



Manitoba Industry- Academia Partnership

AUGUST 2019 - MARCH 2023



Message from the Chair

As we bring to a close the current funding agreement for MI-AP, which ends 31 March 2023, it is my pleasure to offer congratulations to the MI-AP team for their successes in building meaningful connections between post-secondary institutions (PSIs), businesses, governments, and external organizations. Since its inception in the Fall of 2019, MI-AP has made significant contributions in our three priority areas: enhancing PSI and industry collaboration through Indigenous engagement, and work-integrated learning (WIL) and research and development.

MI-AP has brought together a wide range of stakeholders to facilitate collaboration on mutual interests and enable economic growth and vitality in our province. Through seventeen engagement tables, three resource-sharing forums, and other initiatives, MI-AP has helped produce over forty new innovative partnerships. We hosted six AIMday events over MI-AP's term, which resulted in forty-two successful research projects developed between companies and PSI researchers. The Indigenous Pillar launched the "Safe Spaces" cultural competency training program for employers to enable organizations to provide culturally-safe spaces for marginalized students, and "Horizon", an on-line resource for Indigenous post-secondary students in Manitoba. We are pleased to hand off the Horizon website to the Manitoba Collaborative Indigenous Education Blueprint (MCIEB) for the continued benefit of students and student advisors. MI-AP also collaborated with the nine PSIs to develop a coordinated approach for Experiential Learning and Work-Integrated Learning (EL/WIL). The MI-AP EL/WIL Operating Committee gathered feedback to understand the needs of industry partners, and with the direction of the PSI EL/WIL Committee, has identified steps forward to expand and enhance WIL opportunities for students in our province.

I would like to thank my fellow members of the Steering Committee for their guidance: Bram Strain (Business Council of Manitoba), Christine E. Watson (Red River College Polytech), Darren Fast (University of Manitoba), Jino Distasio (University of Winnipeg), Mark Torchia (University of Manitoba), and Ray Karasevich (Manitoba Institute of Trades and Technology). I also want to acknowledge and thank Don Leitch, who was President and CEO of the Business Council of Manitoba in 2019, for his commitment, guidance, and ongoing support of MI-AP.

John (Jay) Doering, Ph.D., P.Eng., FCSCE, FEC, FCAE, FCSSE
Chair, MI-AP Steering Committee
and Former Associate Vice-President (Partnerships), University of Manitoba

*The offices of Manitoba Industry - Academia Partnership is located on Treaty 1 territory, the home and traditional lands of the Anishinabe, Cree, Oji-Cree, Dakota and Dene Nations and is the National Homeland of the Métis nation.
Our clean drinking water comes from Shoal Lake 40 First Nation in Treaty 3 territory.*



Message from the Managing Director

As our world enters the fourth industrial revolution, characterized by rapid advances in automation and artificial intelligence, many industries are due for stark disruption of existing technologies and workforces. These changes will have profound impacts on Manitoba's key industries including manufacturing, agriculture, construction, and transportation. Manitoba is faced with a unique opportunity to be collaborative and strategic in its approach to address these challenges.

The Manitoba Industry-Academia Partnership (MI-AP) was launched to address these challenges and seize collaborative opportunities. With considerable success in all its key priority areas, there lies significant potential in utilizing MI-AP's progress to generate new collaborations and enhance focus on sectors of great economic capacity for Manitoba.

I would like to use this report to look back on a project that turned out much differently than anyone could have imagined when it was being created in the summer of 2019 and take you on the journey through the remarkable successes that the MI-AP initiative has had in each of its priority areas. We can take pride in the fact that when the pandemic brought the world to a halt and forced us to keep our distance, the work we did helped people to stay connected, continue to build relationships and engage in meaningful conversations that lead to exciting projects. It is important to note that a commitment to equity, diversity and inclusion, centered in the participation of Indigenous Peoples and historically underrepresented groups, have been guiding principles in each of MI-AP's discussions, relations, and initiatives.

As the end of my third year with the MI-AP project approaches, I find myself thankful for the opportunity to manage and advance this initiative. It was truly one of those projects that you are building the bridge while you are walking on it. It has been a rewarding, challenging and exciting experience to work alongside so many passionate people.

Thank you to the organizations that we worked with to host the engagement tables and AIMdays. It has been fascinating to observe the impacts of what bringing groups together to engage with purposeful communication can accomplish or achieve. Thank you to the many MI-AP staff that have joined the team and moved on to new exciting roles both within the PSIs across the province and to external organizations. To my current MI-AP team, my heartfelt thanks to each one of you for your wonderful example of dedication, professionalism and responsibility to ensure the MI-AP initiative finished strong. Altogether, MI-AP has impacted many areas within industry, government and the PSIs and has catalyzed relationships that will benefit the long-term growth of Manitoba.

Myrna Grahn, PHEc
Managing Director, MI-AP

Mission & Mandate

Manitoba's Post-Secondary Institutions in partnership with the business sector will undertake initiatives to help better prepare graduates for the labour market, further enhance industry-academia partnerships and collaboration, and support Indigenous and non-traditional students for the cultural, economic, societal health, and vitality of Manitoba.



Research & Development Pillar

Stimulating economic growth through technology transfer and innovation

- Enhance industry's awareness of the expertise, available technologies and research facilities at post-secondary institutions (PSIs).
- Increase the number of Industry/PSI collaborations using vehicles like Mitacs and NSERC partnerships.
- Develop a province-wide strategy to enhance industry-post-secondary collaboration.

Action: Host Academic Industry Meeting day (AIMday) events, which allow organizations to gain academic perspective into industry challenges and allow researchers to meet potential partners leading to new opportunities for collaboration.



Experiential Learning & Work-Integrated Learning Pillar

Enhancing collaboration between industry and post-secondaries to increase work-integrated learning opportunities

- In partnership with employers, develop a plan to take full advantage of government and other supports to create enhanced work integrated learning (WIL) opportunities, with the goal of expanding the breadth and scope of experiential and applied learning.
- In pursuit of greater connection between Industry needs and PSIs, businesses will enhance their ability to acquire talent, pivot and augment their workforce.

Action: Create "engagement tables" with leaders in economic sectors to discuss economic potential and workforce trends. Facilitated discussions will identify gaps and challenges and to develop solutions. Conversations between industry and academia will highlight the most relevant intelligent technologies for the sectors, the most in-demand skills and how those can be fostered both in academic and work-integrated learning settings.



Indigenous Pillar

Collaborating to advance Indigenous education and employment

- Develop a coordinated provincial approach to supporting Indigenous students, to include mentoring and work-integrated learning, leading to employment after graduation.
- Enhance objectives of the Indigenous Education Awards Program at the Business Council of Manitoba.

Action: Identification of supports required to expand Indigenous worker engagement.

Fostering Collaboration

MI-AP has first-hand experience and understands the importance of building and maintaining close linkages between post-secondary institutions (PSIs), businesses, employers, governments, and external organizations. This facilitated process of bringing together stakeholders through hosting engagement tables and other events fill an identified need for increased two-way channels of communication. It is also mutually beneficial for increasing experiential and work-integrated learning, research opportunities and innovative industry-based solutions.

Engagement tables The way we work



Engagement tables were co-hosted with an external industry partner. We worked to bring together people from a range of perspectives and interests to discuss a topic of relevance to Manitoba's social and economic well-being.

- Artificial Intelligence
- Community Economic Development (Indigenous Pillar)
- Digital Agriculture (3)
- Diverse Workforce Strategies
- Heavy Equipment and Vehicle Manufacturing (3)
- Indigenous Student Roundtable
- Leaders in Indigenous Education
- Media Production (2)
- Manitoba North
- Sustainable Packaging
- Experiential Learning & Work-Integrated Learning (2)



17

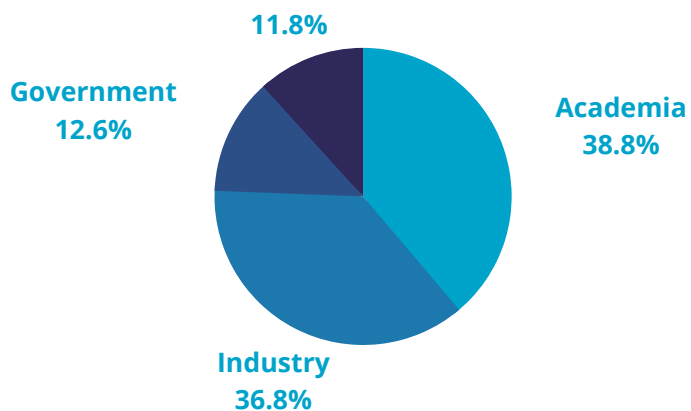
Engagement Tables



>715

Participants

Sector Councils & Associations



Representation across all industry-specific engagement tables

Top 10 priorities identified from industry-specific Engagement Tables

1

Regular & effective 2-way communication

All groups declared that meaningful collaboration and consultation between all stakeholders is a priority.

7/7

2

Mechanism for communicating existing programs, resources and expertise

All tables desire a centralized resource, or mechanism, to share and locate funding and training opportunities as well as current research programs and expertise.

7/7

3

Enhanced training and education opportunities

Almost all groups want to see more accessible and targeted training programs to meet partner specific needs.

6/7

4

Stronger relationship between Industry and Academia

Table participants desire increased communication to enable better understanding of Industry needs, the areas of expertise of Academia, and how to best collaborate.

6/7

5

Financial support for training opportunities

Most groups identified the need for more financial aid for students, newcomers to Canada, and current employees for up-skilling / re-skilling programs.

6/7

6

Work-integrated learning and job experiences for students

Almost all sectors stated they want better access to EL / WIL experiences for students, and clearer pathways for Industry to connect with PSI programs.

5/7

7

Increased government support

Many sector tables expressed the need for more robust funding programs and favourable policies to enable sector growth.

5/7

8

Essential human skills training for students

Industry partners want graduates to have proficient skills in communication and relationship-building.

5/7

9

Research and Development

Many tables expressed the desire to actively foster an environment for research and innovation in their sector.

4/7

10

Connectivity

Several sectors noted that access to reliable broadband internet is an ongoing barrier for remote and Northern communities and an impediment to growth in their industry.

3/7

Partnering is integral to our mission.

Throughout MI-AP's work, many different relationships were created with organizations, government bodies and educational institutions. Much of the work was accomplished from consultations within these relationships. Partnerships in the section below are defined by co-hosting Engagement Tables and other stakeholder meetings and training workshops, as well as new collaborations that received pre-study funding at AIMday.

Post-Secondary Institutions

- Assiniboine Community College
- Brandon University
- Canadian Mennonite University
- Manitoba Institute of Trades & Technology
- Red River College Polytech
- University College of the North
- University of Manitoba
- L'Université de Saint-Boniface
- University of Winnipeg



Service Providers

- inVision Edge
- Relish
- Wythe Consulting

Sector Councils & Associations

- Bioscience Association Manitoba (BAM)
- Business Council of Manitoba
- Canadian Manufacturing & Exporters (CME)
- Economic Development Winnipeg (EDW)
- Enterprise Machine Intelligence and Learning Initiative (EMILI)
- Food & Beverage Manitoba
- Information and Communications Technology Council (ICTC)
- On-Screen Manitoba
- Northern Manitoba Sector Council
- Manitoba Chamber of Commerce
- Manitoba Collaborative Indigenous Education Blueprint (MCIEB)
- Manitoba Construction Sector Council
- Manitoba Environmental Industries Association (MEIA)
- Mitacs
- Supply Chain Canada, Manitoba Institute
- Tech Manitoba
- Vehicle Technology Centre
- Winnipeg Chamber of Commerce
- Yes!Winnipeg

Companies

- AeroPlus
- Airport Technologies
- BioTEI Inc.
- City Mix
- City of Winnipeg
- Enns Brothers
- Grey & Ivy
- Kisik Clean Energy
- LaFarge
- MacDon Industries
- Manitoba Agriculture Diversification Centres
- Manitoba Beef & Forage Initiatives
- Manitoba Infrastructure
- Manitoba Home Builders' Association
- Manitoba Infrastructure
- Manitoba Trucking Association
- New Flyer
- Myera Group
- Prairie Cricket Farms
- Prairie Oat Growers
- Topigs Norsvin
- Warburtons

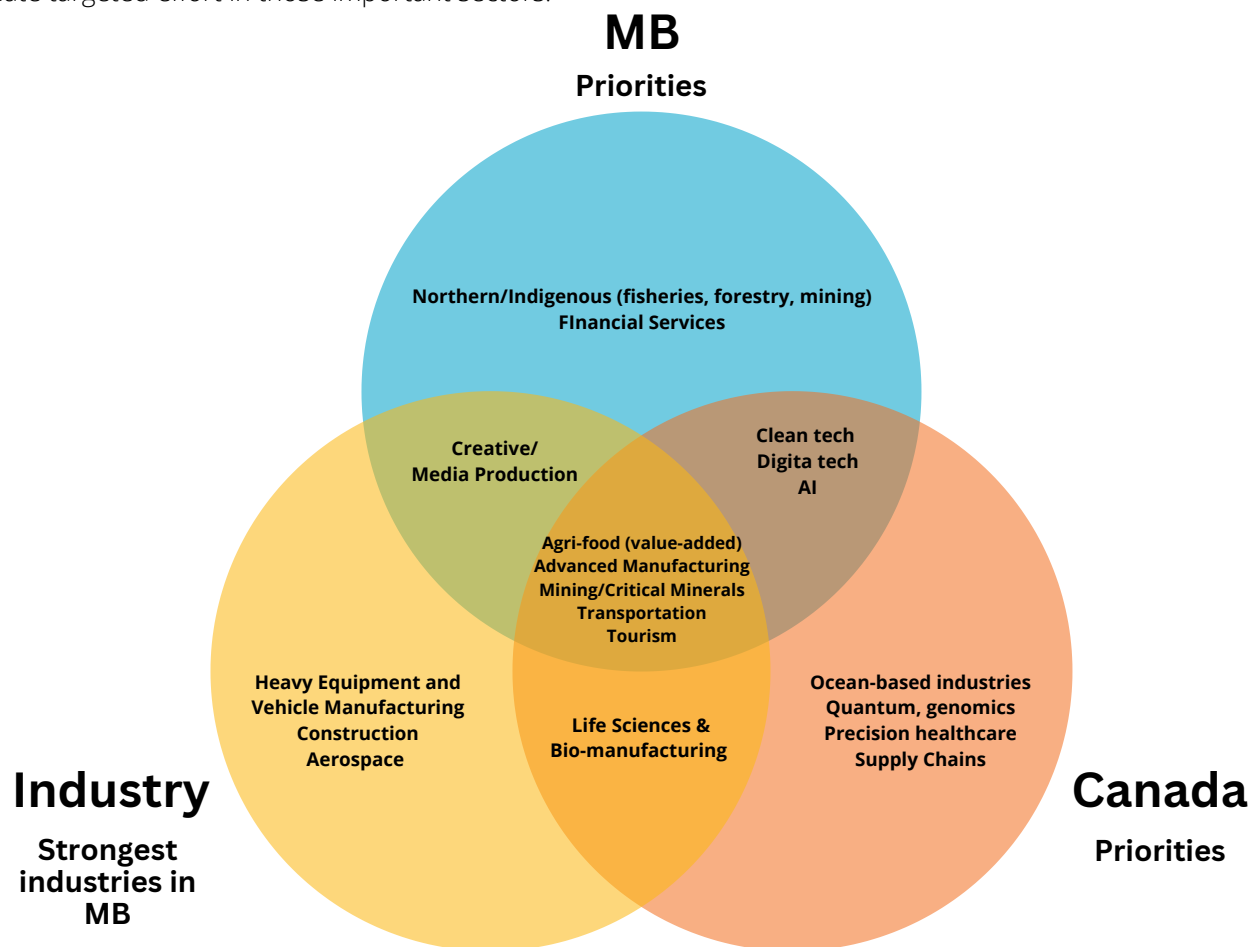
The heavy vehicle and equipment industry is at the beginning of a radical skill transition. Traditionally separate mechanical, electrical, computer corporate roles are giving way to a requirement for a more cross functional employee skill set that is needed in our technical design and R&D design functions as well as on our shop floors. To meet this challenge, we need academia and industry to work together to train new employees and retrain our existing workforce to meet these needs to keep these vital jobs in Manitoba.

- Ron Vanderwees, President and CEO of the Vehicle Technology Centre

Opportunities for Collaborative Action

Over MI-AP's four-year term, executives from industry, post-secondary institutions and government from various industry sectors were brought together to discuss challenges facing their organization and their sector as a whole. Certain ideas transcended in nearly all discussions; the lack of communication and coordinated effort between industry, academia and government, broad skills and talent gaps in evolving sectors, and the need for improvements in experiential learning with an emphasis on human skills. These cross-sectoral gaps highlight the need for actionable, collaborative effort. Manitoba's post-secondary institutions and private sector have a longstanding, collaborative relationship and together with government, it will be crucial to expand these partnerships to ensure Manitoba's success.

During MI-AP's four years of discourse, several industry sectors emerged as potential focus areas for collaborative action. As outlined in the following diagram, select sectors align with the Province of Manitoba's and the government of Canada's economic priorities, whilst being key economic drivers for Manitoba. As identified by the Royal Bank of Canada's Humans Wanted study, agriculture, manufacturing, and transportation among others are particularly vulnerable to automation, having serious implications for Manitoba's future. Thus, there lies a significant opportunity to initiate targeted effort in those important sectors.



Data compiled from Government of Manitoba Budget 2022, Government of Canada Budget 2022 and "Manitoba's Key Industries" <https://www.gov.mb.ca/jec/mbadvantage/businessdev.html>

In following up on priorities raised at Engagement Tables, MI-AP also completed four preliminary environmental scans:

- Manitoba Innovation Ecosystem Map
- Innovation Investment (national and provincial)
- Broadband Investment (national and provincial)
- EL/WIL programs and funding (national and provincial)

Strategic Roadmaps

Several sectors voiced their desire to go beyond the collaborative work of the engagement tables to embark on a Strategic Plan for their sector. InVision Edge facilitated a group of diverse stakeholders through a three-step strategy execution sessions.

Since 2020, the Manitoba Digital Agriculture Table, led by MI-AP and EMILI, has brought together forty members from across agriculture to have meaningful conversations that bridges industry and academia and fosters connection and innovation to grow the digital agriculture ecosystem.

- Jacqueline Keena, Managing Director, EMILI

Digital Agriculture

With Enterprise Machine Intelligence Learning Initiative (EMILI)

- Foster Industry and Academic alignment to increase research and development partnerships
- Skills and talent gap identification and mitigation
- Increase education and training to enhance career opportunities

EMILI



Sustainable Packaging

With Manitoba Environmental Industries Association (MEIA), Food & Beverage Manitoba, Bioscience Association Manitoba (BAM), Canadian Manufacturers & Exporters (CME Manitoba), and Supply Chain Canada

- Promote the need for and opportunities to develop a sustainable packaging ecosystem
- Ensure financial viability for sustainable packaging
- Improve infrastructure and capacity to enable rapid adoption of sustainable packaging



Artificial Intelligence

With Tech Manitoba and Economic Development Winnipeg (EDW)

- Establish a clear digital identity for Manitoba, which highlights AI, to foster the conditions necessary for businesses and people to thrive
- Drive shared outcomes through the collaboration between industry, academia and government
- Increase integrated skills development and relevant training to enhance career opportunities



Research & Development Pillar

Connecting people with resources

In response to needs that were raised by industry at Engagement Tables, MI-AP held several events to facilitate connection and awareness of available resources and research expertise.

Show Me the Money is a 'Pecha Kucha'-style event where organizations and government departments and were given 5 minutes to present their funding and support programs to industry, academia and interested parties.

Show Me the Innovation: In addition to four funding presentations, on-location tours were conducted at the University of Manitoba's Dairy Farmers of Manitoba Discovery and Learning Complex, Red River College Polytech's Technology Access Centre for Aerospace and Manufacturing, and Canadian Mennonite University's Centre for Resilience.



Event	Funding and Support Presentations	Research Presentations	Attendance
AIMday Kickoff	6	5	106
AIMday Heavy Equipment and Vehicle Manufacturing	4	5	58
Show Me the Money - Northern Manitoba Sector Council	21	0	85
Show Me the Money - Canadian Manufacturers and Exporters	15	0	75
Show Me the Innovation	4	16	28

MI-AP opened the door for Manitoba Construction Sector Council (MCSC) and their industry partners to pursue the development of four technologies in construction micro-credentials in partnership with Red River College Polytechnic and encouraged discussions with government, industry, community, and educational institutions on the development of an action plan for sustainable construction. The collaboration between academia and industry has been an invaluable resource to advance the modernization of the construction sector.

- Carol Paul, Executive Director, Manitoba Construction Sector Council

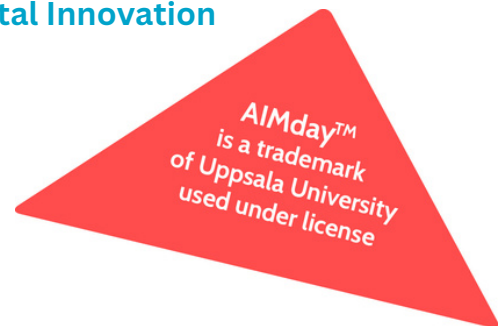
AIMday

Academic-Industry Meeting Day (AIMday), originally developed by Uppsala University in 2008, has been implemented by MI-AP to meet Manitoba-specific industry challenges by matching companies with multidisciplinary academic experts. The goal was to create new collaborations that drive innovation. MI-AP then provided successful partnerships with pre-study funding opportunities. Principal Investigators spend this funding on the advancement of research collaborations with their industry partners to discover solutions that address the proposed research and development question.

AIMday stands for Academic Industry Meeting Day. Specific questions raised by companies formed the meeting day agenda. MI-AP then matched these requests with the academic expertise from Manitoba's nine accredited post-secondary institutions. The meeting day format comprised of several 'one question, one hour' workshops, where teams of approximately 5 to 10 industry members and researchers sat around a table to discuss each topic.

To date, MI-AP has hosted 6 AIMdays:

1. Digital Agriculture
2. Heavy Equipment and Manufacturing
3. Construction
4. Sustainable Protein
5. Circular Economy
6. Digital Innovation



AIMdays 2020-2023	1	2	3	4	5	6	Total
Companies participated	4	6	7	8	10	7	42
Company representatives	8	18	15	15	16	11	83
Questions discussed	6	7	12	16	8	8	57
Researchers and research staff	27	19	16	38	27	13	140
Pre-study proposals submitted	12	8	11	10	8	4	53
Pre-study proposals funded	8	5	11	10	6	2	42

AIMday Pre-Study Recipients

MI-AP has successfully funded 42 pre-study research projects, with partnerships spanning over 6 post-secondary institutions and 21 companies.

Some of the project topics included:

- Biodegradable packaging material using waste product from Moringa process
- Cold weather building practices and design
- Community-driven data centre in remote communities
- Cost-effective and precise measurement of rainfall in agricultural settings on 5km grid
- Developing the business case for the transition of heavy diesel vehicles to electric
- Effects of oat dietary fiber in gut microbiota function, and other health benefits
- Energy efficiency for First Nations
- Manitoba's preparedness to sustain pulse industries with devastating and long lasting diseases
- Near-Infrared Reflectance Spectroscopy (NIRS) as a cost-effective tool for measuring soil data for driving variable rate applications of agro-chemicals on Canadian farms
- Overcoming barriers and challenges associated with consuming insect protein
- Protein quality of a novel blended cereal using wild rice and hemp
- Reduction of fertilizer inputs by targeting protein quality rather than yield
- Solutions to predictive maintenance in the aerospace sector
- Strengthening waste markets to close the loop in Manitoba
- Sustainable materials in concrete specifications
- Technology and data use to build precision ranching
- Utilizing technology to complete difficult building inspections

42

pre-study
research projects

6

post-secondary
institutions

21

companies

Pre-Study Achievements

Researchers were surveyed as to their top pre-study achievement enabled by their funding award. These research goals and achievements varied widely, and while some pre-study projects are currently underway, others have completed full research studies with notable advancements and outputs.

Achievement List (completed and/or projects in progress):

- Creation of one-day drone workshop open to students and industry.
- Development of a custom soil moisture and rain measuring sensor, powered by a solar panel and able to upload data through a satellite network.
- Development of robust and time-efficient signal processing methods to provide clear and accurate location of dowel/tie bars for pavement.
- Identification of barriers to electrifying major components of the runway sweeper.
- Increased insights of barriers faced in implementation of zero-emission vehicle technologies for heavy duty freight vehicle applications.
- Increased understanding of key components related to entomophagy launched in food and beverage markets.
- Optimization of fertilizer application to achieve high gluten quality while minimizing fertilizer input.
- Synthetization, prototyping and evaluation of new software and accompanied hardware to facilitate planning and operation of auto-guided snow removal machines.

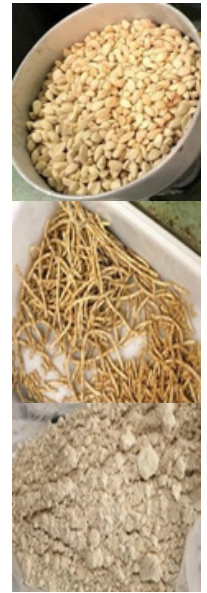
AIMday pre-study achievement highlights

AIMday question: *How do you extract and isolate functional novel seed protein ingredients and bioactive peptides?*

Principal Investigator & Institution: Rotimi Aluko, Richardson Centre, University of Manitoba
Company Representative & Company: Mulualem T. Kassa, BioTEI Inc.
AIMday Circular Economy

Topic: Protein isolation from Moringa

- A literature review was completed and a grant application was developed for research funding. One post-doctoral fellow was hired as a result of pre-study funding.
- BioTEI has commercialized the use of Moringa seed oil, but wishes to realize its potential as a quality protein source.
- The research focus will be developing an aqueous process that will efficiently wash the moringa seed meal to remove the glucosinolates (which cause a bitter flavour), while preserving the protein quality and functionality.

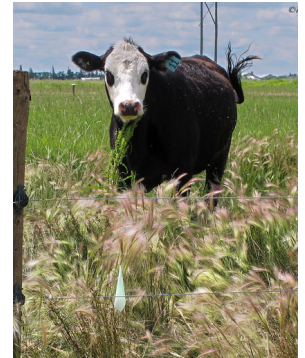


AIMday question: *How do measures of productivity, ecosystem services, and soil health compare between permanent perennial forage stands, no-till diverse cropping systems with short term perennial stands in rotation, and continuous annual monoculture crops?*

Principal Investigator & Institution: Rafael Otfinowski, University of Winnipeg
Company Representative & Company: Mary-Jane Orr, Manitoba Beef and Forage Initiatives Inc.
AIMday Sustainable Protein

Topic: Monoculture crops

- Pre-study funds helped launch an important discussion related to knowledge gaps related to beef production in Manitoba. The team of researchers from the Universities of Brandon, Manitoba, and Winnipeg met with the industry partner and livestock producers to discuss gaps in knowledge related to the management of salinity in rangelands.
- The team produced an early draft of the research proposal and is ready to seek external funding for research project.
- The research will aim to characterize rangeland plant communities and associated endophytes along a gradient of soil salinity.



AIMday question: *How can we improve the energy efficiency of electric buses so that we can increase the driving range of the bus with the same battery capacity?*

Principal Investigator & Institution: Jojo Delos Reyes, Red River College Polytech
Company Representative & Company: Kirk Burcar, New Flyer
AIMday Heavy Equipment and Vehicle Manufacturing

Topic: Electric bus efficiency

- The pre-study funds and collaborative work resulted in multiple projects that New Flyer included in their R&D roadmap.
- Improving the energy efficiency of electric buses to increase their driving range while using the same battery capacity involves understanding the bus energy usage and system loss. The experiment seeks to understand the e-bus insulation materials heat flow and identify cabin areas with significant air leakage, which will be used as a guide for selecting alternative heat sources and innovative insulation materials.
- The team applied for and was awarded funding through the NSERC CCI Applied Research and Technology Partnership Grant



Experiential Learning & Work-Integrated Learning Pillar

Post-secondary institutions are equipping students through a variety of career-boosting learning experiences, such as paid co-ops and internships, research projects, and mentorship programs. Known as "experiential learning" or "work-integrated learning" (or EL/WIL), these experiences are a valuable addition to regular in-class learning. The overall aim of this pillar was to develop a coordinated provincial framework, led by the PSIs, that allows for unified definitions of WIL, better alignment with industry needs and federal WIL descriptors, and permit more funding opportunities for PSIs. These will invariably provide students with valuable experience and connections to employers in their chosen field of study, while also giving employers access to new talent and innovative ideas.

Project Charter

In February 2021, a project charter was developed to outline the goals, expectations, objectives and deliverables.

Definitions & Categories

We conducted an environmental scan to identify the current status of EL/WIL as well as the gaps. Definitions were needed for consistent internal high-level understanding amongst the PSIs in Manitoba. This involved cross-jurisdictional research and consideration of the Co-operative Education and Work-Integrated Learning (CEWIL) Canada definitions for (non)alignment purposes.



Engagement Tables

We held two Engagement Tables (Nov 17, 2020 and June 10, 2021) with a diverse group of stakeholders which included provincial and federal government, sector councils, chambers of commerce, industry associations etc.

Coordinated Approach

We led a collaborative process to discuss and develop a strategy for a streamlined, central intake for employers, students and PSIs.

Consultation with Companies: Barriers Identified

- There is lack of clarity about existing opportunities and processes.
- Individual companies typically connect through a known contact at a post-secondary institution. If there is no pre-existing relationship, there is often confusion about where connect.
- Definitions and outcomes for EL/WIL are inconsistent among PSIs.
- Definitions hold more value to the academic institutions than the employers. Using employer language is critical for EL/WIL communication.
- Industry wants WIL placements to match their specific needs.
- There is a skills gap in students for some WIL placements.
- The funding requirement is a problem from some companies.
- It was noted that essential human skills need development.

Experiential learning has a multitude of benefits across the spectrum of stakeholders. Employers have an opportunity to increase their brand awareness, contribute to the development of their future talent and meet and attract that future talent pool to their workplace and sector. We've heard from companies that PSIs need to work collaboratively to provide a more unified approach to experiential learning, which would allow for increased engagement by the employer community.

- Gail Langlais, former Director of Career Services, University of Manitoba; and former MI-AP EL/WIL committee member

Manitoba Experiential and Work-Integrated Learning High-Level Categories



Research Projects: Research that can occur in workplaces, on campus or community

Examples of CEWIL Definitions alignment include Research Projects

Examples of MB PSI alignment include Applied Research and Community Engaged Research (CER).

Academic Program-Based Placement: Workplace activities that are often required for the completion of an academic program, where they practice the discipline or program-specific competencies and receive academic credit

Examples of MB PSI alignment include Co-operative Education, Internships, Laboratories, Field Experience, Program Based Placements, Mandatory Professional Practice, and Problem-Based Learning (PBL).

Examples of CEWIL Definitions alignment include Co-operative Education, Internships, Industry Projects, Field Placement and Mandatory Professional Practicum/Clinical Placement



Work Experience: Provide experience in a workplace or simulated workplace setting related to the student's field of study and/or career goals

Examples of MB PSI alignment include Campus Integrated Learning (CIL) and On Campus Student Employment.

Examples of CEWIL Definitions alignment include Industry Projects and Entrepreneurship

Service Learning: Community Service Learning (CSL): Integrates community service and critical reflection to enrich the learning experience and strengthen communities

Examples of MB PSI alignment include Community Engaged Learning (CEL) and Service Learning.

Examples of CEWIL Definitions alignment include Service Learning



Apprenticeships: An agreement between a person (an apprentice) who wants to learn a skill and an employer who is willing to sponsor the apprentice and provide related practical experience

Examples of MB PSI alignment include Apprenticeships.

Examples of CEWIL Definitions alignment include Apprenticeship

As UCN works with employers and students of northern Manitoba, we increasingly see the importance of work-integrated-learning. Students benefit as the praxis of theory and skills becomes apparent in the function of the workplace. And, through WIL, employers find employees with critical skills and, importantly, fit and future in their businesses. MI-AP has helped us to see an education and employment scenario where we need not explain WIL as a method because it is simply the way that many students seamlessly enter the worlds of work and education at the same time.

- Rob Penner, Associate Vice-President, Community and Industry Solutions, University College of the North

A Coordinated Approach

With the direction of the MB PSI EL/WIL Committee, the MI-AP EL/WIL Operations Committee has identified steps forward to facilitate collaboration across the province.

Some of these steps are further consultation with companies, adoption of industry language, a communication strategy for PSIs to promote and expand existing EL/WIL opportunities to employers, and a possible webpage or portal to link all PSI EL/WIL programs.

The EL/WIL Operating Committee investigated what other jurisdictions are doing to elevate EL/WIL opportunities and identified a single, shared platform for industry and PSIs as a valuable mechanism.

The PSIs, Economic Development Winnipeg (EDW), and MI-AP had conversations about how industry users would navigate a web portal to access the type of student placement that fits their needs. Depicted here is an example of a flowchart which allows easy navigation through a series of questions on the PSI side. After completing the questions, the employer would receive a list of contacts within the relevant PSI programs that meet their criteria.

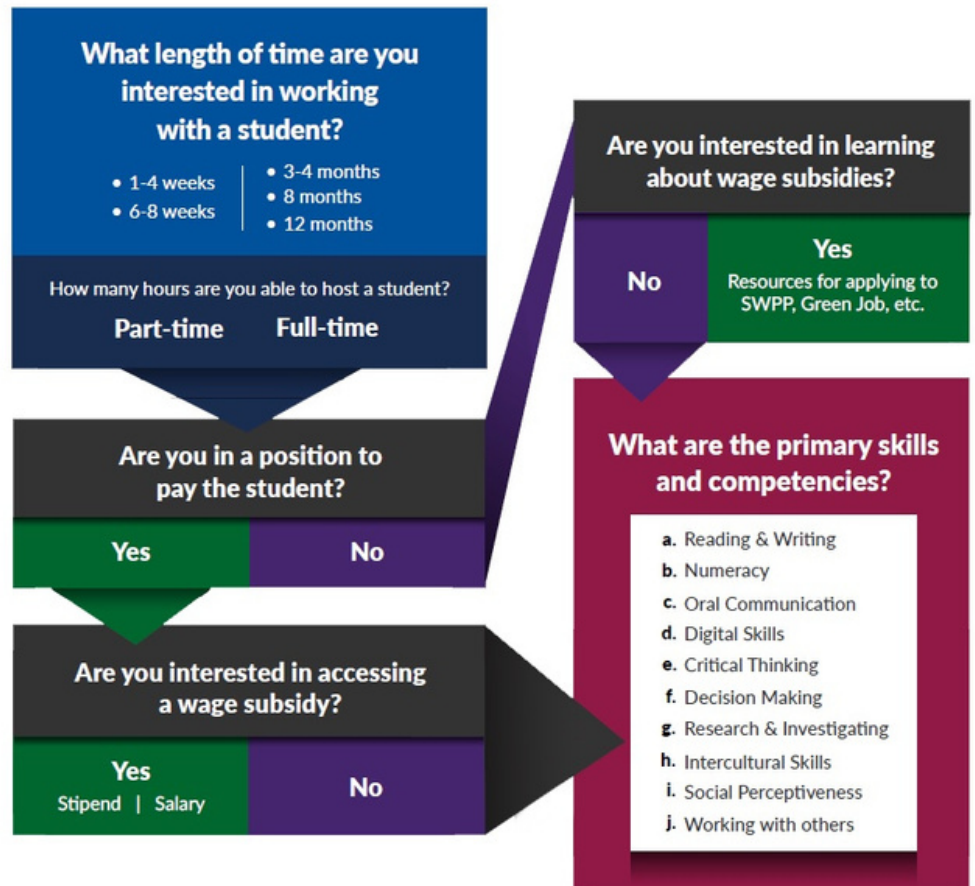
What kind of organization are you?

- Government department/unit
- Social enterprise
- Large sized business
- Medium sized business
- Public sector
- Non-profit
- Small business

- 0 Management
- 1 Business, finance and administration
- 2 Natural and applied sciences and related
- 3 Health
- 4 Education, law and social, community and government services
- 5 Art, culture, recreation and sport
- 6 Sales and service
- 7 Trades, transport and equipment operators and related
- 8 Natural resources, agriculture and related production
- 9 Manufacturing and utilities

What next?

The MI-AP EL/WIL Operations Committee, over the period of three years, laid the groundwork for future developments. The work of a newly formed Manitoba PSI-wide EL/WIL committee will carry this work forward for the benefit of Manitoba's PSIs, employers, and students.



Indigenous Pillar

The Horizon Report, developed by the PSIs and the Business Council in 2019, identified the priority to "Collaborate to Advance Indigenous Education and Employment". In relationship with the Manitoba Collaborative Indigenous Education Blueprint, MI-AP worked in partnership with Indigenous communities, government and business, towards significantly increasing Indigenous students' participation in the post-secondary sector and in the labour market.

Key meetings:

Leaders in Indigenous Education Engagement Table, March 25, 2021

Leaders in Indigenous education identified the benefits of a coordinated provincial approach to provide consistency in support for Indigenous students, to reduce service gaps, and address systemic barriers and work towards meaningful change. To be successful the coordinated province wide approach must:

- Be built on input from Indigenous Post-Secondary students / recent alumni addressing the reality of the Indigenous Post-Secondary student experience.
- Be a wholistic, multi-faceted approach to supports that effectively address the barriers Indigenous students face.
- Colonial institutions need to be onboard in recognizing and rectifying systemic issues of racism, inequality and disparate access to services

Indigenous Student Roundtable, March 17, 2022

The Indigenous Student Roundtable posed the following questions:

- What would you like to see changed for current and future Indigenous students?
- What can post secondary institutions do to enhance supports for students while they transition (before), attend (during), and upon completion (after) of their post-secondary education?
- What can post secondary institutions do to enhance support for remote/online learning?

60 students participated through group discussions or written feedback.

"As a result of student engagement in the process, we continue to use the feedback to inform our work with students. We have created a - Réseau des Aînés - of 5 community Elders who are available for student learning in classes and courses as well as with campus events. This has been a great addition to our beginning work."

-Deborah Radi, Indigenous Lead for Reconciliation and Indigenous Education and Secretary of L'Université de Saint-Boniface

Community Economic Development Engagement Table, October 28, 2021

The CED brought Academia, Industry, Sector Councils, and Indigenous Community members together to ask what role Manitoba's post-secondary institutions and industry partners can play in advancing community's economic development visions? Three key themes recurred in every discussion: Focusing on knowledge about the community needs, creating local opportunities and creating a pathway for Indigenous students. For all sectors to move forward in collaboration with Indigenous communities' initiatives must be built on input from Indigenous post-secondary students and their communities. Employment opportunities must come from within communities ensuring appropriate programs are being offered to meet the needs. Colonial institutions need to recognize and rectify systemic issues of racism, inequality, and disparate access to services.

Cultural Educators Collaborative Roundtable, May 12, 2022

Hosted in Gimli, this event was facilitated by Denise Tardiff and Christine Kampen Robinson. Grandfather Wanbdi Wakita started the day with a prayer and words of wisdom. The purpose of this event was to bring cultural educators from around the province together to inform the Safe Spaces environmental scan of the good work already happening in Manitoba. This has led to a subsequent roundtable to be held later in February 2023.

"Thank you, MI-AP, for being the wave for what I think is fair to say, is a really historical event. I think there are not many times in history, that this many leaders are in one circle across industry and the Indigenous community development ecosystem."

-Noah Wilson, Futurpreneur Business Development Manager and Co-Chair of Truth and Reconciliation Advisory Council for The Winnipeg Chamber of Commerce

Horizon Ecosystem Map

This initiative brings us one step closer to fulfilling the commitment of Manitoba's Post-Secondary Institutions to the development of a coordinated provincial approach that supports students throughout their academic journey in a culturally appropriate, relevant, and needs-based way. By mapping the entire ecosystem of supports, this resource, launched on March 14, 2022, will simplify access to available programs, help eliminate duplications and identify opportunities for needed services.

Horizon is designed with student needs in mind and can be easily searched in two ways: by organization/institution, or by specific need.



<https://horizon.miap.ca>

“In keeping with Indigenous ways of knowing and being, this model is structured in a wholistic way based on the hierarchical nature of need fulfillment. It accounts for the impact of intergenerational colonial practices, resulting in socio-economic marginalization which necessitates unique service delivery for our Indigenous students.”

-Denise Tardiff, Manager
Manitoba Collaborative Indigenous Education Blueprint

Website Analytics

Our goal for Horizon is for it to become a trusted resource Indigenous students and student support teams go to with regularity for information that facilitates exponential and holistic student success.

There have been 9,686 pageviews on Horizon encompassing 1956 users. The average duration of visits on our site is four minutes. Horizon currently has 1429 total entries, with 66 pages of content.

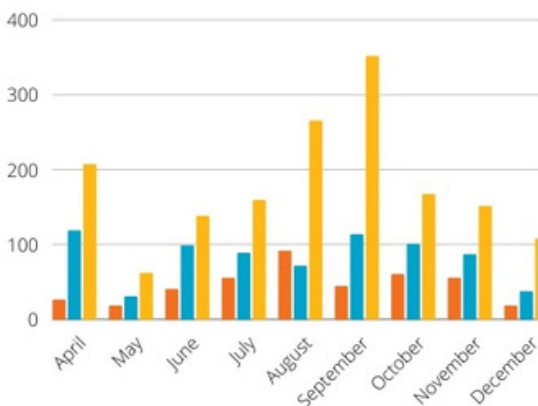
Horizon Web Resources Users



1956
Total
visitors



1429
total entries
on Horizon



1 X 7 day
Horizon users who
visit once a week



1 X 14 days
Horizon users who
visit twice a month



1 X 28 days
Horizon users who
visit once a month

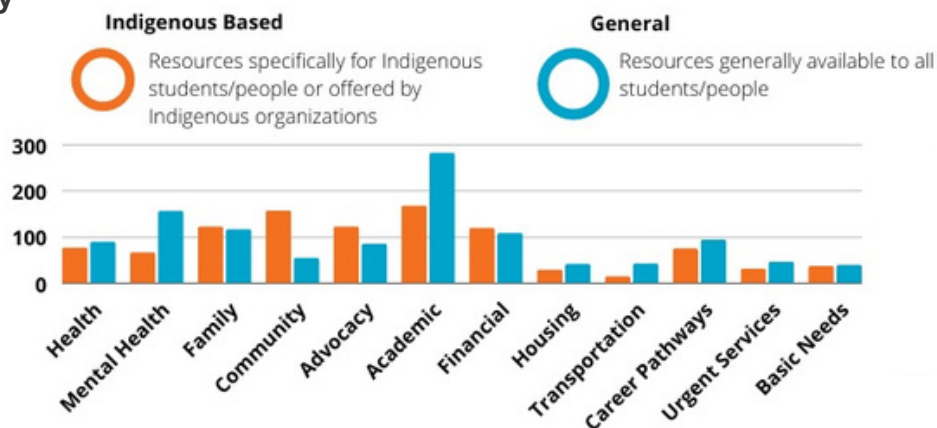


“For me, Horizon is really a game changer. It is going to save a lot of time each work day, that is going to help me help more students and that is really what I’m passionate about.”

-Terri-Lynn Anderson, Indigenous Student Resource Navigator, Red River College Polytech

Horizon Resources by Category

Horizon can be used to help identify gaps in resources available to Indigenous student. For example, we can see the numbers of available supports are lower for housing, transportation, urgent services and emergency services. There are also less Mental Health supports that are culturally specific/safe.



The Horizon website will be handed over to the Manitoba Collaborative Indigenous Education Blueprint (MCIEB), who will continue to maintain the site for the benefit of all Indigenous post-secondary students as well as student advisors.

Safe Spaces Training:

from cultural awareness to cultural competency

Safe Spaces is a dual track, Cultural Competency training program designed to create culturally safe workplaces for Indigenous work-integrated learning students and new graduates.

Working with Manitoba's business community in the spirit of reconciliation, this program imparts the importance of understanding how the historical context of colonial, assimilationist policies and ongoing systemic racism are directly related to contemporary barriers and the current Canadian climate of Indigenous-industry labour relations.

This provides employers with the knowledge required to implement initiatives that truly create substantive equality for Indigenous students/employees and engenders the kind of lasting organizational change in workplace culture required to meet strategic engagement, recruitment, and retention goals.

Tandem student training employs lived experiences to explore the impact of intergenerational trauma on soft skill development and to equip Indigenous students and employees with practical tools to navigate the North American business world.

In addition to specifically responding to the TRC's Calls To Action 63. III. and IV. , 92. III. , and 93, cultural competency training can help Manitoba's post-secondary institutions and industry partners provide safe work placements for the Indigenous students in their charge. Clearing the way for successful transition to employment.

“Safe Spaces provided a supportive environment which allowed me to deepen my learning, explore new concepts and ask the questions that one may otherwise be afraid to ask in most learning environments. The knowledge gained and exploration of ideas continues to be an asset that I gained during my time in class and continue to lean on.”

- Michael van Wyk, HR Business Partner, Robinson Supply



Manitoba Industry-Academia Partnership

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of Manitoba

CONTACT

Manitoba Industry - Academia Partnership

410 - 100 Innovation Drive
Smartpark Innovation Hub
Winnipeg, MB R3T 6A8

Ph. 431.373.8511

Email: info@miap.ca

find us on LinkedIn, Twitter, Instagram