons PhD, President and CEO Audrey Penner PhD, Vice-President Academic
79. Red River College	Isabel Bright, Dean – School of Indigenous Education Dr. Christine Watson, VP Academic and Research Samantha Owsianski, Industry Liaison Manager – Research Partnerships & Innovation Dr. Simon Potter, Director – Research Partnerships & Innovation Jamie Chahine, Indigenous Research Liaison – Prairie Research Kitchen Wade Parke, Co-Op Coordinator – School of Indigenous Education
80. St. Clair College	Peter Wawrow, PhD, Director Applied Research and Development

	Mary Sampson, Indigenous Counsellor
81. Southern Alberta Institute of Technology (SAIT)	Tom Bornhorst, Vice President, Corporate Development, Applied Research and International Rick Tofani, Director
82. Saskatchewan Polytechnic	Dr. Larry Rosia, President & CEO Susan Blum, Associate Vice-President, Applied Research and Innovation
83. Selkirk College	Maggie Matear, President & CEO Terri MacDonald Director Applied Research and Innovation
84. Seneca College of Applied Arts and Technology, Business Department	Sarah Arliss, Interim Dean of Business Mark Solomon, Director, Student Life Applied Arts and Technology
85. Sheridan College	Janet Morrison, President and Vice-Chancellor Andrea England, Vice Provost, Research Jane Ngobia Vice President, Inclusive Communities Elijah M Williams, Director Indigenous Engagement
INDIGENOUS ECONOMIC DEVELOPMENT CORPORATIONS/ORGANIZATIONS	
86. Agency Chiefs Economic Development Corporation	Ken Thomas, CEO
87. Alberta Indian Investment Corporation	Rocky Sinclair, CEO
88. Clarence Campeau Development Fund	Pam Larson, CEO
89. Council for the Advancement of Native Economic Development Officers	Ray Wanuch, National Executive Director Paul Macedo, Communications Director
90. Denendeh Development Corporation	Darrell Beaulieu, CEO Margaret Gorman, COO
91. Des Nedhe Development	Sean Willy, CEO
92. FHQ Developments	Thomas Benjoe, President & CEO
93. Gitxsan Economic Development Corporation	Rick Connors, CEO
94. Igloolik Municipality	Merlyn Recinos, Mayor of The Municipality of Igloolik
95. Joint Economic Development Initiative (JEDI)	Stanley Barnaby, CEO
96. Kitigan Zibi Community Economic Development	Christine Stevens, Community Services Director Dylan Whiteduck, Community Economic Dev Director
97. Kingsclear First Nations – Municipal GP Inc	Ryan Dunbar, Representative
98. Metis Nation of BC Economic Development	Lisa Clement, Director Economic Development & Partnerships
99. Neyaskweyahk Group of Companies	
100. Nunavut Economic Developers Association	Bill Williams, Executive Director
101. Osoyoos Indian Band Economic Development	Chief Clarence Louie Leona Baptiste, Director of Human Resources
102. Peter Ballantyne Cree Nation Economic Development Corporation	Trevor Ives, CEO
103. Saint Mary's First Nations Economic Development	Kim Nash-McKinley, Director of Economic Development
104. Saskatchewan Indian Equity Foundation Inc	Terry Brodziak, General Manager
105. Seabird Island Economic Development Corporation	Jason Campbell, CEO
106. Six Nations Development Corporation	Matt Jamieson, CEO

107. Tewathnki'saktha Economic Development	Barbara McComber, CEO Coreen Delormier, Business Retention and Expansion Officer
108. Ulnooweg Development Group Inc	Chris Googoo, COO Paul Langdon, SI Director of Development
109. Waubetek Business Development Corporation	Dawn Madahbee Leach, General Manager
110. Whitecap Dakota Economic Development Corporation	Chief Darcy Bear Darrell Balkwill, CEO
INDIGENOUS PRIVATE SECTOR BUSINESS	
111. Aboriginal Chamber of Commerce	Fabian Sanderson, Chair Jamie Dumont, Vice-Chair
112. Anishinabek Employment & Training Services	John DeGiacomo, Executive Director
113. Brook McIlroy Inc	Ryan Gorrie Senior Associate, Director, Indigenous Design Studio Calvin Brook, Principal, Architecture, Landscape Architecture, Planning
114. Centre for Indigenous Innovation & Technology	Jarret Leaman, Founder
115. Chief Defence Contracts Inc. (Indigenous Corporation)	Michael Scully, President
116. First Australians Capital Ltd., Australia	Leah Armstrong, Managing Director
117. First Nations Power Authority	Guy Lonechild, CEO
118. Imagination Group of Companies	Marie Delorme PhD, CEO Colby Delorme, President
119. Indigeneity Enterprise Inc.	Chief Byron Louis, Co-Chair
120. Inukshuk Synergy	Melanie Paul, President
121. Kiyam Nutrients Inc.	Brad Greyeyes-Brant, President & CEO
122. Pontiac Group Ltd.	Jacob Taylor, CEO
123. Qikiqtaaluk Corporation	Jerry Ward, Director of Fisheries Jesslene Jawanda, Fisheries Division Coordinator
124. Wakopa Financial Workers' Co-Operative	Richard Tuck, CEO
PRIVATE SECTOR BUSINESS	
125. Actua	Jennifer Flanagan, CEO Doug Dokis, Director, National Youth in STEM program
126. adMare Bioinnovations	Gordon McCauley, President and CEO Christine Allen, Vice President Ecosystem Development
127. ARC Nuclear Canada	Norman Sawyer, CEO Fawn Zeuchner, Program Manager
128. Calian Group Ltd	Terri Dougall, Director Corporate Affairs
129. Canadian Construction Association	Mary van Buren, President
130. Canadian Mountain Network	Monique Dubé, PhD, Executive Director Matthew Berry, Strategic Advisor
131. Chandos Construction Ltd	Tim Coldwell, President
132. Énergie NB Power	Keith Cronkhite President & CEO Suzanne Desrosiers, Vice-President HR Jesse Perley, A/Director, Indigenous Relations
133. Farm Credit Corporation	Greg Honey, Vice-President Human Resources Shaun Soonias, Director, Indigenous Relations
134. Farm Management Canada	Heather Watson, Executive Director Shawna Holmes, Project Manager
135. Frog Lake First Nation	Clifton Cross, Council Member Jason Quinney, Council Member

136. GardaWorld Canada	Jean-Luc Meunier, COO Cy King, President Garda North & Special Advisor COO, Indigenous Business Engagements
137. Genome Canada	Dr. Robert Annan, President & CEO Pari Johnston, Vice-President, Policy and Public Affairs
138. Grand Challenges Canada	David Walders, Deputy Director Sara Wolfe, Director
139. International Brotherhood of Electrical Workers (IBEW)	Cheryl Paron, Diversity and Inclusion Kate Buinimasi, Education Specialist
140. Industry Training Authority British Columbia	Jacob McKay, Indigenous Advisor
141. Information & Communications Technology Council	Namir Anani, President & CEO Nathan Snider, Manager Policy & Outreach
142. Manitoba Pork Council	Janice Goldsborough, Human Resources & Training Coordinator
143. Moltex Energy	Rory O'Sullivan, CEO Paula Creary, Quality Assurance and Licensing Manager
144. Oakland Industries Ltd.	Darren Bakstad, VP of Operations
145. Octane Safety Services Ltd	Jessica Coleman, President Tara Behrens, Chief Operations Officer
146. Saskatchewan Chamber of Commerce	Steve McLellan, CEO Nick Crighton, Indigenous Partnership Director Joshua Kurkjian, Research and Innovation
147. Tech-Access Canada	Ken Doyle, Executive Director
NGO's & INSTITUTES	
148. Aotearoa Institute/ArrowMight Canada	Dr Rongo H Wetere, ONZM, Managing Director New Zealand
149. B.C. Children's Hospital Research Institute - PHSA	Dr. Stuart Turvey, Interim VP Research Dr. Ian Pike, Professor & Director of Pediatrics (UBC & BC Injury Research & Prevention Unit)
150. Canadian Agricultural Human Resource Council	Jennifer Wright, A/Executive Director
151. Community First Development – Australia	Stephanie Harvey, CEO Tom Layton, General Manger Business Development and Innovation
152. CORCAN Correctional Services Canada	Kelly Hartle, CEO Doug Devos, Operations Manager, CORCAN
153. Eco Canada	Yogendra Chaudhry, Vice President Professional Services Brad Spence, Indigenous and Community Specialist
154. Global Food Lead	Brenda Schoepp, Director
155. Indigenomics Institute	Carol Anne Hilton, President
156. Let's Talk Science	Bonnie Schmidt, President
157. Martin Family Initiative	Lucie Santoro, Director
158. Prince Edward Island Agriculture Sector Council	Laurie Loane, Executive Director
159. Social Entrepreneurship Enclave	Richard Tuck, Co-Founder Joanna Nickerson, Co-Founder
160. Statistics Canada	Anil Arora, Chief Statistician Andrew Heisz, Director, Centre for Income and Socioeconomic Wellbeing Haig McCarrell, Director, Centre for Investments, Science and Technology Heather McLeod, Director, Centre of Indigenous Statistics and Partnerships
161. TakingITGlobal & Connected North	Michael Furdyk, Co-Founder and Director of Innovation



LUMINARY

Advancing Indigenous Innovation for Economic
Transformation, Employment and Wellbeing

 Indigenous Works

