







# BUSINESS PLAN

2021-22

Amended





An agency of the Government of Ontario





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# Science North 2021-22 Business Plan: A Roadmap to Recovery Introduction

The COVID-19 pandemic has had an unprecedented impact on science centres around the world. Ontario's attractions and agencies, including Science North, have been particularly impacted by the significant decline of the tourism industry. Science North's 2021-22 Business Plan sets out a path for the organization to continue to achieve the priorities and goals of its 2018-23 Strategic Plan and its Mandate, albeit with altered strategies and projections as it travels the road to recovery from the impacts of the COVID-19 pandemic. To maintain its vital role as an anchor for economic growth, tourism, job creation and culture in Northern Ontario, Science North will capitalize on its strengths and opportunities and overcome challenges. The organization's resources will be focused to benefit its audiences and clients, partners, stakeholders and funders, with a lensed on providing value and meeting the expectations of the Government of Ontario.

Continued uncertainty of the Pandemic, the roll-out of vaccines and their impact on the general population, and Science North's ability to return to more normal operations all have an impact on this Business Plan. Actions and projections are based on what is known or can best be predicted at this point in time. The one certainty about the COVID-19 pandemic is that it has caused, and likely will continue to cause for the foreseeable future, significant challenges. The impact of the pandemic so far has been dire, and everything from duration of the second wave, to audience concerns in the face of 'recovery' and beyond, makes projections about the future of Science North's performance challenging to calculate.

The Science North Board and staff are up to the challenge of recovery with a focus on:

- resuming operating two of Canada's largest science centres, Science North and Dynamic Earth,
- returning to be an economic engine for Northern Ontario,
- driving tourism activity for communities we serve,
- creating must see visitor experiences, like Go Deeper and Seasons of the North,
- being one of Canada's largest exporters of science based travelling exhibits for clients internationally,
- partnering with attractions throughout Northern Ontario to grow their attendance and contribution to their economies,
- working with Indigenous audiences in First Nation communities,
- developing new education programs that support teachers and students at home and in the classroom,
- reinvigorating outreach and northern initiatives.

This Business Plan provides an update on progress made in 2020-21, as well as planned activities and targets for 2021-22, recognizing that the COVID-19 pandemic will likely continue to impact the Centre's attendance, particularly from its core audiences including tourists, and its earned revenue including its international sales. In developing the Business Plan, Science North conducted extensive internal and external research (see environmental scans in appendix A) and developed action plans to build on opportunities, mitigate challenges and continue to realize the priorities and goals of the Strategic Plan. The Ontario Government's mandate for Science North is the underpinning of both Science North's Strategic Plan and its annual Business Plan, and the Centre's priorities, goals, key performance indicators and resources are in alignment with this mandate.



During this time of uncertainty, Science North commends Minister MacLeod for her leadership since the pandemic began, including her eleven Tele Town Hall meetings with Heritage, Sport, Tourism and Culture Industries stakeholders to support and inform of strategies to mitigate the impact of the pandemic on the Ministry's agencies and attractions, and her advocacy for these sectors with the Government of Ontario.

To sum up, prior to the Pandemic, Science North was on track to exceed performance measures in many areas, especially in serving its audiences and partnering with communities in Northern Ontario to drive economic benefits - contributing to the double bottom line. Over the years, Science North and Dynamic Earth have had the following impacts:

- Over 11 million admissions. Science North has grown to become Canada's 2nd largest science centre and Dynamic Earth is the 8th largest.
- Plays a significant role in bolstering the local, Northern and provincial economies.
- Contributes to the economy by attracting tourists, creating jobs, creating products for international markets and supporting community development across Northern Ontario.
- Operations and the visitor spending it generates, support 660 direct and indirect jobs each year.
- Has an annual economic impact of \$55 million and, since opening in 1984, has had a \$2 billion impact in Ontario.
- Helps bolster the local economy of communities across the North through sharing resources and expertise with partner attractions to provide exhibits that increase attendance and revitalize the attractions.
- Has become a science centre for all of Northern Ontario, with its Science Festivals, exhibits, summer science camps, outreach programs and other activities reaching over 110,000 people in more than 100 communities in 2019-20, including 35 First Nation communities.

This Business Plan leverages the Province's "Ontario Staycation" theme as the underpinning to its focused strategy and recovery.



#### **Mandate and Vision**

#### Mandate

Science North is governed by the Science North Act. The Centre is an operational enterprise with a mandate in five key areas:

- depict to the public and conduct a program of education throughout Northern Ontario in the origins, development and progress of science and technology and their relationship to society; (Northern Ontario programs and services)
- operate and maintain a model mine; (earth sciences centre, Dynamic Earth)
- collect, develop and exhibit objects and displays and maintain and operate a museum, science centre and related facilities for the furtherance of the objects of the Centre; (the science centre at the Bell Grove site)
- stimulate the interest of the public throughout Northern Ontario in matters depicted by the Centre; (Northern Ontario mandate)
- develop, produce and market exhibits and sell exhibits and provide consulting services. (international sales)

#### **Our Vision**

We will be the leader among science centres in providing inspirational, educational and entertaining science experiences.

#### **Our Purpose**

We inspire people of all ages to be engaged with the science in the world around them.

#### **Our Professional Values**

We are accountable, innovative leaders. We have respect, integrity and teamwork.

#### Governance

Science North is governed by a Board of Trustees appointed by the Lieutenant Governor in Council. The Board manages the affairs of the Centre by establishing policy and strategic priorities. The Chief Executive Officer directs the operation and administration of the Centre and is responsible to the Board.

#### Link with Ministry of Heritage, Sport, Tourism, and Culture Industries Mandate and Key Strategies

Science North is an agency of the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries. The Ministry is providing leadership in supporting and delivering tourism and cultural experiences to improve the quality of life and promote economic growth for all Ontarians. Science North's Vision and strategic priorities are in alignment with this.

#### Link with the Minister's 2021-22 Mandate Letter

Science North's 2021-22 Business Plan is in alignment with the direction and priorities articulated in the Minister's 2021-22 Mandate Letter.



## **Meeting the Priorities of the Province of Ontario**

Science North plays a vital role as an economic, tourism and cultural engine for Northern Ontario. Science North and Dynamic Earth are the second and eighth largest science centres in Canada, located in the country's 28th largest city. They are large and successful attractions—Science North and its various attractions receive nearly 300,000 annual admissions in a relatively small market of 162,000 people. Moreover, Science North delivers science educational programming, exhibit experiences and events to more than 100 communities across the 800,000 square km territory of Northern Ontario, serving a diversity of audiences including a large Indigenous population. It also produces, sells and leases travelling exhibitions, large format films, exhibits and multimedia experiences to clients around the world. In fact, Science North is one of Canada's largest producers and exporters of science themed travelling exhibitions and one of the few non-profit IMAX film producers in the world.

Science North's 2021-22 Business Plan is based on the Centre's Strategic Priorities and Goals, which are well aligned with its Vision and Purpose and directly supports its Provincial Mandate. The Business Plan focuses on the road to recovery from the impact of the COVID-19 pandemic, with a focus on diversity and financial sustainability to accomplish changes and renewal that will increase attendance and revenues, attract tourists and increase their length of stay. Partnerships with communities across Northern Ontario will help stimulate tourism development and visitation, that has been severely impacted by the pandemic and provide programming to under-serviced regions, First Nation communities and many remote communities.

#### **Driving Economic Development and Job Creation for the North**

Science North plays a significant role in bolstering the economy through tourism and job creation. As the single largest tourist destination in Northern Ontario, prior to COVID-19, approximately 110,000 tourists visited the science centre sites on an annual basis, generating significant economic impact through spending on a full range of tourism services such as hotels, restaurants and retail outlets. The impact of visitors to the region and Science North operations annually has sustained more than 650 jobs and generated \$90 million in economic benefits (based on Economic Impact Study by TCI Management Consultants in 2015).

From 2021 to 2023, Science North will aim to invest \$36 million in projects to create new visitor experiences for its science centres and partner attractions in Northern Ontario. These projects will increase visitor levels, and inject \$49 million in direct and value-added economic benefits to the province. They will also create 174 FTE jobs during project implementation, according to the Ministry of Heritage, Sport, Tourism and Culture Industries TREIM.

#### **Promoting Tourism in All of Northern Ontario and Supporting Community Development**

Science North's attractions in Sudbury, with the Centre's renowned unique style of visitor experiences, contribute to making Northern Ontario an internationally-recognized tourist destination of choice, attracting visitors and visitor spending and bringing tourists back to the region again and again.

Science North works with partners in the private sector and in Northern communities to develop and implement exhibit experiences, programs and events that enhance tourist offerings in communities across the North. Sharing the Centre's expertise and resources with partner attractions revitalizes these attractions and increases their sustainability. Installations of permanent and touring exhibit experiences at these venues attract new visitors and encourage repeat visitation, and support community development in the North's smaller towns and cities.



Science North will continue to expand the network of partner communities and attractions and private sector partners across Northern Ontario. New collaborations and deepening existing relationships will bring new science experiences to communities and re-energize northern attractions, particularly as part of the recovery from the impact of COVID-19.

#### **Providing High Quality Cultural and Educational Experiences for Northern Ontarians**

The need for Science North's innovative science programming, which showcases and reflects Northern Ontario's cultural and natural features, is great across the North. Opportunities to engage in meaningful cultural experiences enrich the quality of life for residents and contribute to vibrant and livable communities. This is especially important across Northern Ontario, where the many rural and under-serviced communities have limited access to these kinds of experiences. This includes many remote First Nation communities in the Far North.

In non-pandemic times, over 100,000 people in more than 100 communities, including more than 30 First Nations communities, take part annually in Science North's programming such as Science Festivals, outreach programs and exhibit experiences. Permanent installations such as *Northern Nature Trading* and *Northern THINK Hubs* bring experiences and equipment to people in their own communities that they would otherwise not be able to access.

#### Diversifying the Economy Through World-Class Products that Appeal to International Markets

Science North is one of Canada's largest producers and exporters of science exhibits and shows to clients around the world. Science North continues to expand its global profile through its external sales, multimedia productions and travelling exhibitions.

The Science of Guinness World Records, the 13th travelling exhibition produced by Science North, opened at Science North right before the science centre shut down in March due to the COVID-19 pandemic. Following its run at Science North, the exhibition was scheduled to begin its five-year North American tour. Science North continues to work with Ripley Entertainment and our clients to re-launch the tour later in 2021 or 2022.

Science North is working with Dr. Jane Goodall on its 7th large format film production, an IMAX film called Jane Goodall's *Reasons for Hope*. It will draw audiences to the Centre in late 2023 with remarkable success stories in environmental conservation. Production of the film will support the growing film industry in Northern Ontario through a robust mentorship program. The film will be leased to IMAX theatres worldwide and is projected to be seen by millions of viewers.

Science North will host the Montreal Science Centre's full-size *Indigenous Ingenuity* exhibit in March 2021; the exhibit will be at the Thunder Bay Art Gallery following this, supported by Science North. Science North will develop a customized version of the exhibit to begin touring Northern Ontario in 2022. This customized exhibit will showcase Indigenous historic and contemporary innovation and will be enhanced with a full program of showcase events and educational opportunities. Science will work closely with its Indigenous Advisory Councils and a newly formed Indigenous working group to ensure that diverse, Indigenous knowledge, perspectives and people from Ontario are represented accurately, respectfully and in a culturally appropriate manner. This authentic and inclusive exhibit will bring people together to recognize and celebrate Ontario's diversity, tradition and heritage while honouring the significant contributions of Indigenous peoples toward making Ontario the best place to live in and visit.



The production of travelling exhibitions and films is good for the Ontario economy. They heighten the awareness Internationally of Northern Ontario as a desired travel destination, attract visitors to the science centres, they support economic development and job creation, and their leases generate earned income to support Science North's sustainability. Science North has successfully collaborated with the Ontario Science Centre to develop two travelling exhibitions, *Beyond Human Limits* in 2018 and *Wild Weather* in 2016. Science North's award-winning object theatre about climate change has been one of its most successful export products. The third version of this popular show, the *Climate Action Show* will have an official launch at Science North in April 2021, and will be a strong, and timely, product for sales to international clients. Contracts for duplicate of the show for the Science Centre Singapore and Hong Kong Science Museum have been secured and will be delivered in Summer 2021.



### The Road to Recovery: Science North's Contribution to the Double Bottom Line

#### **Driving benefits for the Northern Ontario Tourism Industry**

The tourism industry in Northern Ontario has been decimated by the COVID 19 Pandemic. While the number of cases in Northern Ontario have been less than other parts of the Province, the closure of the Canada / US Border, the reluctance of visitors to travel and the concern for public safety, have all dramatically impacted this sector. Businesses have closed, attractions have suspended their operations and thousands of tourism industry workers have been laid off or lost their jobs.

Science North is well positioned to support this sector in its recovery – it has strong connections with varied groups throughout Northern Ontario, it works with many diverse tourism partners, it has a track record of over-delivering on events and activities. It can lead in the recovery of tourism in Northern Ontario.

Prior to the COVID pandemic, the tourism industry supported tens of thousands of jobs and contributed millions to the Northern Ontario economy. Science North is confident in its ability to lead the return of the industry to similar double bottom line levels.

An investment by funders in a coordinated and strategic series of activities to drive hyper-local tourism and work with the private sector in the recovery of this industry will be welcomed by communities, partners, stakeholders and businesses.

#### **Supporting Teachers and Students**

In response to the challenges to education posed by the COVID-19 pandemic and in support of ensuring that Ontario's students are competitive and leading on the world's stage in terms of transferable, foundational skills and academic achievement, Science North could deliver high quality, scientist-led online and in-person STEM experiences for Ontario students and teachers from K to grade 12. Digital workshops and inquiry-based lesson plans, virtual science centre visits and professional development opportunities for Ontario teachers will help bridge the learning gap resulting from school closures, providing science, financial literacy and digital skills resources that will support blended learning, at home and in the classroom, for a potential 2 million+ Ontario students and 16,000+ teachers during the 2021-22 school years.

Science North has a strong track record with funding from the Ministry of Education in supporting teachers and students and continues the delivery of curriculum linked resources. Funding would support this work, leverage existing expertise and allow Science North to expand its services and programs.

#### **Exporting Made in Ontario Media Products**

Science North is one of Canada's largest exporters of Science themed travelling exhibits and other multimedia visitor experiences. Since the mid 90's, Science North has generated more than \$75.0 million in revenues from selling its products and expertise to clients in North America. This export activity has generated more than 450 person years of employment, supported the work of 20+companies in Ontario and positioned Science North's reputation as a leader in the science centre/museum field.

The COVID pandemic has had devastating impacts on most science centres and museums globally. Attendance has significantly declined which has affected Science North's ability to market and sell exhibits and services.



At the same time, these attractions are anticipating a post COVID recovery and will be looking for products and services to reengage their audiences and communities.

With additional support, Science North could market and sell its travelling exhibits, multimedia products and other visitor experience as part of a recovery strategy for clients worldwide

#### **Developing Tourism Products with Northern Partners**

Sustainability of attractions in the North is linked to the capacity to change and renew. Most have limited capacity to achieve this goal. In 2015, Science North was able to secure funding to create a pilot experience of touring a travelling exhibit in 5 community locations. It was successful in growing attendance and generating economic benefits for these partners.

This was expanded in 2017-2018 with additional funding. It included the permanent installation of visitor experience in 6 locations across the North. These are developed by Science North but operated by partner attractions. It's a model that works in growing attendance, generating an element of renewal and creating tourism benefits.

Science North has the capacity to grow its collaboration with partner attractions to develop high quality and engaging experiences. This includes leveraging other visitor experiences it has or will be developing for its attractions in Sudbury to benefit attractions and communities throughout the North.

This would increase the viability and impact of attraction, would make them more sustainable and contribute to job creation and economic development in communities across the North.

#### **Promoting Mental Health Wellness**

The COVID-19 Pandemic has and continues to take a toll on the mental health and well-being of Ontarians. Mental health is a positive sense of well-being - the capacity to enjoy life and deal with the challenges we face. Mental health impacts each and every one of us. We all have mental health, just as we all have physical health. Over a lifetime, everyone will have challenges to their mental health, but not all will experience a mental illness. This can affect us personally, our extended families, and those in our workplaces. Despite their prevalence, mental illness does not yet have the same support systems as other illnesses, and stigma still exists. Science North has the capacity and expertise to develop a travelling exhibition on Mental Health and Addictions. The goals for the exhibition would be to:

- Dispel myths to help reduce stigma, increase knowledge, and bring awareness to the general public.
- Provide a safe space for visitors to learn about mental health and addictions.
- Identify the intersection between mental health and addictions.
- Allow visitors to paint their own mental health and addictions story through engaging exhibits.
- Provide visitors with the resources in their own communities.



The exhibit could tour the Province and become an important element in the recovery of our Province

#### **Leadership Development in Tourism Sector**

For the past 8 years, Science North has led an executive leadership program and worked with ten local organizations on a "made in Northern Ontario" solution to develop skills and grow the talent pool within our respective organizations. More than 125 participants have completed the Northern Leadership Program (NLP) a year-long program.

In this period of uncertainty with challenges and continued impacts of the pandemic, leadership qualities like resiliency, innovation, problems solving, communicating, motivating are critical to leading strong organizations.

Science North's NLP has proven its approach to expanding and improving the leadership base in Greater Sudbury.

A custom, focused version of this program could be delivered throughout Northern Ontario and become an important initiative to make companies, attractions and communities more resilient and help in their recovery.



## **Strategic Directions**

Science North is Northern Ontario's most popular tourist attraction and an educational resource operating the second- and eighth-largest science centres in Canada. Science North's attractions include a science centre, IMAX® theatre, Planetarium, the F. Jean MacLeod Butterfly Gallery, special exhibits hall and Dynamic Earth: Home of the Big Nickel. Science North provides science experiences throughout Northern Ontario including outreach to schools and festivals, summer science camps and more, and has a permanent base in Thunder Bay supporting an increased presence in all of the Northwest. Science North's International Sales unit develops exhibits and shows for sale to science centres, museums, and other cultural institutions all around the world.

Science North's previous Strategic Plan primarily focused on continued growth based on the organization's past experiences and successes. Science North will continue to do that, but in its 2018-23 Strategic Plan it has also modified its approach, focus and culture to ensure future growth and stability in new areas with new experiences and service approaches. Significant advancement is required in a number of areas to realize Science North's Vision of being the leader among science centres in providing inspirational, educational and entertaining science experiences. These requirements are reflected in Science North's 2018-23 Strategic priorities and goals.

Science North's 2020-21 and 2021-21 Business Plan align with the following Strategic priorities and goals that are part of Science North's 2018-23 Strategic Plan:

# **Strategic Priority 1: The Leader in Science Engagement Goals:**

- Visitor experiences inspire and WOW our visitors
- Our science is current and driven by collaborative partnerships

# **Strategic Priority 2: Science North in all of Northern Ontario Goals:**

- Science North is vibrant and active in all of Northern Ontario
- Expanded and deepened engagement with Indigenous audiences
- Significant growth in teachers and students involved with science

# **Strategic Priority 3: Ultimate Customer Journey Goals:**

- Our Brand is compelling and recognized
- We are a must-see destination that draws new and repeat visitors
- Our surroundings impress

# **Strategic Priority 4: Awesome Organizational Culture Goals:**

- Our people are empowered to achieve our Vision
- We build amazing leaders
- Innovation is the norm

# **Strategic Priority 5: Financial Resilience and Growth Goals:**

- An organization with exceptional financial performance
- Increased philanthropic appeal and funding
- Increased grant revenue and diversification
- Double international sales



### 2021-22 – Strategic Priorities and Goals and Performance Measures

Science North's 2018-23 Strategic Plan has five Strategic Priorities that support the achievement of Science North's Mandate and its Vision "to be the leader among science centres in providing inspirational, educational and entertaining science experiences." There are 15 Goals that support the achievement of these priorities. Each Goal is driven by Actions with specific targets. As part of its annual Business Planning, Science North reviews its Actions, modifies them as required, and develops new major tasks (sub actions) as well as targets (performance measures) that will drive results for the organization that align with the Strategic Plan.

The following are the 2021-22 Business Plan action plans and targets for each Strategic Priority and Goal.

### Strategic Priority #1

### The Leader in Science Engagement

Science North and Dynamic Earth engage people of all ages in a wide array of Science, Technology, Engineering and Math (STEM) experiences that ignite experimentation, critical thinking and a sense of wonder. A creative and ever-changing palette of exhibits, multimedia shows, workshops, activities, programs, events and other experiences are developed and delivered annually.

The effects of the COVID-19 pandemic continue to have impacts on the Centres' abilities to deliver the engaging science experiences it is recognized, well-known for and celebrated. Adjustments have been made to the timing of projects, as well as types of experiences delivered, recognizing reduced attendance and requirements for safe operations. In addition, in the previous fiscal year, Science North was able to shift it's experiences and focus on its digital presence and connections with audiences, partners and communities virtually. Science North will continue to expand its capacities and abilities to deliver strong engagement and activities online.

The Leader in Science Engagement Priorities' two Goals and supporting Actions focus on creating and delivering rich, new content that showcases current science and engages a wide variety of audiences, partners and stakeholders. The continued delivery of a changed and diverse selection of experiences is crucial to attracting repeat visits and growing the Centres' audience base, achieving attendance and revenue targets. Maintaining a focus on the future opportunities to welcome guests in-person, including the work on the following goals is critical to our long-term success and a key part of Science North's role in supporting the recovery of the tourism industry.

#### Goal #1

#### Visitor experiences inspire and WOW our audiences

Being "The Leader is Science Engagement" defines the visitor experiences at Science North and Dynamic Earth. Visitors of all ages will engage in a variety of new experiences, including the new *Climate Action Show* object theatre, innovative travelling exhibitions and the Phase 1 of the *Go Deeper* renewal at Dynamic Earth.



Action 1	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Deliver innovative science experiences that ignite experimentation, critical thinking and a sense of wonder.	Complete, open and operate the new Climate Action Show object theatre experience to attract new and repeat audiences.  -Capture 10% of daily science centre attendance -Design and initiate Learning Impact Study, measuring commitment to climate action -Capture 700 data points from show tablets to inform research	Official opening on April 22, 2021 Deliver \$835,000 project on budget Research & visitor learning data gathered Apr. 2021-Jan. 2022 Final Climate Action Show Learning Impact Research Report Mar. 31, 2022 Support the sale of the Climate Action Show at the Hong Kong Science Museum (June 2021) and Science Centre Singapore (Aug. 2021), generating earned income for Science North.
	Implement Phase 1 of Dynamic Earth Go Deeper renewal and expansion project, while engaging mining community experts.  -Phase 1 opening in March 2022 will include one above-ground experience: the Sudbury Regreening Story film.  -Underground expansion: Two cycles of reduced operations (Nov. 2021-Feb. 2022) will be required to complete the new Modern Mining Drifts and Underground Multi-Purpose Theatre & Programming Space.  -Cycle 1: Following the pre-feasibility work will involve rock excavation, ground control and infrastructure installations to create the access drift, multi-purpose theatre space and modern mining drifts.  Phase 1-March 2022 -Regreening Film and Epiroc Theatre upgrades	<ul> <li>Plan, fund, design &amp; implement Go Deeper renewal at Dynamic Earth, \$5 million</li> <li>Engage in 4 Go Deeper Advisory Group meetings, focused on the Big Impact multimedia show, Innovation Gallery, Vale Chasm Cage Experience and Project status and funding review</li> <li>Business and Operations Plan assessment completed, by Apr. 15, 2021</li> <li>Underground:</li> <li>Design for underground expansion; geotechnical and cost evaluations, complete project development and design by June 15, 2021</li> <li>Programming Space; design, budget, schedule detailed, by June 15, 2021</li> <li>Secure underground excavation and fabrication external team by Aug. 15, 2021.</li> <li>Complete underground excavation Nov. 1 2021-Feb. 1, 2022.</li> <li>Regreening film:</li> <li>Epiroc Theatre hardware upgrades completed by Dec. 15, 2021</li> </ul>



-Cycle 1 of the underground expansion  Phase 2-February 2023  - Cycle 2 of underground expansion; programs and events in the Underground Multi-Purpose Theatre & Programming Space -Innovation Gallery -Big Impact multimedia show -New Vale Chasm Experience	•Regreening filming April 1-Oct. 1, 2021 •Regreening film final edit, by Feb. 1, 2022
Develop concept for <i>Dark Matter</i> object theatre new experience in Space Place Lab.  Develop three new science partnerships to inform current science content, support in securing funding and deliver this visitor experience.	Plan, fund, design & implement Dark Matter Object Theatre. •Support in securing \$800,000 in funding •Engage with external partners such as SNOLAB, Arthur B. McDonald Canadian Astroparticle Physics Research Institute, CERN, Perimeter Institute, TRUMF, Homestake Labs Visitor Centre and LIP to inform content and help support the development including science content and funding. •Complete concept by Mar. 31, 2022.

Action 2	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Engage diverse groups, cultures and our core audience with relevant, changing science experiences.	•Leverage the <i>Indigenous Ingenuity and Regalia</i> travelling exhibits hosted in Sudbury March 6, 2021-Oct. 31, 2021.  -Achieve 16,160 in attendance -Design, develop and fabricate 100m <sup>2</sup> custom version	Support in securing \$350,000 in funding to support Indigenous Ingenuity exhibit in Sudbury Support the involvement of the Indigenous Advisory Committees in this project Support the work with Indigenous Tourism Ontario (ITO).  Host exhibit at Science North, with additional regional content featured in the exhibition.  Deliver ancillary, culturally-appropriate program of events of science speakers, workshops and programs, together with Northeast and Northwest Indigenous Advisory Groups.
	•Host travelling <i>Under the Arctic: Digging Into Permafrost</i> travelling exhibit at Dynamic Earth, May	•Host exhibit at Dynamic Earth, with additional regional permafrost content featured.



8-Sept. 6, 2021 •Achieve 2,592 in attendance	Deliver ancillary program of events of science speakers, workshops and programs.
•Host Into the Arctic travelling exhibition from Nov. 13, 2021 to Jan. 2, 2022 at Science North. •Achieve 2,788 in attendance	Support efforts to secure funding from partners and funders.  Deliver ancillary program of events of science speakers, workshops and programs, together.
Host Halloween Pumpkinferno only event at Dynamic Earth from Oct. 1-30, 2021 (14 days) •Achieve revenue of \$86,083 and attendance of 7,495 (2% growth over 2020)	•Fund and create change in Pumpkinferno experience through procurement of 2 new sets and augmented lighting (\$60,000 value).
Develop and deliver science events to grow and retain varied audiences, with a focus on adults and students.  •Achieve adult (ages 19+) attendance of 200 through various digital events  •Achieve student (ages 13-18) attendance of 400, through online student engagement initiatives.  •Recruit and engage 15 Student Science Council members, through 10 development sessions.	<ul> <li>Identify and implement opportunities to monetize online programming.</li> <li>Inform and engage new and diverse audiences, particularly adult and student audiences.</li> <li>Implement Student Science Council, as planned, with 9 online meetings.</li> <li>Deliver one online student engagement initiative connecting students to Ontario college and university science and engineering programs.</li> <li>Deliver 2 online adult events, with attendance of 100.</li> <li>Host Wild and Scenic Film Festival-virtually, with 50 attendees.</li> <li>Deliver 3 Star Parties tied to Indigenous Ingenuity Event Plan, with attendance of 50 adults.</li> </ul>

Action 3	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Inform new science experiences through research, evaluation and prototyping.	•Prototype and build a new exhibit, while collaborating with visitors.	•Secure and assemble Beluga whale skeleton, with Northeast Indigenous Advisors, by March 31, 2022, as a legacy exhibit from Indigenous Ingenuity.
	•Deliver prototyping experiences in Prototype and Fab Lab to enhance the exhibit development skills for postgraduate science communication students.	•Engage with Science Communication Masters student registered in the Communicating Science through exhibits course in the Prototype and Fab



Lab, Jan.1-March 31, 2022.  •Have students participate in the FabLab badge program to deliver on augmented prototyping and testing of 4 new exhibits.

#### Our science is current and driven by collaborative partnerships

Science North's external partnerships have grown through stronger STEMM engagements nationally, led by the science team. Building on the successes and opportunities presented by the COVID-19 impacts of 2020-21, continued science communication strategies, particularly within digital platforms, will focus on health sciences tied to epidemiology related content, Indigenous science, climate change, and mining and earth sciences. Harnessing the power and reach of current science content being presented digitally and live online, the science team will increase the content and reach of powerful science engagement.

Action 1	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Showcase and communicate current science, research and innovation.	•Initiate 1 partnership with an external science organization to create a new visitor experience concept showcasing current science research, driving interest from audiences and increasing attendance completed (to be completed by March 1, 2022.)	Partnership and topic to be selected by Nov. 1, 2021 Visitor experience concept by March 1, 2022
	•Identify and engage with 1 new Citizen Science project that includes science data gathering by Science North staff and engages 300 unique participants.	•Butterfly Count every weekend from May 1-Sept. 5, 2021 •Participate with national citizen science project with partners at <i>Exploring by the Seat of Your Pants</i> and <i>BackYard Bio</i> •Submit results and data to iNaturalist and North American Butterfly Association, by October 31, 2021



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Develop and implement science content to support digital strategy; on all social media channels-Facebook, Instagram, Twitter, TikTok, YouTube, Science North website.  •120 science social media posts •19 Bluecoat Talks •12 Jenn Learns episodes	Support in developing a science/marketing quarterly calendar of science content and strategy for inclusion in social media channels Provide science social media liaison for Dynamic Earth and Science North. Develop and deliver 5 Vale Bluecoat Talks focused on mining and earth sciences. Deliver 14 Bluecoat Talks, based on a bi-weekly schedule. Complete 8 social media posts with collaborative science partners. Deliver re-launched Jenn Learns Series, 1 episode monthly.
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Action 2	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Develop and activate a science partnership strategy.	Implement deliverables from Science Partnership Strategy. •Complete 4 new visitor experiences (exhibit, workshop, or speaking event) delivered by Scientist in Residence, in Sudbury or Northern Ontario, by March 31, 2022 to showcase current science.	•Deliver on Science Partnership Strategy goals and outcomes.
	•Host 1 'Scientist in Residence' at Science North or Dynamic Earth biannually that connects the organization to science research organizations, augments the visitor experience around current science, and supports in building new skills within science program team.	•Identify the 'Scientist in Residence' for 2022-2023, by December 15, 2021.
	•Host an Honorary Life Member event with 100 attendees, raising \$7,500 to support new visitor experiences.	•Develop and host event in Fall 2021 with Development team, supporting achieving attendance and revenue targets.



Action 3	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Expand our collaborations within the Science Communication Graduate Program.	•Actively participate in jointly delivering and operating the Science Communication Diploma and Master's program, with Laurentian University, to 10 students annually and \$20,000 in revenue.	•Co-Supervise one Thesis Science Communication Master's project •Teach and support in the delivery of 2 courses
	•Engage Science Communication Diploma and Master's program graduates in science centre operations.	•Offer 8-week volunteer placement/internship opportunity for one graduate student, annually.
	•Together with Laurentian University, deliver the pilot Science Communication Skills for Northern Ontario Post-Secondary STEM Researchers Summit	•Develop and host a prototype workshop with 10 Science North staff and Laurentian faculty to test the activities and solicit feedback from members of our target audience.
	•Deliver in-person and virtual training events in August 2021 that will empower more than 60 post-secondary STEM faculty and researchers in Northern Ontario to learn effective science communication.	<ul> <li>Deliver 2-day onsite SciComm Training Workshop at Science North and Laurentian University, featuring 6 learning modules.</li> <li>Deliver 1-day Virtual SciComm Training Workshop.</li> </ul>

## **Strategic Priority #2**

#### Science North in All of Northern Ontario

Prior to the emergence of the COVID-19 pandemic, Science North's presence across Northern Ontario continued to grow and was at an all-time high, making Science North the science centre for all of Northern Ontario. In recent years, more than 100,000 people in over 100 Northern communities engaged annually in programs and events such as school outreach, public workshops, weeklong science camps and Science Festivals. Each year, more than 8,000 people in over 30 First Nation communities participated in school and public outreach programming. Partnerships with other attractions created sustained Science North experiences such as Northern Nature Trading and Northern THINK Hubs, helping to revitalize partner attractions in Northern communities and increase their attendance all year long. Science North's base in Thunder Bay provides an important presence and engagement in Northwestern Ontario.

COVID-19 has and will directly and dramatically hinder the ability to achieve in-person elements of this strategic priority in 2021-2022. This said, the Education and Northern Programs unit, with the industriousness, creativity and flexibility of the entire organization will continue to support teachers and students across the province with curriculum-based resources that will assist in delivering STEM and curriculum concepts in the classroom, at home, or in a blended or synchronous learning environment. Opportunity has emerged from the pandemic, providing the conditions to develop new products, projects and revenue streams for Science North in service of education and our priority to be Science North in all of northern ontario. Examples of such opportunities that will continue to inform actions 2021-2022 are STEM kit production and distribution, expanding e-workshop and e-learning delivery across Ontario, Summer Learning at Home, direct-to-classroom virtual learning packages, and a reimagined board membership



program. Science North will continue to work with community partners and school boards to deliver as much in-person programming as the pandemic will allow, and will be well-positioned to increase in-person delivery and allow for school visits as demand increases.

Science North is also working with tourism industry partners across Northern Ontario to secure funding and deliver a series of community-focused and private sector linked programming in support of the recovery of the tourism industry across the North.

Despite the obvious challenges, the three goals of this priority remain focused on continuing to grow an even stronger presence across the North by being engaged, participatory, and contributing to economic growth and job creation in all of Northern Ontario.

#### Goal #1

#### Science North is vibrant and active in all of Northern Ontario

During 2020-21, Science North will maintain nimble capacity to deliver COVID proof informal science learning experiences across Northern Ontario through school and public outreach, experiences to support partner attractions and expansion of Science Festivals. Strong partnerships in Northern communities will support the initiatives, while adhering to Public Health restrictions and recommendations. In mid-2020, Science North's Board of Trustees received the Northwest Expansion feasibility study/opportunity assessment report and unanimously accepted that subject to securing funding, it supports the next phase of this project that will include the schematic design of facilities and visitor experience, final operating and business plans. This work will continue as funding permits.

Action 1	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Deliver informal science	•Deliver 17 (10 in the Northeast, 7 in the Northwest)	•Market virtual experiences to public outreach clients.
learning experiences outside	public outreach programs via a virtual portal (pre-	•Create and develop highly engaging live shows that
the science centres and	recorded or lives shows) to Northern Ontario	translate well through video.
throughout Northern Ontario	communities	
		•COVID plan in place to ensure safety of all
	•Deliver summer science camps in 15 different	participants.
	communities across Northern Ontario through a	Seek out funding support to delivery of camps
	combination of virtual and in person science	•Establish new partnerships outside of camp window
	opportunities representing 1000 registrations.	to continue to build on Science North brand and relationships for children in Northern Ontario with the
	<ul> <li>Science North will partner with 2 other organizations</li> </ul>	support of the Laamanen Fund.
	to deliver informal science opportunities in Northern	
	Ontario for children (ie. Autism Ontario)	



eniors, adults, teens and/or toddlers) in Northern ntario communities	•Move to a fully virtual Nerd Nite platform •Thunder Bay Science Festival will become a virtual event, with 80% of events offered virtually and 20% offered in person (if safe to do so).
	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
orthern Ontario communities of Sault Ste. Marie, enora, North Bay and Thunder Bay engaging 10 000	•Work with Northern partners to develop virtual experiences. •Build partnership team in Kenora and Thunder Bay. •Secure \$10,000 to support these festivals
orthern Tour customized exhibit and activities in 5	•Explore, assess, develop and deliver new impactful experiences with partner organizations in Northern Ontario.
ay, attracting 5,000 visitors.	Support in securing funding for <i>Indigenous Ingenuity</i> exhibit in Thunder Bay and 2-year Ontario tour of custom version.
dentify and develop new long-term partnerships for digenous Ingenuity Northern Tour for up to 20 mmunities across Northern Ontario.	develop 100m <sup>2</sup> Indigenous Ingenuity exhibit •Explore, assess, and develop new impactful experiences with partner organizations in Northern Ontario.
orthern Ontario THINK Hub visitors to reach 5000 npressions. Deliver 4 NNT video challenges to engage NNT adders, reaching 5,000 impressions.	<ul> <li>Produce Chain Reaction video challenges with Northern host partners.</li> <li>Produce NNT video challenges with Northern host partners.</li> <li>Explore and assess 'meet a scientist' virtual sessions for NNT traders with Northern partners.</li> </ul>
er of oce	eniors, adults, teens and/or toddlers) in Northern stario communities  21-22 Targets  elliver in-person or virtual Science Festivals in 4 orthern Ontario communities of Sault Ste. Marie, enora, North Bay and Thunder Bay engaging 10 000 ople virtually and in person.  elliver The Science of Guinness World Records orthern Tour customized exhibit and activities in 5 orthern Ontario communities to 1,950 people (15% original estimate of 13,000).  elliver 600m² Indigenous Ingenuity exhibit in Thunder by, attracting 5,000 visitors.  esign, develop & fabricate custom travelling version 100m² Indigenous Ingenuity exhibit entify and develop new long-term partnerships for digenous Ingenuity Northern Tour for up to 20 mmunities across Northern Ontario.  eliver 4 THINK Hub video challenges to engage orthern Ontario THINK Hub visitors to reach 5000 pressions.  eliver 4 NNT video challenges to engage NNT ders, reaching 5,000 impressions.



Action 3	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Pursue actions based on recommendations from the Northwest Expansion Feasibility Study	Secure funding     Plan and Implement schematic design work.

#### Expanded and deepened engagement with Indigenous audiences

With more than 104 First Nation communities and 100,000 self-identified Indigenous people in Northern Ontario, Science North has continued to increase its presence in First Nation communities through school and public events. Prior to COVID-19, there was a strong demand for hands-on science programs in First Nation communities, and years of working together have built trust between First Nation communities and Science North. It will be important to replace in-person activities with new opportunities such as e-workshops, teacher training, provision of STEM kits and other innovative methods. In locations where outside visitors are once again permitted, programming in First Nation communities in 2021-22 will include live outreach in-school and/or outdoor science, e-workshops and public outreach programs, by request. Indigenous Advisory Committees in the Northwest and Northeast will help to build partnerships, provide feedback on program ideas and help Science North to understand the needs of First Nations audiences. These committees will further inform the development and delivery of a robust, culturally-inclusive program in support of the Indigenous Ingenuity exhibit.

Action 1	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Engage Indigenous students and their teachers in science experiences	•Deliver 2 school program days in FN high schools and reach 600 students.	•Create COVID-friendly science shows and activities that can be safely delivered to First Nation students in secondary school.
	•Deliver 15 e-workshops in First Nation schools to 300 students.	Build upon partnership with Connected North to continue offering e-workshops to Indigenous communities.



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	•Deliver 4 teacher workshops for educators teaching in First Nations schools.	<ul> <li>Seek funding opportunities to deliver these at no cost.</li> <li>Continue to work with Education Council partners to develop virtual opportunities to deliver these.</li> </ul>
Action 2	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Deliver science experiences in First Nation communities.	•Deliver 10 programming days of informal science program experiences in 5 First Nation communities.	<ul> <li>Continue to seek funding to expand the Summer Science Days program.</li> <li>Create COVID safe programming and activities that can be offered to First Nation communities.</li> </ul>
Action 3	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Build relationships and partnerships to enhance science learning in First Nation communities.	•Engaged and active participation from FN leaders and communities	*Leverage Indigenous Advisory Committees. Continue to build upon partnerships already made. *Develop new opportunities to work with existing and new partners. *Develop and implement culturally-appropriate experiential program plan for <i>Indigenous Ingenuity</i> exhibit.

#### Significant growth in teachers and students involved with science

Prior to the emergence of the COVID-19 pandemic, Science North planned to involve a significant number of students and teachers in science and technology programs, in-person, over the next fiscal year, in both French and English. With the onset of the pandemic, Science North, in partnership with Ontario Science Centre, quickly developed a proposal for the Ministry of Education to support remote teaching and learning while schools remained closed. With this funding, Science North developed videos, lesson plans and activities geared to elementary school teachers and their students and hosted these on Science North's education website. The result was unprecedented reach across the Province with over 6,000 unique users, mostly teachers, accessing the resources, representing over 150,000 students. Science North has since further partnered with the Ministry to deliver coding teacher workshops and also submitted a follow-up proposal that would further extend this reach and support teachers and student-learning in class or at home, depending on Public Health circumstances. Science North piloted a summer learning support package for Northern Ontario school boards and this quickly sold out, generating additional revenue and the potential for a new education product. In 2021-2022, Science



North will continue to leverage this demand to better serve teachers and students through the production or relevant and timely materials through the development and sale of virtual learning packages for schools, summer learning at home packages, and through ongoing e-workshops and teacher training events. As a result, it is expected Science North's reach through education programming will remain strong.

Action 1	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Develop and deliver science experiences to students in Northern Ontario communities.	•Deliver outreach programming in Northern Ontario to 5,000 students, 10 days in the Northeast and 10 days in the Northwest.	•Shift to delivering programming outdoors (outdoor science shows). •Create, package and market Classroom STEM kits.
	•Deliver e-workshops to 7,000 students(summer target = 1,000 students, school year target = 6,000 students).	Create, market and deliver e-learning experience packages for summer learning programs across Northern Ontario . Create, market and deliver e-learning experience packages for the school year across Northern Ontario.
	•Achieve 5,000 student engagements with live stream experiences.	•Create, market and deliver a monthly live streamed science show for students to engage with.
	•Achieve student attendance targets at Science North attractions as follows: Science North – 2,300 Dynamic Earth – 900 IMAX – 800 Planetarium – 100 Camp-ins - 50	Create and deliver outdoor science experiences for students. Create a covid friendly atmosphere with limits of schools that can attend any given day, and the creation and modification of programs to respect all guidelines.
	•Award 500 certifications to SHSM (Specialist High Skills Major) students.	•Create, market and deliver a combination of live in person and live online certification programs for SHSM students.
Action 2	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets



Engage teachers through professional learning experiences and science resources.	•Deliver 3 three-day teacher summer learning programs attracting 45 teachers.	•Create, market and deliver 3-day professional learning sessions for teachers during July and August.
	•Deliver 23 teacher professional learning sessions with teachers, reaching 350 teachers through live Professional learning sessions.	•Create, market and deliver live in person and live online teacher professional learning sessions for Ontario teachers.
	<ul> <li>Reach 4,000 page views with Science North's online educator resources.</li> <li>Build partnerships with 2 organizations to link Science North online resources with their memberships.</li> <li>Develop 12 new lesson plans for online resources.</li> </ul>	•Position Science North as an important resource for teachers across Ontario by expanding our resource site content and maximizing it's reach through partnerships.
	•Deliver an online professional learning conference for 200 teachers in April 2021.	•Create and test an online professional learning conference for teachers of Northern Ontario.
Action 3	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Build and leverage relationships with the broader educational community.	*Develop 1 new partnership with an organization that is leading in building 21st century digital skills for students.	



•Conduct needs assessment to identify gaps and opportunities for the development of new or enhanced programs, or a pilot project proposal.	<ul> <li>Actively participate with SELO (Science Education Leaders of Ontario), STAO (Science Teachers Association of Ontario) and CASC (Canadian Association of Science Centres) education groups to determine needs of schools from a provincial level and explore strategies to fill gaps while learning about best practices in education.</li> <li>Develop and maintain strong relationships with science education leader groups to determine needs and explore strategies to fill gaps and learn about best practices in education.</li> <li>Work with Destination Northern Ontario to explore potential to utilize Science North as a cornerstone in developing a student group travel program.</li> </ul>
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# Strategic Priority #3 Ultimate Customer Journey

Science North's customer journey is more than just a part of a singular transaction or experience – it encapsulates the full experience of being a Science North customer, from online engagements to onsite visitors at Science North and Dynamic Earth and program participants. Given the challenges created by the COVID-19 pandemic, a focus on customers will be a key success factor in our success. The customer journey begins prior to customers arriving onsite or engaging digitally with Science North. Awareness of the Science North brand is crucial to attract visitors and keep Science North at the top of their list of "must-do experiences". When people visit Science North and Dynamic Earth, they should feel welcomed, comfortable and inspired. Once visitors have enjoyed Science North's experiences, world-renowned Bluecoats and appealing surroundings, the ultimate goal is to drive repeat visitation to maximize earned revenue.

The Goals and Actions for this strategic priority focus on a compelling, must-see destination with impressive surroundings that provide the ultimate, exciting and experiential customer journey.

#### Goal #1

### Our Brand is compelling and recognized

In response to COVID-19 restrictions, the digital content strategy has successfully shifted into regular programming that engages, informs and entertains Science North's online audiences across all platforms. As Science North continues to welcome onsite visitors, we will continue to build on the success of this digital strategy, while enhancing Science North's brand awareness as Science North engages with new audiences locally, provincially and beyond. Continued communication with the Centre's members and the public with surveys and participant-based content provide data and information to align with visitor behaviours and needs. Showcasing and demonstrating informal science learning through relevant video formats that are delivered across all digital platforms provides visitors with real, tangible experiences that enhance trust when engaging with the



Science North's brand and properties.

Action 1	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Develop and implement a	•A 5% increase in brand awareness based on	•Execute Brand Audit by August 2021.
powerful, creative approach for	established measures from brand audit execution	
Science North's Brand platform to deliver consistent marketing	that will drive attendance and increase sales.	•Continue to focus on online presence with established programming "Bluecoat Talks", new
communications.	•Increase brand awareness by 6-8% through 'Bluecoat Talks' and online content and engagement across all social platforms	programming based on 2021 specialty exhibits and new platforms (TikTok).
	(Facebook, Instagram, Twitter and introduction of TikTok).	•Meet scheduled content deliverables on a monthly basis.

Action 2	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Create and implement digital content to improve engagement with our audiences.	<ul> <li>Achieve 50% engagement on Facebook through surveys [50% of survey respondents engaging with Science North via Facebook – increase of 3%].</li> <li>Achieve 42% engagement with SN members and 'Insider' Enews subscribers from surveying results [42% of survey respondents are Insiders – increase of 4%].</li> <li>Achieve 3% engagement with digital analytics on Facebook/Instagram/Twitter [increase over industry standard of 2%].</li> <li>Achieve target of 2,700 total reviews across multiple platforms (Trip Advisor, Google Reviews, Facebook, TikTok)</li> </ul>	<ul> <li>New trends, new technology, new social or web platforms to support and share our messaging.</li> <li>New social programming delivered weekly that focuses on audience engagement and communication with relevant topics.</li> <li>Partnerships with local and provincial organizations-OSC/CASC/LU.</li> <li>Monthly Enews delivering communications, promotions and special offerings for programming.</li> </ul>



Action 3	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Leverage Science North's Community Relations Plan with timelines as described in plan.	•10% renewal of free memberships distributed in 2020/21 to families in need through the Sudbury Charities Foundation	Create a revised membership structure which focused on families in need, and explore potential for corporate sponsor support
	•Provide access to Science North Camps to 100 underprivileged children through Science North's Laamanen Fund.	Establish baseline of Laamanen funding available.      Work with partners across Northern Ontario to fill
	•Track and measure effectiveness of providing Science North facilities for use by not-for-profit groups to a retail value of \$15,000.	funded camp openings.  •Formalize process and evaluation for facility access to not-for-profit groups.

#### We are a must-see destination that draws new and repeat visitors

In response to the COVID-19 pandemic, actions for 2021-22 will continue to focus on maintaining Science North's memberships, streamlining the online ticket purchasing process and maximizing potential onsite business revenues.

Action 1	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Implement personalized approaches through our customer relationship management system that drives loyalty and brand ambassadors.	<ul> <li>Review and renew membership packages and offerings to better align with the current climate increasing membership revenues by 13%.</li> <li>Engage members and local community</li> </ul>	<ul> <li>Research best practices in industry Compare value of membership pre-COVID to post-COVID.</li> <li>Consider a portion of the membership classified as a donation.</li> </ul>
	influencers to become Science North Ambassadors and social media Influencers – Goal of two families and two individuals, with a target of four social media communications/posts.	•Launch a targeting campaign to all lapsed memberships.
	•Re-welcome 40% of lapsed members back to Science North.	•Establish ambassador and influencer strategy and activation plan to secure four families in 2020-21.
Action 2	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Offer customized packages that meet our audiences' needs.	•Clearly identified ticket packages that are market tested and with identified revenue and attendance targets for each package offer, generating a total	•Audit current ticket package offerings, including customer focused market research. •Identify underutilized assets to produce new package



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	of \$100,000 in revenue.	offerings.
	•Gather baseline data from customized packages to establish annual goals.	•Establish ticket packages based on visitor and market results.
Action 3	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Develop and enhance tools that provide a more customized visit for our audiences.	<ul> <li>Drive better results and efficiencies with CRM, point of sale and online purchasing system:         <ul> <li>Target 1: total of 6 internal leads/champions trained in CRM system (sales, finance, development, marketing, Education(camps), Science Program (research), with each lead establishing best practices for their respective areas.</li> <li>Target 2: Fully integrate upgrades to online point of sale system to create efficiencies in online purchasing, improve and streamline visitor online purchasing experience</li> <li>Target 3: Utilize CRM/POS for camp sales</li> </ul> </li> <li>Select recommended visitor tracking tool by March 2022.</li> </ul>	Comprehensive review of the current system including surveying visitors.  Establish key business requirements across the organization and goals as it relates to a CRM.  Research and evaluate onsite visitor tracking tools to understand behaviours and support business and strategic decisions  Develop and implement new tools to accurately measure visitor satisfaction.

#### **Our surroundings impress**

Science North and Dynamic Earth's buildings, facilities and grounds must meet or exceed customers' expectations to ensure that new visitors become repeat visitors. In 2021-22, Science North will strive to impress visitors by extending operations on the grounds, enhancing the entrance experience and making green initiatives an operational priority. A key to the success of this goal is capacity to fund and implement capital renewal for the 22,300 square metres of physical assets at Science North and Dynamic Earth. With limited funds, there is a growing gap in the conditions of these assets and the annual investments in their renewal.

Action 1	2021-22 Targets	Major tasks (sub actions) that will be undertaken
		in 2021-22 to achieve targets
Create a welcoming entrance	•Refine scope and develop a tiered-approach of	internal working group to revitalize plans to date
experience (Science North) that	welcoming experience (from Paris street to Lobby)	and establish scope.
inspires and engages our		<ul> <li>Work with a third party to evaluate and</li> </ul>
visitors.	<ul> <li>Implement 3 new quick wins to make the lobby/</li> </ul>	conceptualize a master plan.
	main entrance a more welcoming experience.	•Secure funding.



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•Engage with internal and external partners for idea generation.
generation

Action 2	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Add elements to our grounds	•Enhance outdoor programming offered	<ul> <li>Research options and possible offerings.</li> </ul>
that enhance the experience for	throughout the year to draw 6,400 visitors	•Develop plan of events per season.
all who are on site (pavilion,		<ul> <li>Properly market outdoor activities.</li> </ul>
marketplace improvements,	<ul> <li>Add an iconic structure/ experience to the</li> </ul>	•Identify key project and location.
etc.).	grounds showcasing a must-see destination.	<ul> <li>Work with local groups to leverage community</li> </ul>
-		involvement.

Action 3	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Install renewable energy projects and operational practices that are impactful and recognized.	<ul> <li>Activate climate action communication by increasing Sheepy's (main character in the show) brand awareness through SN's website (Green sub-page including a solar panel energy production dashboard), and social media strategy and platforms-including one monthly Green content post on social platforms.</li> <li>50% of Climate Action Show visitors taking the 'Commitment to taking Climate Action' pledge, via show tablets.</li> <li>Achieve net-zero greenhouse emissions in Reasons for Hope IMAX and Regreening film productions, as measured through Albert Tool.</li> <li>Reduce the organization's tipping fees by 5% over 2020-2021 figures to measure impact of 3-stream waste management.</li> <li>Research and develop an Environmental and Sustainability Policy for SN attractions and businesses by March 31, 2022.</li> <li>Implement three new operational initiatives implemented per fiscal year (15 by 2023).</li> </ul>	•Review energy audit of all our facilities and identify 3 initiatives to be implemented. •Identify initiatives by June 1, 2021. •Build enthusiasm in staff and visitors to embrace and champion environmental programs and changes to a more sustainable organization.



### Strategic Priority #4

### **Awesome Organizational Culture**

Science North has a compelling Vision and strong organizational culture that seeks to attract and grow talent, inspire employees and drive success. Operating within a COVID-19 pandemic environment, this need has become exponentially more critical with Science North adjusting its talent management strategies accordingly to meet the challenges and needs of both its operations and workforce.

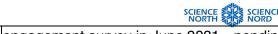
Science North's culture defines "who we are, what we do and how we do it". Actions related to this strategic priority focus on fostering an "Awesome Culture" that reflects high performance, achievement, excellence in leadership and innovation. It is a culture that engages employees, reinforces the Science North brand, wows its visitors and delivers exceptional service each and every day. Aligned with the organization's business goals, this culture plays a key role in achieving Science North's Vision. In a competitive labour market, Science North needs to attract and retain top talent to achieve its goals and objectives.

#### Goal #1

#### Our people are empowered to achieve our Vision

Science North's values are at the core of the organization's culture. Ensuring organizational values are clearly articulated, understood and entrenched in its work will build the foundation to achieve its people priorities. The COVID-19 pandemic continues to pose significant challenges on the Centre's ability to reach and deliver strategic human resources programming. Changes to timing and delivery models will be required in order to pursue new strategies and approaches of engaging and motivating our staff, growing knowledge through expanded partnerships and continuing efforts to foster a spirit of diversity and inclusion throughout the organization. New digitized approaches to orientation, enrollment and employee development shall be at the forefront as greater efficiencies are sought.

Action 1	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Entrench, model and reinforce cultural values	•Effectively onboard and induct new employees to Science North, its values, norm and culture. Measured to achieve an 80% overall satisfaction rating from orientation feedback surveys. •Foster the spirit of diversity and inclusion across Science North through the promotion of EDI information and awareness sessions to be measured through participation rates of sessions and through awareness scores on the employee engagement survey.	New digitized orientation content for more efficient delivery and consistency, including for those out of town staff.  New digitized employee enrollment processes delivered online as part of the HRIS Onboarding module to streamline processes and ensure increased efficiency and data management.  The Equity, Diversity and Inclusion Committee to conduct 12 awareness sessions (1 per month).  The Equity, Diversity and Inclusion Committee to complete an internal review of all HR policies to ensure language promotes equity, diversity, and inclusion.  Launch of organizational employee



Action 4	2021-22 Targets	Major tasks (sub actions) that will be undertaken
Pursue new approaches to grow knowledge, skill and expertise.	•Create greater collaboration with Canadian Association of Science Centres (CASC) to gain insight into new approaches and share ideas and strategies with Science Centre members across the Country.	•Continue to engage CASC HR peer group comprised of senior HR leaders from CASC members across Canada who meet to share common challenges, solutions and innovative ideas.
Action 3	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Align total rewards with changing workforce and business needs.	•Non-compensatory benefits assessed to ensure the organization continues to be able to support staff in light of the COVID-19 pandemic and work structure challenges. Measured through survey and against maintaining pre-COVID turnover rates of 8.5% voluntary and 3.5% involuntary turnover.	•A review and assessment of benefit, wellness, telemedicine and fringe benefit offerings to explore enhanced support opportunities for staff working remotely and to those onsite faced with the ongoing challenges of COVID-19.
Action 2	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
		engagement survey in June 2021 - pending resumption of regular operations.

Action 4	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
service model.	house operations to include principles and standards to be used to guide consistent service	•Delayed due to COVID-19 and shutdown. To resume once operations permit. Incorporate service model training for all food, functions, retail and science floor staff.

#### We build amazing leaders

Leaders reinforce the Science North culture, enable people and deliver business results. Developing strong leaders at all levels is increasingly important as Science North experiences both a wave of retirees and a higher degree of younger staff new to Science North. Strong leaders have the potential to significantly accelerate organizational performance and contribute to high levels of engagement. Science North will build on its Leadership Development strategy to leverage learning and staff development opportunities across the organization. The effects of the COVID-19 pandemic have created significant challenges on the centre's ability to reach and deliver strategic human resources programming. These strategies will be modified in light of the realities of a workforce now largely working remotely to better leverage digitized and more efficient delivery



# opportunities.

Action 1	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Define and articulate principles for our leaders that reflect the Science North culture.		<ul> <li>Establish an online training calendar for the year, incorporating onboarding and orientation schedules.</li> <li>Increased use of LinkedIn Learning regularly across the organization as the primary tool for online skill development.</li> <li>Mentorship/coaching program - one mentorship/coaching cohort offered with a goal of 25 participants.</li> <li>Succession planning - succession plan model to be completed. Ongoing delay of implementation due to COVID-19.</li> </ul>

Action 2	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
expanded Leadership Series and the Northern Leadership Program (NLP).	<ul> <li>Assess and modify NLP program to increase the value, community reach, business model and impact of learning online.</li> <li>Conduct 5 Leadership sessions targeted at leadership competencies and succession planning requirements, with a total of 125 participants.</li> </ul>	•NLP - Review NLP model to focus on creating a virtual, online learning program model with adapted content and facilitation delivery designed to reach a broader geographic client reach. •Leadership Series - Five learning & development opportunities to be delivered fully online as a result of ongoing pandemic health risks and a workforce working both onsite and remotely. Targeted topics on working remotely, planning, resiliency, etc.

Action 3	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
contribution to awesome culture.	• • • • • • • • • • • • • • • • • • •	•Scorecard to be developed and measured in combination with Employee Engagement Survey.



#### Innovation is the norm

Innovation is recognized as the lever through which Science North introduces new products, processes and services to help drive business growth, create competitive advantage and respond to today's customer expectations. Science North will accelerate its innovation agenda by building and maintaining a foundation that supports, finances and drives a culture of innovation. At times such as a pandemic, the requirement for the organization to explore and adapt to new and alternate business lines has created an even greater need for the organization to be as innovative as possible.

Action 1	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
support, finance and drive innovation.	North culture through ongoing development training, discussion and goal setting emphasizing a ground	<ul> <li>Innovation theme incorporated into one Leadership Series offering.</li> <li>Incorporate Innovation goal theme into annual performance management process.</li> </ul>

Action 2	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Champion and celebrate innovative ideas.	•Foster a spirit of innovation across Science North through offering of activities aimed at embedding innovation into organizational culture.	•Staff Innovation Working Group to meet quarterly throughout the year, providing regular updates to staff and exploring engaging ways of promoting innovation across the organization.
	<ul> <li>Successful launch of one Innovation Idea staff competition, with 1 idea selected to be implemented.</li> </ul>	One competition to be delivered from Innovation Workgroup which includes an organizational wide competition to generate ideas on innovative ways to make improvements to existing practices and
	•Successful launch of one revenue generation brainstorm survey to feed into business planning processes.	processes. •One "revenue generating" survey submission launched to promote and explore possible revenue generating ideas from staff across Science North.



# **Strategic Priority #5 Financial Resilience and Growth**

Science North will continue to take a leadership role in ensuring its financial sustainability and resilience in identifying new and sustained growth and development opportunities during challenging economic times. As a fiscally responsible organization, Science North is at a critical point in safeguarding its sustainability given the operating and capital funding shortfalls and increased expenses, and the serious impact of the COVID-19 pandemic on its self-generated revenues. It will need to either secure major investments from governments and/or the private sector, or significantly modify its operations while the tourism sector recovers. In the immediate term, Science North will seek innovative ways to minimize the financial impacts of COVID-19 and capitalize on funding opportunities.

#### Goal #1

#### An organization with exceptional financial performance

Exceptional financial performance will be achieved through ongoing support and education throughout the entire organization related to the evaluation of new and existing initiatives. Science North strives to increase self-generated revenue to offset the current and projected deficits and to deliver on Science North's mandate through its key strategies. The organization will establish sustainable evaluation and reporting systems to support future operating requirements by building on internal education, innovation, improved systems and key performance indicators to support sound financial decisions and increased revenue. In light of the financial challenges and revenue decline experienced and projected due to COVID-19, the requirement for improved financial performance will be key to Science North's sustainability. This will be achieved through systems and financial education across the organization generating self-generated revenues.

Action 1	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
	•Secure \$300,000 in revenue through digital offerings of typically in-person events (example: camps)	Deliver virtual workshops to school groups     Implement means to monetize

Action 2	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Implement and enhance key performance indicator tools to support financial accountability throughout the organization.	•Provide 3 training sessions to enhance financial knowledge throughout the organization.	<ul> <li>Develop training for users to better understand operating financial models; to include operating grant and tie-in with grant cycle.</li> <li>Encourage internal dialogue to include both qualitative and financial metrics</li> </ul>
	•Expand financial reporting to the Board and Business Affairs Committee.	•Research financial reporting models at other organizations.



202	nalize the project's master plan by August 31, 21 and implement at least 3 quick wins by arch 31, 2022.	Complete internal stakeholder feedback sessions.     Research best practice for creative project management.
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Action 3	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Drive operating efficiencies and leverage MHSTCl's investment to increase SN's sustainability.	•Achieve a 3% reduction in hydro and 8% reduction in natural gas consumption at the Bell Grove Site following the implementation of a more effective HVAC system.	<ul> <li>Complete installation of HVAC projects by June 30, 202.</li> <li>Review consumption reports monthly to ensure reductions are realized.</li> </ul>
	•Assess the ROI for all Science Renewal projects and 3 operational initiatives to ensure financial sustainability is achieved all the while delivering on our mandate.	<ul> <li>Review 3 operational initiatives against original targets.</li> <li>Assess benchmark returns for all new operational projects.</li> </ul>

#### Increased philanthropic appeal and funding

In 2021-22, Science North will seek and pursue funding and partnership opportunities to support revised Science North initiatives, such as Science@Home kits and programming throughout Northern Ontario. Through the COVID-19 pandemic, Science North has significantly increased its online content; as such, the organization will leverage this increase to encourage donations from individuals. The organization will also focus fundraising efforts to support the new phase of Dynamic Earth development; including the launch of a capital campaign. Science North will continue to implement an enhanced, comprehensive fundraising strategy.

Action 1	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Cultivate corporate relationships to grow sponsorships and giving programs.	•Achieve corporate sponsorships to deliver programming and achieve \$120,000 net revenue to annual operations.	•Pursue funding and partnership opportunities to support revised Science North initiatives, such as Science@Home kits and programming throughout Northern Ontario.
	<ul> <li>Achieve \$50,000 net annually from naming and exclusivity agreements.</li> <li>Achieve \$60,000 net annually from corporate giving program.</li> </ul>	•Maintain current naming and exclusivity agreements (Beverage exclusivity and catering providers)



		NORTH NORD
	•Secure capital funding to support visitor experience renewal, including securing \$1.2M for the Go Deeper capital campaign.	<ul> <li>Maintain corporate support through corporate giving program with adjustments to corporate member benefits.</li> <li>Launch capital campaign with campaign strategy, strong committee, marketing materials</li> <li>Secure capital funds for new visitor experiences.</li> </ul>
Action 2	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Cultivate individual relationships to grow donations and giving programs	<ul> <li>Achieve \$25,000 annually in restricted donations.</li> <li>Secure \$25,000 in capital exhibit renewal.</li> </ul>	•Implement onsite/online strategies to encourage individual donations, such as Science North's re-imagined Animal Ambassador program, Giving Tuesday and Festival of Trees.
Action 3	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Implement events that maximize net revenue towards our philanthropic financial goals.	•Achieve \$50,000 in net revenues from a combination of fundraising events, including Science North's Annual Bluecoat Ball and Honorary Life Member event. (subject to COVID-19 situation improving)	<ul> <li>Establish an effective model for a fundraising event; i.e. in-person, online, or combination.</li> <li>Enhance 2021 sponsorship appeal and implement changes to operations/auctions to increase net revenue.</li> <li>Maximize all sources of revenues with respect to the 2021-22 event, including potential ticket sales, donations, partnerships, etc.</li> <li>Implement additional philanthropic events that achieve positive net revenue.</li> </ul>
Action 4	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Implement a stewardship and cultivation strategy to build relationships with corporations and individuals.	•Supports achievement of overall philanthropic financial goals.	<ul> <li>Develop and implement a strategy to use Science North's Senior Leaders and Board Members to support the cultivation of past, current and future prospects.</li> <li>Establish an active Fundraising Committee.</li> <li>Implement online, onsite and offsite strategies that identify Science North as a charitable organization (presence in lobby, third party</li> </ul>



	fundraising, etc.).

### Goal #3

### Increased grant revenue and diversification

Science North will continue to build on established and diverse government relationships to seek and build grant opportunities to support its operating and capital requirements, including government grant opportunities that may become available to mitigate the impact of COVID-19. Systems will be put in place to support internal coordination of projects and deliverables to achieve grants targets. The Centre will continue to leverage smart business practices and strong relationships to maximize grant growth.

Action 1	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Support operating, capital renewal and infrastructure needs.	<ul> <li>Secure funding to support Science North programs and services. Achieve government funder commitments of \$1.7 million in operating grant revenue (outside of the MHSTCI operating grant).</li> <li>Secure funding to support visitor experience development. Achieve government funder commitments of \$4 million in capital revenue.</li> </ul>	<ul> <li>Identify organizational needs through regular engagement with internal project stakeholders to strategically match and prioritize projects with potential funding opportunities.</li> <li>Pursue grant programs whose priorities align with Science North's mandate and strategic priorities.</li> <li>Seek out and actively pursue stimulus and recovery funding opportunities that become available due to the COVID-19 pandemic.</li> </ul>

Action 2	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Enhance the grant cycle.	•Engage with funders during each phase of the grant cycle.	•Face to face contact and regular communications with funders to outline upcoming strategic priorities to align with
	•Initiate contact with 100% of funders for unsuccessful grant proposals to gather feedback to be used to develop best practices for future applications.	funding programs, deliver briefing notes during application period, invitations to events and project activities, exceeding funder recognition requirements and ongoing reporting on project success and impact.
	<ul> <li>Deliver annual grants presentation and workshop for key internal stakeholder groups</li> </ul>	•Maintain and enhance grant cycle management



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informed by current best practices, including tools and resources, to enhance learning, encourage engagement and drive quality results.	tools.  •Schedule a minimum of 4 touch points with internal project teams during the grant cycle.
	•Meet quarterly with Finance to review upcoming and active grant projects to enhance financial accountability to funder.
	•Host creative and memorable funding announcements and official opening events for funded projects that give high profile to funders
	•Overdeliver on meeting requirements for final reports, including capturing comprehensive data, photos and testimonials.

Action 3	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Increase approval rates of proposals.	•Achieve success rate of 85% approval of number of proposals submitted	•Conduct and track monthly research into new and recurring grant opportunities.
	•Pursue at least 5 grant opportunities not previously secured to diversify funding requests	•Identify grant opportunities that can be co- applied to for mutually beneficial relationships with new and existing partners.
		•Establish early contact with funders for new grant opportunities regarding program information and eligibility, where possible.

### Goal #4

### **Double international sales revenue**

International Sales remains a significant source of self-generated revenue for Science North, with an overall revenue target of \$1,745,550 in 2021-22. Actions to achieve this target will focus on sales of duplicate versions of existing Science North shows and exhibit experiences. New partnerships will be key to creating new visitor experiences with global appeal, complementing Science North's existing travelling exhibition portfolio and helping mitigate the lost travelling exhibit revenue due to the COVID-19 pandemic. Science North will also seek new prospects outside the traditional North



American science centre/museum market to increase its client base.

Action 1	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Implement action plan to grow external sales in new markets and sectors.	•Achieve \$400,000 in revenue from new sectors and markets.	<ul> <li>Develop and execute a sales &amp; marketing strategy targeted at the new non-traditional markets and sectors identified in 2019-20.</li> <li>Adapt participation to a virtual presence at international conferences to position SN products and services with clients.</li> <li>Pursue funding opportunities to help expand our reach in new markets and sectors.</li> <li>Drive profitability by reviewing sales and project management expenses.</li> </ul>

Action 2	2021-22 Targets	Major tasks (sub actions) that will be undertaken in 2021-22 to achieve targets
Develop and sell products and services to meet market and client needs.	<ul> <li>Sell one modular Nature Exchange visitor experience.</li> <li>Sell \$40,000 in other duplicated experiences.</li> <li>Achieve an overall external sales net profit of \$210,639.</li> </ul>	<ul> <li>Research and develop technological solutions to enhance the value of the Nature Exchange.</li> <li>Develop a business case for an outreach version of Nature Exchange.</li> <li>Create digital versions of Nature Exchange training modules to make available to Science North's Nature Exchange clients for a monthly or annual fee.</li> <li>Develop a catalogue of stand-alone exhibits from Science North that are appealing to clients and profitable to duplicate.</li> <li>Establish partnership strategy to develop new products and services.</li> <li>Develop a sales and marketing strategy for Nature Exchange and Climate Action Show.</li> </ul>

Action 3	2021-22 Targets	Major tasks (sub actions) that will be	
		undertaken in 2021-22 to achieve targets	
Secure partnerships with popular brands	<ul> <li>Support achievement of future travelling exhibit</li> </ul>	Develop a marketing strategy to secure	
for the development and tour	business targets, including \$17,474 in net	new brokering agreements for travelling	
management of new travelling exhibits,	travelling exhibits profit in 2021-22.	exhibit tour partnerships.	
and other innovative products or	•Support achievement of external sales business	Develop strategy to secure new partnership	
services.	targets, \$210,639 for 2021-22.	agreements for development of new,	



innovative products or services.
•Attend and exhibit at conferences for retail,
museum, science centres, and family
entertainment centres etc.
•Lower costs for shipping and installations,
increasing profitability.



## **Highlights of 2020-21 Operational Performance**

The closure of Science North's attractions and operations on March 13, 2020 had a devastating impact on revenues, employment, performance targets and contributions to the Northern Ontario economy. For the four months following March 13, Science North attractions and businesses remained closed to visitors and the Centre grappled with the impacts of the pandemic on its operations and sustainability. Needless to say, business plans that were carefully made and that served as a roadmap for the organization's continued growth and contribution to the Northern Ontario economy were turned upside down by the new reality due to COVID-19.

#### **Attractions**

Following the closure of Science North attractions on March 13, virtual engagement with audiences became vital. The science experiences shifted to include in-person experiences in the days of operation, and extensive growth and focus on online content and delivery, on platforms that included Science North's website, Facebook, Instagram, Twitter and YouTube. Science North launched its live 'Bluecoat Talks', the most successful online platform to communicate live current science the Centre has ever launched. Activating STEM partnerships across North America, the regular series connected audiences of all ages with live STEM leaders. Activities such as these augmented Science North's digital engagement by 240% on Facebook and 31% on Instagram.

On July 4, Science North reopened its science centre to the public on weekends and some select weekdays, with modified visitor experiences, new pandemic protocols and physical changes to create a safe visitor environment. High touch exhibits were removed; exhibits were further distanced to allow for physical distancing of 2 metres, live science shows were moved to larger/alternate spaces, outdoor guided expeditions were added to move visitor experiences to wide open spaces. Enhanced exhibit and theatre sanitization protocols throughout the science centre were implemented and continue to be adjusted as required. The IMAX® Theatre, Planetarium, Special Exhibits Hall and Dynamic Earth: Home of the Big Nickel are projected to remain closed to the general public until March 31, 2021.

Science North projects such as *The Climate Action Show*, 2023 travelling exhibit concepts, the *Go Deeper* project at Dynamic Earth, preparations for touring *The Science of Guinness World Records* travelling exhibit, and new lab renewal exhibits continued, as planned. Science North also secured and began work on external, revenue-generating projects for its external sales clients including: *The Climate Action Show* for the Science Centre Singapore and Hong Kong Science Museum and the Canadian Niagara Power Generating Station attraction with the Niagara Parks Commission.

The science centre at Science North's Bell Grove site is projecting to end the 2020-21 fiscal year 3% over budget in attraction revenue. The increase in revenue can be attributed to the actual ticket price being greater than budgeted as a predominantly member and local audience was budgeted whereas the majority of the summer's attendance were from out of town.

In October 2020, Dynamic Earth hosted the region's most popular Halloween event and a classic Sudbury experience for all ages. To ensure a COVID-safe experience for visitors, Dynamic Earth made a major shift to create an exclusively outdoor event that delivered family fun with new and enhanced outdoor activities. In 2020, the COVID-safe outdoor Halloween event at Dynamic Earth was run at 62% capacity, as compared to 2019, following public health and safety guidelines, selling 7,495 tickets and generating \$84,409 in revenues (2019-16,464 visitors over 12 days and generating \$222,086 in revenue). These results are an increase over



budget by 40% as operating changes were made to promote physical distancing all the while maximizing capacity.

The IMAX theatre and Planetarium remained closed in the 2020-21 fiscal year as the capacity restrictions would have resulted in operating losses.

Science North membership sales have declined substantially as a result of COVID-19 and the science centre's limited operating days. Science North had budgeted a decrease in membership sales of 43% compared to 2018-19 revenues, as the existing memberships were extended 4 months to coincide with the length of Science North's closure. Memberships will generate \$174,300 in revenues, which is 42% below its revised goal and 65% lower than pre-COVID revenues.

### **Education and Northern Programs**

As the pandemic evolved, it was evident that what was previously planned for Science North's education and Northern programs would be significantly disrupted. To mitigate this, Science North sought opportunities to support families, teachers and students in new and innovative ways and Science North remained in regular contact with community, festival, outreach and education partners and this will continue in 2021-2022 while we remain ready to responsibly restart regular, in-person programming as Public Health allows and as our audiences require.

Within days of Science North closing its doors to the public, Science North worked with the Ontario Science Centre to develop a 'Science at Home' proposal to the Ministry of Education whereby both agencies proposed supporting teachers and students through the production of online, STEM-related, learning supports, videos and activities for Ontario's 2 million+ students. This led to a further partnership to deliver coding workshops for teachers in the 2020-2021 school year and we hope to continue the partnership by supporting the teaching and learning of digital, financial literacy and STEM-related skills. Science North also developed and launched a virtual summer learning package, we piloted a virtual learning package for our Sudbury-area member boards and a version for schools outside of the Sudbury area, and we continued to deliver e-workshops in support of CanCode and Skills Catalyst projects. The impact of these initiatives saw content development that included hundreds of new videos, lesson plans and e-workshops, with a potential reach of approximately 20,000 educators and up to 700,000 students.

Science North worked with the City of Greater Sudbury and new partners, Northern Lights Festival Boreal and Sudbury Multicultural and Folk Arts Association to pivot quickly in order to deliver a virtual Canada Day celebration that reached over 100,000 people. Science North further partnered with Heritage Canada to produce a Sudbury feature vignette for the national celebration that was viewed by over 1 million Canadians, and Science North also supported the virtual Thunder Bay event. Science North worked closely with public health authorities to safely host summer camps in Sudbury, Sault Ste. Marie, Dryden, Kenora and Sioux Lookout and launched virtual summer science camps. Over 650 children attended camps in 2020. The first-ever Kenora Science Festival, originally planned for June, happened instead as a "mini-fest" in conjunction with the final farmers' market of the season, saw engagement with 12 presenting community and regional partners and 6000 in-person and virtual participants.

The emergence of the pandemic also provided opportunities to innovate in order to reach children and their families in new ways, while also attracting new revenue. Science at Home STEM Kits began through a small partnership with Roots to Harvest in Thunder Bay to deliver support to food insecure families and swiftly grew to distribution of over 10,000 kits to primarily Indigenous or vulnerable families across northern Ontario. Other outreach activities included the development and delivery of outdoor, live science shows to schools. The Northern Nature Trading experiences and Northern THINK Hub partners, whose program space is in



attractions and libraries across Northern Ontario, quickly worked together to shift to online activities, challenges and events in order to keep young people engaged from home. Science North was proud to have been recognized, with its many northern partners, with two CASCADE Awards: "Best Program - Large Institution" for the Northern Ontario Science Festivals; and, "Best Exhibit - Large Institution" for THINK.

To meet its mandate of serving all of Northern Ontario, Science North invests an extensive amount of staff and financial resources to deliver programs and experiences covering a very large geographical area. The support of grants and sponsorship are imperative in achieving this reach. During the 2020-2021 fiscal year, funding through grants and the private sector has continued to help Science North meet, and in some cases exceed, its expected reach despite the emergence of the pandemic. Funding received from NOHFC, FedNor, CanCode, the Ministry of Education and the Skills Catalyst Fund have been vital in enabling the delivery of high-quality science education and programs for all of northern Ontario.

### **External Sales Business**

Science North's "External Sales" consists of multimedia productions, permanent and duplicatable exhibits, consulting, licences and large format films. Revenues in 2020-21 were significantly up over 2019-20 due to project sales of Science North's new *Climate Action Show* multimedia object theatre, the sale of a duplicate version of its newly redesigned *Nature Exchange* and exhibit development work with our sister agency, the Niagara Parks Commission, on the new *Canadian Niagara Power Generating Station attraction* in Niagara Falls. This is a great example of how the abilities for our respective organizations as sister agencies has enabled us to join forces to benefit the industry's double bottom line.

However, external sales will fall short of its targeted budget of \$453,402 by \$323,437 due primarily to the *Climate Action Show* project start dates. The focus for 2021-22 will continue with promoting sales of the *Climate Action Show* and the newly redesigned and branded Nature Exchange, as well as partnership development for the creation of new products to help diversify Science North's portfolio of offerings to help offset the financial challenges faced in the travelling exhibit market due to the COVID-19 pandemic and continue to create sustainable revenues for Science North.

Science North is one of Canada's largest producers and exporters of science exhibits and shows to clients around the world. Science North's International Sales have and will continue to be impacted by the devastating effect that the COVID-19 pandemic is having on science centres and museums. Science North currently tours eight travelling exhibitions: *The Science of Guinness World Records*, *The Science of Ripley's Believe it or Not*<sup>®</sup>, *Wild Weather, Beyond Human Limits, Game Changers, Beyond Human Limits Lite Trailblazing Women in Canada* and *Arctic Voices*. Through its travelling exhibit business, Science North is projecting to achieve \$750,764 in revenues in the 2020-21 fiscal year, with a loss of over \$800,000 due to 7 lease cancellations due to the pandemic. Science North tours its own productions, and continues to pursue opportunities to broker non-competing travelling exhibitions. developed by other organizations. Another example of partnership work with a sister agency was the development of two of Science North's travelling exhibits Wild Weather and Beyond Human Limits with the Ontario Science Centre.

### **Development**

In 2020-21, Science North refocused its development efforts to support new initiatives implemented throughout the organization, in response to the COVID-19 pandemic. These initiatives included Science at Home kits and online virtual programming, as previously described in the Education section. Through stewardship of existing corporate partners, over \$120,000 was secured to deliver on these important initiatives.



With the challenges of limited operating hours, Science North revisited its existing Corporate Member program to adjust the benefits to its existing members. New member benefits were developed, and Science North projects to maintain the majority of its existing members.

During 2020-21, Science North deepened its relationship with an existing community partner, the Sudbury Charities Foundation, to implement an online virtual Festival of Trees auction which increased community awareness of Science North's status as a registered charity, and resulted a \$9,000 contribution to the organization.

Other fundraising campaigns included a Giving Tuesday campaign and a holiday campaign focused on generating funds for Science North's Laamanen Fund.

### **2020-21 Operating Projections and Attractions Attendance**

A chart outlining 2020-21 operating projections can be found on page 46. A chart with 2020-21 attendance projections for Science North attractions can be found on page 47.



## **Highlights of 2021-22 Operational Performance**

### **Attractions**

Science North will deliver vibrant visitor experiences in the science centre on weekends, moving to additional days of operation in the summer, holiday and spring break periods. Dynamic Earth will follow a similar operating model, between May 1-Nov. 1, 2021. The visitor experiences planned will ensure new and engaging experiences tied to current science that attract new and repeat audiences of all ages which are key to the sustainability of two of Canada's largest science centres.

To kick off the year a major new immersive multimedia experience, the *Climate Action Show* will open on Earth Day, April 22, 2021. This experience will engage audiences on the science of climate change, inspire visitors to take climate action in their everyday lives, and build awareness to work towards clean growth and sustainable global communities. Through the use of innovative technology and immersive storytelling, audiences will be inspired to become agents of change, turning their climate change knowledge into action and bringing about positive change in their neighbourhoods, their cities and ultimately, around the globe.

Science North will host two leased travelling exhibitions. The first, *Indigenous Ingenuity: Timeless Inventions* will be partnered with *Regalia: Native Pride*. Through an interactive quest, visitors will discover how indigenous science is timeless. With a bear and a raven trickster guides, visitors will use RFID tracking technology as they take part in a virtual canoe race, build an igloo, test a kayak's centre of gravity, and discover interactive frescoes. The accompanying photography exhibit will pay homage to tradition and modernity by featuring photos and testimonials of traditional Indigenous Pow Wow dancers dressed in their beautiful and intricate traditional regalia from eastern Canada. The experience will be augmented with Northern Ontario content and experiences, developed in partnership with regional Indigenous partners and stakeholders. The exhibition will be presented at Science North from March 6 to September 6, 2021 and is expected to be a strong draw for both residents and tourists.

The second exhibition at Science North will be *Into the Arctic*, a science and art experience showcasing over 50 original paintings by Canadian Geographic Explorer and painter Cory Trépanier. Over a decade in the making, this travelling exhibition is comprised of highlights from the most ambitious body of artwork ever dedicated to the Canadian Arctic, created over 40,000 kilometres of exploration, through six Arctic National Parks and 16 Arctic communities. Accompanying Arctic films will be offered in the Vale Cavern. The exhibition will be on show from Sept. 25, 2021 to Jan. 2, 2022 and is projected to attract new audiences such as older adults and SciArt enthusiasts.

During its 2021 season, Dynamic Earth will host *Under the Arctic: Digging into the Permafrost*, a travelling exhibition with strong thematic ties to the content within the science centre and to current science. The exhibit will offer visitors the unique opportunity to discover what lies beneath the Arctic with the vast and fascinating world permafrost. Visitors are transported to the Arctic using the sights and smells of the Western Hemisphere's only permafrost research tunnel, with Ice Age fossils and discover step into the role of a climate change field researcher to understand climate science and engineering challenges posed by thawing of permafrost.

The 2021 Halloween experience will take place at Dynamic Earth over 14 weekends, from Oct. 1-30, 2021 and will feature a renewed outdoor visitor experience with new Pumpkinferno sets designed and developed with partners at Upper Canada Village.

Science North will utilize the customer relationship management strategy to create customized packages and reviewed



membership offerings in order to maximize self-generated revenues.

## **Education and Northern Programs**

Science North's Education and Northern Programming will continue to responsibly restart and expand across Northern Ontario in 2021-22. Science North will continue to support the *Northern Nature Trading* experiences and *Northern THINK Hubs* in 12 northern locations and will seek to add two additional experiences in two communities. These experiences provide improved attendance and increased revenue, depending on the location.

Science North will continue to innovate and expand its support for teachers and students in Ontario. It will be important to maintain the momentum of unprecedented student and teacher reach realized during the pandemic while further strengthening the ability to provide education resources that support STEM-related learning and concepts, digital skills and pedagogy, career exploration and financial literacy. Increasing our engagement with teachers, schools and boards outside of Greater Sudbury will bolster Science North's ability to generate new revenue and remain relevant.

With the success of the Northern tour of the 100 square metre *Beyond Human Limits* exhibit in five Northern Ontario communities in 2019, Science North will facilitate a similar touring experience with Science North's 13th travelling exhibition, *The Science of Guinness World Records*. Work is already underway to prepare the customized version of the 14th travelling exhibition, *Indigenous Ingenuity*, that will tour Indigenous and northern communities beginning in 2022. The large-scale version of this exhibit will be at Science North and at the Thunder Bay Art Gallery in 2021-2022. Science North is working closely with its Northeastern and Northwestern Advisory Committees to develop the adjacent science and cultural programming for the exhibit and a new partnership with Indigenous Tourism Ontario will ensure there is significant benefit for all Northern Ontarians.

Science North remains optimistic about its ability to safely improve summer science camp attendance in returning to at least 15 Northern communities in 2021-2022. Maintaining existing and developing new partnerships and sponsorship will be a key priority for March break and summer science camps in order to realize efficiencies, minimize costs and restore the reach of Science North camps beyond 2021-2022. Science North intends to continue to present Science Festivals in North Bay, Sault Ste. Marie, Thunder Bay and Kenora.

Science North's Thunder Bay operations and staff will continue to play a key role in offering experiences across the Northwest. The Centre's Board of Trustees received the Northwestern Ontario Expansion Study in 2020 and unanimously recommended that once additional funding is secured, work should continue on the schematic design and planning to further develop Science North's expanded presence in Thunder Bay and Kenora.

Science North will seek to responsibly and safely restart and recover its northern impact in 2021-2022 through the most significant outreach project in its history: The Great Northern Ontario Roadshow. Once full funding is secured for the project, it will see at least 50 festival-style events across Northern Ontario that will re-energize tourism, communities and local economies. Science North will engage hundreds of current and new community, attraction, tourism and private sector partners to showcase the diversity of experiences, vendors and attractions that make Northern Ontario such a remarkable place to live and visit, in what will be the year of hyperlocal tourism and the "staycation."



#### **External Sales Business**

Science North will diversify its client base to help reduce the impact of increased competition and the effects of the pandemic within its traditional markets in the North American science centre/museum industry. The Centre's target is to generate \$400,000 in revenues from these new sectors and markets. New products will be marketed to align with changing client needs and increase Science North's competitiveness. For example, the new *Climate Action Show* object theatre will drive sales with new and existing clients. Science North has also recently developed a rebranded modular version of its *Nature Exchange* experience through a new partnership with a design firm and fabricator. Additional partnerships will be sought with software and gaming developers to provide new product offerings and new software products to enhance existing offerings. These new products will help achieve the net revenue target of \$687,000 for the Centre's International Sales, contributing to sustainable revenue growth for Science North.

Science North's travelling exhibition business will continue to be challenged by the COVID-19 pandemic as science centres and museums that have reopened, have opened back up to a fraction of their pre-COVID attendance levels and some have even begun to close their doors again. Science North projects its travelling exhibits will generate a profit of \$17,474 in 2021-22. However, there is potential to exceed this target if markets open back up when a COVID-19 vaccine becomes widely available. Science North's newest travelling exhibition, *The Science of Guinness World Records*, was developed through its second partnership with Ripley Entertainment. Starting in fall 2020, Science North will manage its five to seven year North America tour, along with managing the tours of seven other exhibitions. The organization will continue to pursue opportunities to broker non-competing travelling exhibitions developed by other organizations.

## **Development**

Science North will focus its Development efforts on securing private sector support for its upcoming initiatives, including online programming, onsite travelling exhibitions, and Science@Home STEM kits. Furthermore, it will publicly launch a capital campaign to support the *Go Deeper* expansion and renewal project at Dynamic Earth.

**2020-22 Operating Projections** 

	2018-19 Actual	2019-20 Actual	2020-21 Projections	2020-21 Budget (from Aug 2020 amended BP)	2020-21 Budget (from original BP)	2021-22 Draft Budget
Operating Grant	\$6,828,900	\$6,828,900	\$9,903,829	\$6,828,900	\$6,828,900	\$6,828,900
Self Generated Revenue	\$11,732,979	\$10,063,796	\$7,094,168	\$7,857,574	\$13,755,508	\$4,885,171
Expenses	\$19,256,200	\$17,904,976	\$16,840,102	\$16,090,950	\$20,851,556	\$13,336,503
Net Surplus (Deficit)	(\$694,321)	(\$1,012,280)	\$157,895	(\$1,404,476)	(\$267,148)	(\$1,622,432)



## **2020-22 Science North Attractions - Attendance Projections**

Science North Attractions	Science North Attractions 2018-19		2019-20	2020-21		2020-21		2021-22
	Actual		Actual		Year Projected		Budget	Draft Budget
Science Centre								
Attendance	151,8	57	136,687		13,957		18,673	20,163
Revenue	\$ 1,222,1	4 \$	1,183,980	\$	156,921	\$	152,732	\$238,428
Dynamic Earth								
Attendance	54,8	.8	54,448		7,495		5,354	11,112
Revenue	\$ 508,9	52 \$	536,823	\$	84,409	\$	48,470	\$117,706
IMAX Theatre								
Attendance	41,8	3	33,889		-		-	0
Revenue	\$ 342,5	37 \$	265,864	\$	-	\$	-	\$0
Planetarium								
Attendance	16,6	10	15,366		-		-	0
Revenue	\$ 89,0	0 \$	79,935	\$	-	\$	-	\$0
Escape Room								
Attendance	3,3	11	0		0		0	0
Revenue	\$ 58,4	8 \$	-	\$	-	\$	-	\$0
Total All Attractions								
Attendance	268,5	9	240,390		21,452		24,027	31,275
Revenue	\$2,221,1	31	\$2,066,602		\$241,330		\$201,202	\$356,134
School Attendance								
included in above								
Science Centre	24,1	.4	17,960		-		-	-
Dynamic Earth	7,4	4	7,134		-		-	-
IMAX Theatre	6,9	55	4,979		-		-	-
Planetarium	2,9	1	1,698		-		-	-
Escape Room		15	-		-		-	



## **Performance Measures**

Q4 projections on key performance measures for 2020-21 are presented in Appendix B.

Targets associated with each action to achieve Science North's priorities and goals are included in the tables in the "2021-22 – Strategic Priorities and Goals & Performance Measures" section of this Business Plan starting on page 12. A summary of the 2021- 22 key performance measures is presented in Appendix I. In keeping with the Agencies and Appointments Directive, Science North's performance plan includes both output and outcome based measures and targets.

## **Risk Assessment**

Risk identification, assessment and mitigation strategies are presented in Appendix D of this Business Plan.

## **Contingency Plan**

Science North's contingency plan can be found in Appendix E.



## **Resources Needed to Meet Priorities and Goals**

A stable source of revenue. The operating funding provided by the Ontario Government is the underpinning to Science North's success. Science North leverages this funding to generate significant earned income in order to remain a strong and viable attraction. This stable funding allows Science North to deliver its programs, activities and services throughout Northern Ontario. It supports the development of strong partnerships, it drives significant economic benefits and job creation, it's the seed funding for a strong tourism industry, and it supports Science North's role as a creator of cultural, heritage and creative products, as well as the ability to support public and private sector partnerships across Northern Ontario.

However, this funding has remained frozen for over 12 years. It is required to generate an additional \$1.8 million of earned revenues annually simply to keep up with the inflationary pressures on the budget. The significant negative impacts of COVID-19 on earned revenues will continue into the 2021-2022 fiscal year, adding even more pressure to the financial operation of Science North. While Science North has been able to mitigate the impact of a frozen operating grant, the climate for growing earned income to sustain a strong attraction is limited. The philanthropic culture in Northern Ontario is limited. The ability to increase admission prices or membership fees is at near capacity. And while external sales of Science North's products and visitor experiences have grown, it is a challenge to continuously increase profit expectations from this source of revenue. It is hoped a re-calibration of the funding relationship similar to the one experienced in 2009 can occur in the future as the Government of Ontario makes strategic investments to support the recovery of the tourism industry.

Additional revenue sources to support new initiatives. Science North has a significant presence and impact across Northern Ontario. The Centre also has a high rate of repeat customers throughout its operations. The success of this presence and performance can be attributed to the capacity to adapt, change and renew programs and audience experiences. These elements require funding from a variety of stakeholders, including government grantors and private sector sponsors and donors who share in the vision of Science North. In turn, Science North puts a strong emphasis on being highly accountable to its funders and the delivery of strong results in meeting funder criteria while also delivering on the Science North mandate.

**Sound infrastructure.** The renewal of Science North's attractions and assets is critical to remain safe, efficient, sustainable and competitive. Science North's buildings on the Bell Grove and Dynamic Earth sites are nearly 36 years old and 16 years old respectively. As identified by the Ministry's Asset Management Information System (AMIS), an investment in excess of \$20 million is required over the next three years for repairs and renewal of these physical plants. The Ministry's average annual financial commitment to Science North's infrastructure renewal for the past four years has been far below the investment required to maintain existing facilities. Science North will continue to seek and access funding to help minimize the shortfall in capital infrastructure funding.

State-of-the-art technology. Technology is the foundation of every modern business. Inflexible, out-of-date technology inhibits and constrains organizations, while good, well-managed technology can enable new capabilities and possibilities. Customers' expectations of simple, fast and convenient service are becoming increasingly difficult to meet, given the rapid pace of change with new technology and digital communication. Additionally, increased accountability reporting requires Science North to consider additional investment in this area to ensure accurate, timely and transparent reporting. Improvements to technology have at times been difficult to implement given the lack of internal resources and funding restraints. Infrastructure upgrades to ensure enhanced data recovery and cyber security, business system planning and knowledge management are the main focus in 2021-22 to ensure



the Centre's digital assets are safeguarded. Science North will continue to seek alternate ways to increase its resources investment into the technology required to meet staff and customer needs, to improve productivity and to meet accountability requirements.

**Strong science partnerships.** Directly tied to the goal of *current science driven by collaborative partnerships*, the science teams develop and implement new visitor STEM experiences with a focus on current science. The growth of active science engagement is supported by partnerships, relationships and active engagements with the scientists, researchers and innovators that are immersed in their labs and research facilities regionally, provincially, nationally and internationally.

Through these interactions and partnerships in fields such as epidemiology and human health, climate change, mineral exploration and mining, science communication around misinformation and disinformation and dark matter particle physics, Science North is able to develop science experiences and knowledge building that visitors cannot experience in other informal learning centres.

Additionally, Science North and Laurentian University jointly deliver the award-winning post-graduate program in Science Communication. This Master's program includes coursework and thesis supervision for post-secondary students by the two Adjunct Professors within the Science North team. The program trains the next generation of science communicators who will work in the fields of science, research, industry and public policy. Building on the growth of this premier program, the only one of its kind in North America, the Centre's scientists continue to engage in developing new ways to create and measure the impacts of its new visitor experiences.

An innovative, engaged workforce. Achievement of Science North's strategic priorities and goals will require a high performance and highly talented workforce. Science North will continue to implement strategies to attract, retain and develop the best staff possible. This will be achieved by continued implementation of its Leadership Development and Innovation strategies, which ensure continued focus on key engagement drivers, a fluid and adaptable talent management plan and strong leadership and business solutions that enable, recognize and grow employees. Increased planning will take place to develop and implement formal succession plans and increased leadership development opportunities. More robust performance management systems will also be developed to better link performance, goal setting and development plans with the goals of the organization.

**Strong and effective relationships with community and educational partners in Sudbury and the North.** Partnerships across the North are key to meeting Science North's goal of being the science centre for <u>all</u> of Northern Ontario. Strong partnerships open doors and provide resources that would not be possible otherwise. These partnerships exist to:

- create connections, opportunities and guidance to support development and delivery of science experiences for Indigenous audiences;
- help plan and deliver annual Science Festivals in Sault Ste. Marie, Thunder Bay, Kenora and North Bay;
- support delivery of *Northern Nature Trading* experiences in six communities Kenora, Red Lake, Thunder Bay, Sault Ste. Marie, North Bay and Timmins;
- support delivery of the new *Northern THINK Hubs* in six communities Kenora, Fort Frances, Thunder Bay, Sault Ste. Marie, North Bay and Timmins;
- develop and install two additional Northern THINK Hub or Northern Nature Trading experiences in two northern communities;
- lead, develop and deliver travelling exhibits, including the *Science of Guinness World Records* in 5 communities in 2021 and Indigenous *Ingenuity* in Thunder Bay in 2021-2022 and in additional Northern communities in 2022;



Partnerships in the educational sector have raised program experiences to another level and will continue to be key in Science North providing valuable and unique programs for students and teachers:

- Partnerships with the four school boards in Sudbury and school boards across the North continue to be a very high priority. In addition, Science North is working to grow relationships with large school boards such as the Toronto District School Board and Peel District School Board, two of the largest in Canada. Virtual programming will continue to be an area of focus.
- Partnerships with leaders at faculties of education at Laurentian University, Lakehead University and Nipissing University help to involve student teachers in teacher workshops.
- Industry partners for SHSM programs allow us to connect students to real world situations and future career opportunities. The partnership with Health Sciences North through the Simulation Laboratory (SIMLab) is a great example of an ongoing partnership that supports this initiative.
- A new partnership with Health Sciences North through the Simulation Laboratory (SIMLab) supports Science North's Specialist High Skills Major (SHSM) Certification Program. In addition, industry partners for SHSM programs are connecting students to real world situations.
- Partnerships with school boards and other organizations that have quality online, virtual and synchronous resources will
  enable Science North to promote its teacher resources with their user base and vice versa. One such example is the
  partnership with Connected North that enables Science North to deliver e-workshops to Indigenous audiences and schools
  across Canada.

For more information about Science North's work with community and educational partners, please refer to the "Initiatives Involving Third Parties" section of this Business Plan.

Accessibility for Customers. Science North will continue to implement its multi-year accessibility plan, with a goal of identifying and minimizing barriers and creating an equitable and inclusive environment consistent with the principles of independence, dignity, integration and equal opportunity. Science North has been successful in securing partial funding and will continue to seek funds from sources beyond those from the Ministry to increase the Centre's ability to fulfill its requirements in this area.



## **Human Resources**

More than ever, Science North relies upon a committed and dedicated workforce as the basis for its success. Operating in a pandemic environment has created unparalleled challenges and placed even more reliance on a workforce already under significant strain with newfound work/life challenges. Adapting to the ever changing 'new norms' imposed by COVID-19, Science North's workforce has been required to shift norms and habits frequently, resulting in significant levels of unpredictability, uncertainty and heightened levels of stress. The challenges of balancing work and family in such a volatile time of a pandemic are significant. Science North's ability to support staff through these challenges, resulting in its workforce remaining agile, innovative and adaptable, is key to its recovery. Increased challenges are expected to continue in the following areas:

Mental Health and Wellbeing. While stress, anxiety, and other mental health issues are not new occurrences in any workplace, the current environment has seen a significant rise in mental health issues for staff. The requirement to change working norms, self-isolate, experience unforeseen health risks, balance work and family risks and concerns, cope with heightened levels of job insecurity and associated financial concerns has led to a significant rise in mental health challenges. Science North will continue to support its workforce with enhanced benefit, wellness, coaching and development offerings, as well as support through flexible working arrangements and accommodations as needed.

Managing Remote Work. Changing Public Health and operational guidelines have resulted in the majority of Science North staff having to work remotely since the onset of the pandemic. For many, this has been a challenging transition. Balancing work with unexpected family requirements, home schooling, adapting to new working habits, new technological approaches and changing work priorities has been necessary, and is expected to continue into 2021-22 until many of the current restrictions are eased. Science North will continue to adapt its policies, procedures and tools to help better support and equip staff required to work remotely.

**Employee Communication**. A workforce largely working remotely creates greater gaps and challenges involving communication and ensuring staff remain 'connected' to their colleagues and work. Lack of direct daily contact which ordinarily exists when working onsite risks creating a greater sense of disconnect by many. To offset these challenges, efforts will continue into 2021-22 with increased communication strategies, increased usage of video communication tools such as Zoom and Teams and modified engagement strategies.

**Employee Engagement**. The challenges associated with operating during a pandemic risks strains on employee engagement. Operational challenges and realities have forced a reduction of the workforce, suspension of several reward strategies, reduction in professional development opportunities, as well as postponement of several employee recognition events. While the vast majority of staff are understanding of the organizational challenges, motivation and engagement have and will continue to be strained. In addition, in the current labour market where not all employers have necessarily been faced with the same challenges, there is a heightened risk of Science North losing staff to other local competition less impacted.

The above are just a few of the many challenges faced by staff and the organization grappling with the uncertainties of the pandemic. What remains certain, however, is that the pathway for the organization to take toward recovery and to continue to deliver on its mandate will require a high performing, agile and innovative workforce. Ensuring that the workforce is ready, available and motivated will be key.



The following tables provide an overview of Science North's payroll costs and full-time equivalents for the 2020-21 and 2021-22 fiscal years. It also reflects the Centre's volunteer program, which has been significantly impacted by the COVID-19 pandemic.

	2021-22 Budget		2020-21 Revised Budget	
	Payroll Costs	FTE	Payroll Costs	FTE
Core Supervisory and full-time staff	7,159,485	97	\$7,242,178	99
Hourly, part-time and casual staff	1,176,705	36	\$1,296,013	29
Total	8,336,190	133	\$8,538,191	128

	2021-22 Budget		2020-21 Year Budget	
	Hours	FTE	Hours	FTE
Volunteers	10,500	120	17,500	215

## **Communications Plan – 2021-22**

In the face of the pandemic, the organization has pivoted to develop new and engaging ways for Science North and its Bluecoats (science communicators) to interact and communicate with its audiences, community and stakeholders. A regular schedule with our online channels has allowed Science North to deliver impactful and relevant communications in a fun and memorable style, increasing the reach to its audiences, as well as audiences online all over Ontario, Canada, North America and Europe. With this success, Science North is well positioned to actively convey pertinent communications to broader areas with a strong brand awareness.

Science North's partnerships with tourism partners in Northern and Southern Ontario will allow for the creation of unique marketing campaigns, content, cross-promotion, awareness, contests and attraction exposure. Science North actively provides annual and seasonal marketing initiatives, targets and attraction updates to collaboratively create digital content and contests to drive visitors to its website and to drive visits to Northern Ontario's largest tourism attraction, leveraging the tourism audience of its partners. Science North's strong relationships with these tourism organizations allows for a presence at many tourism tradeshows and conferences. A strong rapport developed over many years has provided strong communication and support, which helps drive attendance and awareness in both the Sudbury community and across Northern Ontario.

### **Objectives**

In 2021-22, Science North will continue to collaborate with leading partners to develop effective and targeted campaigns aimed at driving attendance, brand awareness and revenue at both of its science centres. The targeted campaigns aim to:

- Increase brand strength, awareness, interest, attendance and revenue
- Enhance Science North's status as a tourism leader, for tourism growth in Northern Ontario
- Promote new, enhanced and/or renewed science-based exhibits and experiences
- Deepen the visitor engagement offered at both science centres and through Northern initiatives
- Communicate the diversified programming that appeals to various audiences
- Enhance the value-added benefits of memberships and strengthening member loyalty
- Build community relations and strategic partnerships
- Encourage and support environmental responsibility

Science North key projects include, but are not exclusive to:

- Indigenous Ingenuity special exhibition at Science North March to September, 2021
- Launch of Membership awareness campaign March to December 2021
- Summer Science Camp program February to August 2021
- March Break Science Camps March 2022
- Launch of the new Climate Action Show object theatre at Science North Spring 2021

Dynamic Earth – Home of the Big Nickel key initiatives include these and other visitor experiences:

- Under the Arctic: Digging into Permafrost May to September 2021
- Outdoor Science Park will reopen for the season May to September 2021
- Summer Science Camp program July to September 2021



- Halloween at Dynamic Earth October 2021
- March Break Science Camps March 2022

#### **Communication Tools**

In 2021-22 Science North will continue to monitor communication, marketing and advertising trends to ensure it stays relevant to where its visitors, partners and supporters shop, play, and where they get their information from. Over the past nine months, with the impact of the COVID-19 pandemic, there has been a significant shift to digital by Science North to convey its messaging and to engage with its audiences. Science North is well positioned to continue to grow its online communications. Analyzing and understanding customer behaviour, habits and demographics continues to allow Science North to target digital advertising, resulting in stronger campaigns, incentives and online sales. The Centre's multi-marketing channel campaign strategy promotes programming and communicates with current and future customers in areas and on devices they visit/use daily.



## Three-Year Operating Financial Forecast – 2021-22 to 2023-24

The financial impacts on Science North in 2020-21 have been significant due to the pandemic. Science North was projecting a deficit of over a million dollars throughout the fiscal year. With the in-year *Emergency Stabilization Funding* provided by the Ministry of Heritage, Sport, Tourism and Culture Industries, Science North is now projecting a minor surplus for the current fiscal year. Science North had no attendance and revenues between April 1 and July 3 and again from December 25 to March 31, resulting in the inability to secure admission and associated revenue such as onsite food and retail sales. While some of the admission revenue shortfall was offset by funding received by the Ministry of Education, it provided a partial and temporary relief up to June 30, 2020.

Since reopening to the public on July 4, 2020, Science North, not unlike science centres on a global scale, has continued to achieve much lower attendance and revenues compared to prior years, achieving 15% of pre-COVID attendance. While Science North embarked early on with cost saving measures, including revised staffing models, it continues to experience financial challenges. Science North continues to seek additional revenue sources to further lower its projected deficit. However, these efforts are not anticipated to fully replace earned income from traditional sources.

Projected attendance is expected to remain at 15% of pre-COVID levels. This reduction in attendance and associated revenues has been further impacted by a frozen operating grant over the past 11 years, creating additional financial pressures on the organization and its ability to meet key objectives. While efforts have been made to increase non-traditional revenues, specifically finding ways to monetize Science North's digital presence, Science North still faces financial challenges, particularly when faced with mandated legislated costs and inflationary pressures creating challenges in further reducing the organization's expenses. Constraints from a flat operating grant and rising cost of resources have contributed to deficits in forecasts for the subsequent three fiscal years. Science North will continue to build on this Business Plan by implementing successful strategies and adjust where necessary as new approaches to revenue generation and cost efficiencies are investigated and implemented. It will also look to reduce the forecasted deficit.

The Centre continues to look for ways to find new and larger sources of self-generated revenue for its programs and services, invest in learning related to business models and decisions for its employees, and develop new approaches to working with partners to drive sustainability. Plans for fiscal 2021-22 and beyond include:

- The implementation of new visitor experiences at Science North, Dynamic Earth and throughout Northern Ontario;
- Accelerated growth of outreach programming, both in person and virtually;
- A deepened engagement with students and teachers through in-person and online delivery;
- Diversification of grant funding, philanthropic appeals and partnership prospects;
- A rebound in international sales profitability by 2022-23;
- The implementation of new technology and capital improvements to gain efficiency and effectiveness;
- The expansion of the Centre's virtual presence through digital strategies;
- The attraction and retention of a skilled and motivated workforce driving innovation throughout the organization;
- A continued focus on driving efficiencies and sound business decisions.

A detailed financial forecast is attached in Appendix C. Assumptions included in this forecast are:



- A flat operating grant;
- A 13% increase in membership revenue in 2021-22 with a return to pre-COVID levels by 2024-25;
- An increase in attraction revenue by 24% due to an extended season compared to 2020-21;
- Overall attraction revenues expected to return to pre-COVID levels by 2024-25
- A 10% reduction in International Sales consistent with the North-America recovery;
- A focused approach to development and fundraising as a result of resource challenges and new initiatives;
- Achieving a combined 1,000 summer science camp participants in 2021 through in-person and virtual;
- More realistic targets in onsite businesses as a result of 2020-21 anticipated results.

The Senior Leadership Team has worked to find efficiencies and innovative approaches to reducing this deficit. Science North is proud to report that it has reduced the 2021-22 deficit by \$1,038,860 from the original forecast. The Centre recognizes the need to achieve as close to a balanced budget as possible, while still dealing with the recovery of the COVID-19 pandemic. Attaining these financial results is dependent on Science North achieving the 2021-22 actions and targets as described in this Business Plan. The Centre has deficits forecasted for 2022-23 and thereafter.

The organization will continue to build on this Business Plan and implement its recovery plan by executing successful approaches to achieving operating results. However, without additional operating funding, the organization's efforts to offset inflationary and regulatory increases in all cost categories without affecting the Centre's Mandate will be challenging. A continued draw from reserve is not sustainable and reserves are estimated to be depleted by the year 2022 should the funding operating shortfall continue. Science North is committed to working through mitigation plans to reduce its deficits and ensure the organization has done its due diligence in dealing with these extenuating circumstances.



## Capital Activities - 2020-21

Science North has been a leader in planning, implementing and reviewing capital projects that support Science North's infrastructure and renewal. The Centre has partnered with a facility management provider to provide the skills and resources necessary to assist Science North to strategically maintain its facilities and assets as part of its long-term asset management strategy.

Science North has been successful in integrating infrastructure needs with visitor experiences while generating a financial return on investments. A great example of this is the construction of the Smart Grid project at the Bell Grove site and the Solar Roof project at Dynamic Earth. In addition to educating the public about sustainable power generation, these projects are saving the sites \$50,000 per year in energy. One of the evaluation criteria in the asset management strategy is the ability to communicate science through the renewal of core infrastructure. This dual-purpose approach adds increased value to the projects.

High priority infrastructure projects for fiscal 2020-21 have been funded in the amount of \$480,000 from the Ministry of Heritage, Sport, Tourism and Culture Industries. This falls significantly short of the requested \$4.9 million that was submitted for approval. The in-year capital requirements shifted greatly in 2020-21 to ensure the physical sites were properly modified for physical distancing as required through the increased local health guidelines from COVID-19. This limited capital repair and rehabilitation funding means Science North can move only a limited number of critical projects forward. The Centre will benefit from these allocations; however, there remains a larger need for funding to maintain two locations with aging infrastructure, the Bell Grove site and Dynamic Earth site. Science North is currently implementing capital projects to replace the Boiler system at the Bell Grove Site, COVID-19 site modifications and an important investment in the aging IT infrastructure/

The Centre remains underfunded for the unapproved projects as originally submitted. Science North is continually seeking other sources of funds, from both grants and the private sector, to move forward with these critical infrastructure projects.

## Capital Activities - Forthcoming Plans 2021 and beyond

Science North's approach to capital infrastructure investment is aligned with the Ministry of Heritage, Sport, Tourism and Culture Industries "Capital Repair and Rehabilitation Program" by addressing needs related to Health and Safety, Asset Integrity, Code Compliance and Legislation, and Critical to Business. This approach allows for prioritizing at the agency level and provides the information necessary for the Ministry to prioritize its capital funding allocations. Science North considers the core criteria and risk assessment related to likelihood, impact and timeline. Given the low allocation of capital infrastructure funding for 2019-20 and again in 2020-21, Science North is obligated to consider these unfunded projects for the 2021-22 fiscal year. The organization's infrastructure funding needs far outweigh the average Ministry funding, which has been on average \$1 million annually over a four-year period. Furthermore, the identified renewal requirements are on average \$8.9 million per year. Science North's average funding allocation for Capital Repair and Rehabilitation represents less than 11% of its infrastructure needs. These renewal requirements are critical to ensure the organization's facilities operate efficiently while remaining compliant with regulatory requirements, avoiding obsolescence and ensuring a safe environment for its visitors and workforce.



The 2021-26 Capital Plan was developed using a comprehensive planning process and risk-based prioritization that considered strategic alignment, asset condition, operational and revenue impact, threat assessment, customer service, safety, as well as regulatory or statutory requirements. The projects were determined by assessing the associated assets in two independent categories: 1) the current physical condition of the asset, and 2) the operational impact that the asset has on the site where it is located.

The 2021-26 Capital Plan also provides for significant advancement of Science North's Vision through investment in:

- 1. Critical infrastructure renewal:
- 2. Upgrades based on market and customer demands;
- 3. Exhibit and visitor experience renewal; and,
- 4. Major, highly visible projects.

The Bell Grove site is a 18,580 square metre complex located on 9.7 hectares of land. This site supports the majority of the Centre's staff and equipment and is open year-round. Buildings and property at the Bell Grove site support the Science North science centre including:

- 1. F. Jean MacLeod Butterfly Gallery;
- 2. IMAX Theatre:
- 3. Planetarium:
- 4. Special Exhibits Hall;
- 5. Supporting business and sales operations;
- 6. Administrative support spaces;
- 7. Smart Microgrid renewable energy display;
- 8. Exterior spaces including boardwalks, walkways, driveways, access routes, parking facilities, picnic areas, other green areas.

The Science North building (Bell Grove site) is an architectural representation of a snowflake and a symbol of the North. With such a unique facility, special handling of building repair and rehabilitation is necessary. Visitor experiences at Science North are delivered in the science labs of the exhibit building, in multimedia object theatres and the Discovery Theatre, in the Vale Cavern, through large format films in the IMAX Theatre, feature films in the digital dome Planetarium, and science exhibitions in the Special Exhibits Hall. These experiences are extended through outreach programs that serve Northern Ontario.

The Dynamic Earth site includes a 3,530 square metre building and 550 metres of underground drifts located on 11.3 hectares, fully open to the public for eight months a year and open year-round to school groups. Buildings and property at the site support the Dynamic Earth science centre including:

- 1. Underground tour drifts;
- 2. The Big Nickel monument;
- 3. A rooftop solar array;
- 4. Supporting businesses and sales operations;
- 5. Administrative support areas;
- 6. An outdoor science park;



7. Exterior spaces including nearby industry viewing areas, walkways, driveways, gazebo and picnic areas and parking facilities.

The exhibit galleries house rock and mineral exhibits, a children's Explora Mine and multimedia object theatres. Dynamic Earth also has a 125-seat high-definition Epiroc Theatre, and a 185 square metre ever-changing exhibit gallery named the MacLean Engineering Gallery.

Unique structures and geographic location pose challenges for the maintenance of Science North and Dynamic Earth's assets, impacting useful life and project completion due to weather restraints. The organization has a team of dedicated and skilled facilities workers who pride themselves on understanding the intricacies of the Centre's facilities and are used to dealing with the northern challenges they face to ensure these assets are maintained at a superior level.

A multi-year commitment and plan from the Ministry of Heritage, Sport, Tourism and Culture Industries will provide the necessary support to seek further funding, allow minimal visitor interruption, properly source suppliers and address seasonal challenges.

## A. Physical Plant

Science North has identified and prioritized its physical plant requirements using a system of risk ranking, physical walkabouts, regulatory requirements and a review of the Asset Management Information System (AMIS). Below are the details outlining the organization's infrastructure and equipment requirements as well as the physical plant support for continuous exhibit renewal. This plan has an objective to reduce asset risk and strengthen the Centre's sustainability.

Projects for 2021-22 include a funding request to the Ministry of Heritage, Sport, Tourism and Culture Industries for \$4.1 million. These are categorized in the Asset Management Plan in Appendix F based on systems within the physical plants. Many of these systems impact all areas and should be considered as part of a larger project in order to improve efficiencies. The 3 core priorities over the next few years will include

- A full renewal of the Heating, Ventilation & Air Conditioning (HVAC) systems at Bell Grove and Dynamic Earth sites.
- Targeted roofing replacement at the Bell Grove site based on the assets age.
- Continued work on Critical Systems, Floor & Wall renewals, Window replacement and Accessibility

Science North's Capital Plan focuses on the renewal of existing facilities and systems. The plan provides strategic investments in new construction, plans for and provides for much needed facility renewal of an aging physical plant, and provides for the replacement of obsolete and inefficient systems.

## B. Exhibit Renewal and Change

Science North's global reputation as a leader in communicating science has been built on high quality science exhibits, a wide variety of experiences, personal interaction by the renowned Bluecoats and visitor experiences that change regularly and are science happening in Northern Ontario. Exhibits change, shows change and programs change.



Visitors, whether from Greater Sudbury or tourists, return to Science North's attractions because they experience something new on each visit. Science North actively pursues funding to support these projects.

The following outlines exhibit renewal plans for the science centres at Science North and Dynamic Earth from 2021-24.

#### **New Exhibits and Shows - Science North**

Science North will create new visitor experiences that will transform its centres and engage audiences at partner attractions across Northern Ontario. Together, these exhibits and show development projects will significantly augment the way Science North attracts and serves a variety of audiences.

New visitor experiences will include:

- The Climate Action Show, a new iteration of Science North's popular climate change object theatres featuring a cast of animated sheep, opening in April 2021
- The Go Deeper renewal at Dynamic Earth, opening in two phases in March 2022 and March 2023
- A new travelling exhibition, opening March 2023
- Dark Matter object theatre on Level 4 at Science North, opening March 2023
- Seasons of the North multimedia experience in the Vale Cavern at Science North, opening March 2024
- Seasons of the North customized versions at partner attractions in Thunder Bay, Sault Ste. Marie and Kenora, opening fall 2024

#### The Climate Action Show

The *Climate Action Show* multimedia object theatre will engage audiences in the science of climate change, inspire visitors to take climate action in their everyday lives, and build awareness to work towards clean growth and sustainable global communities. The show uses real science data to explore topics in current climate science, sustainable growth and climate action initiatives. Through the use of innovative technology and immersive storytelling, audiences will be inspired to become agents of change, turning their climate change knowledge into action and bringing about positive change in their neighbourhoods, cities and ultimately, around the globe.

The theatre experience also includes a follow up exit experience whereby we will engage with newly activated 'climate action agents' beyond their visit to Science North, allowing for Science North to engage with audiences for an extended time period, while capturing climate action impacts. This \$835,000 project will open on April 22, 2021.

### Go Deeper Expansion - Dynamic Earth

Go Deeper is the next phase of Dynamic Earth's renewal and expansion, and is one of the largest projects in Science North's 5-year Strategic Plan. The \$5 million project will showcase modern mining and the future of mining – the equipment, technology, innovation and new opportunities in the industry. This project is a result of feedback from visitors and audiences, partners and industry stakeholders expressing a desire for Dynamic Earth to provide memorable experiences that portray modern mining in a realistic way and tell the story of this rapidly changing and dynamic industry.

The project features 5 elements:

- Big Impact An iconic multimedia experience in the Underground Multi-Purpose Theatre & Programming Space
- Expanded modern mining drifts and exhibits



- New immersive experience for the Vale Chasm elevator
- New, hands-on Innovation Gallery
- A signature film for the Epiroc Theatre featuring the regreening story

Go Deeper will increase Dynamic Earth's annual attendance, increase local attendance and memberships, generate a new revenue stream from rentals, and increase partnerships with the mining industry across Northern Ontario. The new experiences will drive attendance and revenues, at the same time increasing the impact of the Dynamic Earth experience by engaging visitors with modern mining and inspiring future generations to get involved in the industry by stimulating interest in mining-related career choices.

### A New Travelling Exhibition

To meet both goals of changing science centre experiences and being a supplier of high-quality exhibitions, Science North produces its own travelling exhibitions to both to host in its Special Exhibits Hall from March to September and as an external sales product to lease to other science centres and museums. Science North will create a \$2 million travelling exhibition that will open at the Centre in March 2023. Visitors of all ages will delve into science topics through experiments, challenges, hands-on exhibits, immersive environments and innovative multimedia experiences. Extensive topic testing will ensure appeal to a wide range of audiences, including funders. The exhibition must be highly marketable for a successful tour, and Science North will seek potential partners with name brand recognition to augment its competitive edge in the global travelling exhibition markets. The exhibition must also be highly interactive and feature strong, credible science. After a six-month showing at Science North, the exhibition will begin a five-year tour to museums and science centres across Canada and the United States who will lease the exhibit. A projected 2.4 million people will see the exhibition during its tour.

### **Dark Matter Object Theatre**

The new *Dark Matter* object theatre, unravelling the mysteries of the universe, will highlight dark matter research at the world-class SNOLAB facility located near Sudbury, as well as other global dark matter projects. The experience will delve into topics related to dark matter, showcasing the current science of the SNOLAB, particularly the DEAP-3600 detector. The new multimedia theatre will also feature the ground-breaking discoveries that led to the award of the Nobel Prize in physics to Canada's Dr. Arthur McDonald, former director of the SNOLAB. The *Dark Matter* object theatre, valued at \$850,000, will be created in direct partnership with SNOLAB and their research scientists. Importantly, other partners from research facilities globally who study dark matter will be engaged and may include TRIUMF, the Perimeter Institute, Gran Sasso Science Institute, University of Alberta, Pivotal Inc., CERN, Sanford Lab Homestake Visitor Center, Fermilab, Deep Underground Neutrino Experiment (DUNE), NASA and other research organizations.

#### Seasons of the North

Seasons of the North will be a 3-D, special effects multimedia experience that is one of the largest projects in Science North's 5-year Strategic Plan, and the project cost is \$6.9 million. The experience will feature the stories, people and natural history of Northern Ontario. The production will be developed in collaboration with Indigenous advisors to include Indigenous content and will be offered in a First Nations language, as well as English and French.



Seasons of the North will be shown in the Vale Cavern at Science North and this multimedia experience will be custom-modified for installation at four Northern Ontario partner locations: the Thunder Bay Museum, Canadian Bushplane Heritage Centre in Sault Ste. Marie, Lake of the Woods Discovery Centre in Kenora, and in a North Bay location to be determined.

The show's theme will resonate with tourists and local residents alike as they are guided on a seasonal journey featuring dramatic landscape vistas brought to life that showcase iconic creatures such as moose, bears, ravens, beavers and caribou. Audiences will be immersed in new and innovative technology-based experiences that are not available anywhere else in Northern Ontario as they deepen their understanding of Northern Ontario's natural environment and are motivated to protect it. Supporting and driving tourism to Northern Ontario destinations, *Seasons of the North* will also inspire visitors to travel to the locations featured to experience these special places themselves.



## Information Technology (IT)/Electronic Service Delivery (ESD) Plan

The primary goal of Information Technology Services (IT) is to provide a stable, accessible and secure technology environment that delivers and supports high quality, effective business solutions and tools that meet the needs of Science North's staff and stakeholders. Executing upon its new IT Strategy, Science North will focus on the following key areas in 2021-22:

- **1. IT Infrastructure** Science North will continue to make important upgrades to its network infrastructure ensuring robust data recovery, cyber security, back-up and server infrastructure procedures and policies are in place across its network.
- 2. Business System Planning and Integration Science North will focus its attention on enhancing business system strategy and alignment, increasing its involvement in partnering with business areas to conceptualize, plan and execute technology-enabled business improvements in a coordinated and strategic manner. The IT team will work to establish strong relationships with business units across Science North to ensure the infrastructure is high performing, business systems are fully integrated, and the strategic path forward is clearly understood across the organization.
- 3. Cloud Based Strategies Science North will be more purposeful in adopting a Cloud-first approach as part of its strategy to deliver more robust, flexible and quickly implemented services. Science North will proactively seek to move some of its core technology infrastructure to the Cloud where the business case exists.
- **4. Knowledge Management/Sharing** Building upon its new enterprise content management (ECM) system in SharePoint, policies and strategies will continue to be developed to ensure an organizational approach to documentation filing, security and sharing is adopted across the organization. As well, new approaches will be adopted to enhance information sharing across the organization, including the development of a new organizational intranet.



## **Initiatives Involving Third Parties**

In addition to the relationship with the provincial government, Science North seeks and builds partnerships with third parties to more effectively meet its Strategic priorities and to achieve its Vision and Mandate. Forging strong partnerships and mutually beneficial relationships provides Science North with additional resources to better serve its audiences. Partnerships include both financial and in-kind support, sharing of expertise, and, in some cases, collaboration to meet mutual goals.

### **STEM Partnerships**

Science North's third-party engagements are focused on science, technology, engineering, and math (STEM) organizations, agencies and industries across the City of Greater Sudbury, the province, nationally and globally. Activating a diverse program that delivers on Science North's Strategic Plan priority of *Being the Leader in Science Engagement* is tied to external engagements with partners. Over the past 36 years, Science North has offered constantly changing visitor experiences, while driving attendance and revenue to its attractions and programs. The ability to deliver this level of change is directly tied to involving third parties such as Laurentian University, Cambrian College, Collège Boréal, Health Sciences North, Health Sciences North Research Institute, the Northern Ontario School of Medicine (NOSM), Vale, Glencore and SNOLAB. These active partnerships support Science North in developing exhibit and program content, engaging new audiences and contributing to the integrity, quality and relevancy of the Centre's current science communication.

### **Northern Ontario Community Partnerships**

Northern Nature Trading Experiences. Science North continues to work with the 6 partner attractions and communities hosting Northern Nature Trading (NNT) experiences through ongoing partner network engagement, to increase attendance and engage residents in these communities to actively participate in these experiences. The addition of pop -up trading events, support of workshop and program delivery, and of trading experiences will continuously bolster attendance and profile in the community and create a changing experience for returning visitors. Building new partnerships and installing additional NNT experiences across Northern Ontario will support the future sustainability and success of the NNT's.

Northern THINK Hubs. Since opening the 6 Northern THINK Hubs, partners have experienced increased attendance, including repeat visitation and great response to the newly added STEM education experience to their attractions. Science North continues to engage with these partners through the collaborative network formed in 2019, to increase success rates with each of their attractions and provide high-quality, sustainable experiences for residents and tourists. Added online and virtual engagement, as well as additional development and delivery of new workshops and programs will continue to be a priority for these attractions in adding new, changing experiences, and increasing visitation and engagement with members and new visitors.

<u>'Science of Guinness World Records' Exhibit - Northern Ontario Tour</u>. Building on the success of Science North's <u>Beyond Human Limits Northern Tour</u> in 2019, which proved to increase visitation ranging from 32% all the way up to 303% at partnering attractions, has led to the development of a 100 square metre customized exhibition of the <u>Science of Guinness World Records</u> (SGWR), with funding support from NOHFC and FedNor. SGWR will tour five communities during summer/fall of 2021, including the Discovery Centre in Kenora, Canadian Bushplane Heritage Centre in Sault Ste. Marie, North Bay Museum, Thunder Bay Museum, and Science Timmins. The tour will provide opportunities for added community engagement through workshops, curriculum linked



school programs, and record-breaking attempt events within each community, as well as opportunities to develop additional partnerships with new communities for travelling exhibition tours across Northern Ontario in the future.

Northern Ontario Science Festivals. Science Festivals, offered in Thunder Bay, Sault Ste. Marie and North Bay, with a newly added festival in Kenora, are continuing to create a lasting impact on Science North's presence in the North. Since 2016, over 52,000 people have engaged in these festivals. The addition of virtual events in 2020 due to the pandemic allowed some festival events to be more accessible and engage an even greater number of participants. Festival partnerships in each community create a sustained presence. As the partnership model has proven successful in Sault Ste. Marie and North Bay, Science North has fostered additional partnerships to leverage the successes of these collaborative ventures, including 11 new partnerships in Kenora and 3 in Thunder Bay. Northern Ontario Science Festivals received a CASCADE award in 2020 for 'Best Program-Large Institution' from the Canadian Association of Science Centres.

Engaging Indigenous Peoples and First Nations Communities. Partnerships continue to be an important and effective way of reaching Indigenous youth across Northern Ontario. The partnership with Connected North continues to play a very important role in Science North's success in delivering e-workshops to classrooms across the North and Indigenous communities across Canada. Connected North is an organization that leverages Cisco's high definition two-way Telepresence video technology to deliver educational experiences to students in remote and rural Indigenous communities. Science North's e-workshops meet Connected North's need for high quality programs with Canadian science content to offer their partner communities. With this partnership, Science North will deliver 35 e-workshops to Indigenous students in Northern Ontario and across Canada throughout 2021-22.

Partnerships with the Bimose Tribal Council, Northern Nishnawbe Education Council (NNEC), Matawa Education and Omushkego Education Council continue to provide necessary connections with the communities these councils serve. Since the beginning of the pandemic, Science North staff have been developing At Home Science Activity kits that have been sent to First Nations communities across Northern Ontario, with the help of these partnerships. As well, the Bimose Tribal Council provides a platform to deliver teacher workshops to the educators in the schools in First Nation communities in the Kenora region. For 2021-22, these teacher workshops will be delivered virtually, allowing even more access for the teachers who live in communities that are hundreds of kilometres away from Kenora, giving them a rare opportunity to take part in professional development.

A newly formed partnership with NOSM will allow Science North to deliver health sciences related content to youth in First Nations communities using two different models. The programming will see the medical school "Learners" (students in years 1 & 2 of medical school) becoming mentors for youth within the 42 First Nation communities NOSM serves. Through a platform called Summer Science Days, the Science North staff will work with the Learners to equip them with materials to deliver programs that excite youth about science and also show them a pathway to learning in order to achieve a career in health sciences. As well, Science North staff will connect with 15 First Nation high schools through a virtual platform and excite them about health sciences and the opportunities that exist within that field.

With the *Indigenous Ingenuity* exhibit being on display in Sudbury and Thunder Bay in 2021-22, there will be many opportunities to engage with Indigenous audiences through various partnerships. A newly formed partnership between the Thunder Bay Art Gallery and Science North ensures the exhibit is housed in an institution in Thunder Bay that is focused on the advancement of Indigenous Peoples through a contemporary lens, complementing the topic matter of the exhibit itself.



Partnerships to Expand Reach in Northwestern Ontario. Partnerships are essential in growing Science North's reach in Northwestern Ontario, providing opportunities that would not otherwise be possible. The reach of Science North's Thunder Bay base has grown significantly over the past five years. Partnerships with the Thunder Bay Boys and Girls Club, Ecosuperior, Lakehead University Faculty of Education, Connected North, Roots to Harvest, Parks Canada, Sleeping Giant Brewing Company, the Lakehead Regional Conservation Authority and the Thunder Bay Public Library have supported initiatives and/or guided their development.

### **Partnerships with the Education Sector**

School Boards. Relationships with school board officials are very important across Northern Ontario. The relationship Science North has with the Sudbury school boards is especially strong and is a model for a win-win partnership. Through building relationships with school boards and school administrators, Science North has been able to meet the needs of this group and gain their confidence. Engaging with the experiential leads Science North works to identify school boards' needs for programs, in particular secondary school audiences. Partnerships with school boards in Sudbury and across the North continue to be a very high priority. In addition, Science North is working to grow relationships with large school boards such as the Toronto District School Board and Peel District School Board, two of the largest in Canada. This enhances the reputation and prestige of Science North, which in turn results in greater success in securing funds to bring these high-quality experiences to smaller school boards throughout Northern Ontario. Connecting with these large school boards, and having them purchase teacher workshops, will have a strong impact on Science North's ability to continue to develop and deliver these programs throughout the North.

<u>University Faculties of Education</u>. Science North engages with teacher candidates from programs in Sudbury (Laurentian University), North Bay (Nipissing University) and Thunder Bay (Lakehead University) by offering them teacher workshops and student placements. As students they are quite interested in gaining new skills and we are able to connect them to future opportunities with Science North. Partnering with leaders at these faculties of education builds capacity with these teachers, familiarizes them with Science North and provides a positive impact on the Centre's reach to the educational community.

<u>Partnerships to Support the Specialist High Skills Major (SHSM) Certification Program</u>. In 2018, Science North launched an Industry Certification program to support Grade 11 and 12 students who are registered in SHSM programs. This certification through the Ontario Ministry of Education allows students to focus on a career path that matches their skills and interests while meeting the Ontario Secondary School Diploma. Students receive the SHSM seal on their diploma when they meet the requirements of the program, one of which is to earn industry certifications.

Sector partners for Specialist High Skills Major Certification programs connect students to real world situations. Two of the optional certifications for all SHSM sectors is the ICE (Innovation, Creativity, Entrepreneurship) and Coding certificate. To be relevant to the various SHSM sectors, Science North has developed many partnerships with both private and publicly funded organizations throughout Northern Ontario. These partners share, through video, relevant, real-world problems related to their industry, with the students, and also provide them with context about who they are and what challenges they face as an organization. Students then spend six hours with Science North staff who lead them through a sector specific contextualized experience.

<u>Partnerships to Share and Promote Online Educator Resources</u>. Science North created an online educator resources website (education.sciencenorth.ca) in 2017 and continuously adds content. The site is free to use and is geared to meet the Ontario Science and Technology curriculum. Partnerships with other organizations that have quality online resources will enable Science



North to promote its resources with their user base and vice versa. Science North has also partnered with school boards throughout Ontario, such as Peel DSB and Algoma DSB, who share this site within their boards' intranet and resource recommendations. Science North will continue to seek opportunities to partner and have a stronger following of its online resources.

### **Tourism Partnerships**

Science North will continue to foster and further develop its strong and long-standing relationships with Sudbury Tourism, Destination Northern Ontario, Northeastern Ontario Tourism, Destination Ontario, Attractions Ontario, Indigenous Tourism Ontario and other key organizations to increase visitation and create positive economic impact to the region. Partnerships and collaborations with Indigenous Tourism Ontario (ITO) will continue to develop and strengthen as Science North works simultaneously to deliver strong programs in the North, particularly the *Indigenous Ingenuity* exhibit. Science North's strategic marketing partnership program is designed to drive greater awareness and appeal of the region and attractions, which will result in new and repeat tourism.

From the analysis and data collected annually and reviews based on visitor feedback, Science North will develop and promote packages, contests, offers and incentives among accommodation providers, restaurants, cultural/arts groups and retailers across Northern Ontario, designed to increase tourist visitation and have direct economic impacts..

### **Media Partnerships**

Science North has strong partnerships with all media outlets in the City of Greater Sudbury, including media outlets with a reach into the North, which results in donated advertising and strong support of the Centre's initiatives. Science North continues to strengthen relationships and develop new opportunities with industry, travel and product influencers matched with relevant content and experiences to showcase current exhibitions, visitor experiences, programs and events.

### **Funding Partners**

As part of the Centre's strategic priority of long-term financial stability, Science North will continue to raise funds for operations as well as exhibit and program development. This includes government funding at the provincial, federal and municipal levels, and private sector funding partners including individuals, corporations and foundations.

Science North believes it can play an increased role in becoming the delivery mechanism for programs and services that further the goals of the government's priorities in many areas, including but not limited to: science and technology, education and Indigenous initiatives. This could be accomplished by embarking on new partnerships with government sectors that provide new long-term funding opportunities for Science North while also achieving government priorities.

### Partnerships in Building New Visitor Experiences for Export

Science North is recognized globally as Leaders and subject matter experts in the travelling exhibition development and touring business. Since 2003, partnering with private corporations, science centres and other government agencies to develop travelling exhibitions has increased the attractiveness, profitability and sustainability of this business. As a result of strong relationship development, Science North most recently began the 5-year tour of its 13<sup>th</sup> travelling exhibition, *The Science of Guinness World Records*, through a partnership with Ripley Entertainment and Guinness World Records. In 2021 Science North will begin working with the Montreal Science Centre on a custom version for a 5-year, pan-Canadian tour of the *Indigenous Ingenuity: Timeless* 



Inventions travelling exhibit, set to begin touring in June 2022. Science North also continues to focus on developing partnerships for new and unique visitor experiences that may premiere at Science North and/or be exported to international markets, including multimedia, film and exhibit products.

### **People Partnerships**

<u>Internship and Student Funding Partners.</u> Science North continues to seek partnerships with funders, both government and non-government, for support of internships and student employment. Internship and student funding helps support the achievement of key Science North initiatives and provides valuable job experience and transferable skills to recent graduates in preparation for successful career exploration and job searches.

<u>Community Partnerships.</u> Science North seeks out and maintains collaborative partnerships with community service agencies and organizations such as Laurentian University, Cambrian College, Collège Boréal, Health Sciences North, Health Sciences North Research Institute, Northern Ontario School of Medicine, Northern City of Heroes, Sudbury & Districts Health Unit, the Sudbury Beekeepers' Association, Sudbury Astronomy Club, LaSalle Animal Clinic and the Sudbury Coin Club. These partnerships align efforts to achieve the goals of both Science North and partnering organizations, benefiting Science North's workplace and workforce, as well as the community and the people served through these organizations.

Northern Leadership Program (NLP) Partners. The Northern Leadership Program, spearheaded by Science North and driven by a strong contingent of NLP partner organizations, is now in its eighth year. NLP has a network of over 140 current Fellows and alumni, supported by CEOs and top leadership from the local community, professionally recognized executive coaches, mentors who are leaders in the community and the North, and guest panellists who share their leadership stories and insights with NLP Fellows.

### Mechanism to Provide Accountability from Third Parties to Science North

Science North has various mechanisms in place to ensure accountability from third parties that it partners with. Depending on the nature of the partnership, these include Memorandums of Understanding, contracts, letters of intent and letters of agreement that clearly outline the obligations of both the third party and Science North.



# **Environmental Scans**



# **Environmental Scans**

# Internal Environmental Scan

#### **COVID-19 Best Practices**

As the organization pivots to meet the challenges a COVID-19 pandemic environment presents, Science North's commitment to staff and visitor safety remains the top priority. Throughout the pandemic, Science North has taken the utmost care and attention to ensure all measures are implemented for the health and safety of both our staff and visitors. This includes ensuring compliance with all Ministry of Health and Public Health Sudbury District (PHSD) protocols and guidelines. The core of Science North's pandemic response has been and will continue to be its COVID-19 Safety Plan, which was developed based on Ministry of Health guidelines and through direct consultation with PHSD. This Safety Plan includes important elements related to the approach it will take to addressing the risks inherent with COVID-19. This includes comprehensive guidelines and protocols on:

- physical distancing
- mask wearing by all staff and visitors in all public areas
- enhanced cleaning protocols and stations throughout all Science North facilities
- modifications to HVAC systems to increase fresh airflow
- self-assessment guidelines for staff and visitors
- protocols for staff showing symptoms
- staff training
- signage and physical distancing markers throughout the centre
- elimination of high touch sources such as water fountains and hair dryers, etc.
- new day camp guidelines following Ontario Government requirements
- patio and restaurant guidelines to follow all food and beverage requirements
- new travel guidelines and restrictions for Outreach staff required to travel throughout Northern Ontario
- identification of exhibits and areas of the Centre (IMAX, Planetarium) to remain closed.

Science North will continue to assess and modify its Safety Plan and response as needed and in accordance with all regulatory requirements and best practices to ensure the safety of all staff and visitors.

# **Delivering a Vibrant Visitor Experience**

In planning and delivering a vibrant STEM (Science, Technology, Engineering, and Math) experience, Science North attractions are in a constant state of readiness, and development, to deliver a changing experience that is vital to reaching and growing a varied and new audience. The expectation that the experience will be new and different from past visits, and feature current science, is key to visitors choosing to visit multiple times annually, providing the ability for Science North to operate two science centres and its other attractions in a relatively small market given the City of Greater Sudbury's population of 162,000 people.

Visitor satisfaction is tied to the selection of exhibit topics that are appealing and relevant; topics must attract entirely new visitors and encourage repeat visitation.

The Information Age, and the significant digital connectivity of 95% + of Canadians has allowed people of all ages to have access to information at their fingertips. Addressing the needs of audiences in seeking correct information, in an age of Infodemic, misinformation, disinformation and the need to discern between fact vs. fiction is an essential skill that a digital audience requires. Science North and Dynamic Earth's audiences are more informed and knowledgeable than ever and come expecting to deepen their knowledge with new and current STEM topics. Opportunities to build relationships with experts in these fields are constantly in development to bring their projects, discoveries and technologies to the public.

In 2021-22, Science North will deliver new projects and visitor experiences including:

- The Indigenous Ingenuity travelling exhibition and program of events
- The new Climate Action Show multimedia object theatre
- The Under the Arctic: Digging into Permafrost travelling exhibition at Dynamic Earth
- and the opening Phase 1 of the Go Deeper expansion at Dynamic Earth

#### Education

Science North supports elementary and secondary school students and teachers by designing programs that meet their needs in STEM education, an important priority of the Ministry of Education. Other Ministry priorities include a new mathematics curriculum, which was released in August of 2020, and has new sections on Coding and Financial Literacy, and strong career connections across STEM-related curricula.

As the pandemic impacts school operations including field trips, persons allowed in schools as well as virtual learning, Science North will focus on virtual and school outreach programming options to ensure experiential learning remains a strong focus for schools, and Science North maintains its reputation for supporting teachers and students. Science North will offer teacher workshops on a variety of schedules to accommodate these needs during the pandemic, and after successfully piloting summer learning and virtual school learning packages in 2020-2021 for school boards outside of the greater Sudbury area, Science North will seek to expand this programming in 2021-2022.

Clear links between Science North's programs and Ministry of Education priorities and ongoing engagement with school board directors and other school representatives will ensure that teachers and principals view Science North as a key provider of educational experiences for their students. Students and teachers will continue to benefit from Science North's experience in each of these areas of priority:

- Coding, an area of focus in the new math curriculum.
- Financial Literacy, an area of focus in the new math curriculum.
- Specialist High Skills Major industry certifications for secondary school students.
- Partnerships with industry leaders and education stakeholders to create new and enriched learning experiences in STEM.

## **Our Audiences**

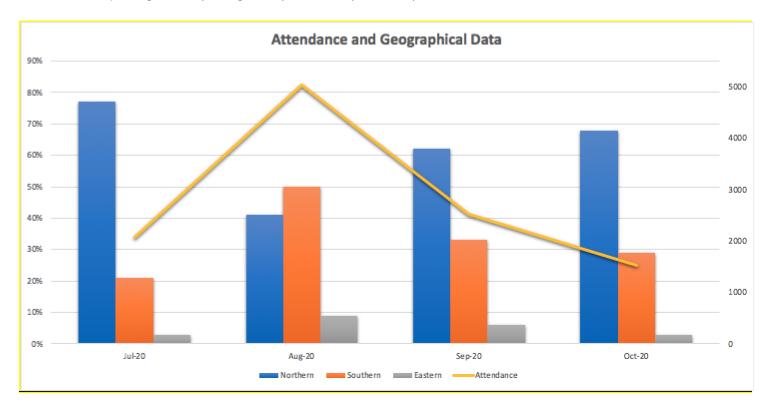
The COVID-19 pandemic has impacted Science North's audiences in 2020-21, with a predicted overall decline in attendance in response to public health gathering restrictions. However, there was also an interesting shift with an increase in overall out-of-town visitors over previous years.

Upon limited reopening of Science North in the summer period of 2020-21, the organization experienced a shift in the geographic origin of its visitors. As COVID-19 restrictions were extended in various regions of Southern Ontario, more visitors from those

regions travelled north to visit Science North. In fact, 38% of its visitors were from Southern Ontario. Interestingly, this increase was not a result of direct marketing to those regions as has been done in previous years. In 20-21, Science North focused its marketing efforts only in Northern Ontario. Looking ahead to 21-22, Science North anticipates a similar trend on account of the "staycation" within-province travel campaign promoted by the Ontario Government.

Beyond geographic data collected at the time of ticket purchase, traditional data collection was limited/not possible during the pandemic to abide by the health and safety protocols. In 2021-22, data collection will be captured in new ways to comply with health and safety restrictions.

The following is a breakdown of where in Ontario visitors to Science North's science centre originated based on figures from July-October comparing 2020 (orange bar) to 2019 (blue bar) attendance:





This chart shows the percentage breakdown of where the Centre's visitors originated in Ontario, broken down by region:

Jul-20	Northern	Southern	Eastern	Attendance
	77%	21%	3%	2067
Aug-20	Northern	Southern	Eastern	Attendance
	41%	50%	9%	5034
Sep-20	Northern	Southern	Eastern	Attendance
	62%	33%	6%	2529
Oct-20	Northern	Southern	Eastern	Attendance
	68%	29%	3%	1519

## **Capital Infrastructure Funding Deficit**

To date, Science North has been successful in maintaining its infrastructure to ensure its visitors enjoy a safe and comfortable visit. With an aging infrastructure comes a growing demand related to key mechanical and electrical systems. Regulatory requirements related to building codes, accessibility and safety have taken precedence over end-of-life requirements given Science North's past funding. The operational changes required as part of COVID-19 have created additional strain on the aging key systems, resulting in higher operating costs and a more immediate renewal need. The renewal of assets is an important component to ensure the facilities remain safe, efficient, sustainable and competitive. The buildings and infrastructure on the Bell Grove and Dynamic Earth sites are 36 years old and 18 years old respectively. As identified by the Ministry's report of Science North's Facility Condition Assessment, an investment of over \$25 million is required over the next few years for repairs and renewal of the physical plants. The Ministry's financial contribution to infrastructure renewal fell considerably short over the past few years. This has had a significant impact on Science North's facilities and the ability to maintain core systems and facilities that attract audiences. Science North continues to seek innovative ways to reduce repair costs, extend the life of its assets and establish alternative funding. As a first step, the Centre has partnered with a facility management provider and has established a preventative maintenance system aimed at meeting these objectives.



#### **Government Grants**

Government grants beyond the base operating grant from the Ministry of Heritage, Sport, Tourism, and Culture Industries remain an important element of Science North's self-generated revenue, to support visitor experience renewal. Science North's Strategic Plan includes the development of several visitor experiences at the science centres in Sudbury and in other Northern Ontario locations. They also support the expansion of outreach to Northern Ontario communities including First Nation Communities. These projects are important to delivering on the mandate of Science North. Over its history, the organization has had a successful track record in securing government grants, with a focus on accountability and matching funders' program priorities with the needs of Science North's audiences.

Science North will continue to pursue government funding at all levels to support projects aligned with its Strategic Plan and to support the organization and its ability to deliver on its mandate in the face of the pandemic, with a focus on mutual benefit for funders and for the Northern Ontario audiences Science North serves.

#### **Science North Workforce**

Science North relies upon a committed and dedicated workforce as the basis for its success. Operating in a pandemic environment has created unparalleled challenges and placed even more reliance on a workforce already under significant strain with newfound work/life challenges. Adapting to the ever changing 'new norms' imposed by COVID-19, Science North's workforce has been required to shift norms and habits frequently, resulting in significant levels of unpredictability, uncertainty and heightened levels of stress. The challenges of balancing work and family in such a volatile time of a pandemic are significant. Increased challenges have been experienced in the following areas: mental health and wellbeing, managing challenges of remote work, employee communication, and employee engagement.

The success of Science North's projects and programs will rely on effective brainstorming, creativity and innovation. Three areas currently affected by remote work include:

- •<u>Team Building</u>: Ensuring team members stay connected and engaged is key to effective collaboration. Implementing Office 365 has greatly increased the fluidity of online work by offering integrated messaging, video, and file-sharing tools. Further training will develop the full benefit of this software.
- •<u>Brainstorming and Idea Generation</u>: A huge variety of online tools exist to support brainstorming such as collaborative documents, virtual whiteboards with sticky notes, mind mapping, interactive feedback platforms, and decision support software<sup>1</sup>. As these tools are evaluated, a key goal will be integration within the Microsoft environment.
- •<u>Innovation</u>: Science North has an established innovation committee that champions new ideas and improvements to organizational processes. Building capacity to also address creative project practices and revenue-generating ideas will continue to engage our remote workforce in common goals.

The above are just a few of the many challenges increasingly faced by staff grappling with the uncertainties of living and working in a pandemic. In 2021-22 Science North will need to continue to explore and innovate new digitized, more efficient and tailored support programs to help better support staff through these challenges. Enabling its workforce to remain agile, innovative and adaptable will be key to the organization's recovery through the pandemic.



# **Mandated Accountability and Legislation**

Science North is a strong supporter of moving its funders' programs forward through participation in voluntary initiatives such as research and studies to encourage a strong foundation of science centres and like organizations and to support provincial government commitments. The organization has allocated several internal resources who have participated in and supported commitments related to FIPPA, Open Data, archiving, compensation review and science centre museum surveys, all while maintaining current staffing levels. With its skilled and valuable resources, Science North has been effective in adopting mandated directives and legislated requirements by meeting deadline requirements and implementing valuable processes to meet these requirements. Given the organization's track record, Science North has set the bar high with these implementations, diverting resources and challenging productivity to deliver its core mandate.

# **External Environmental Scan**

## **Growing Science North's Reach in the North**

Science North has continued to engage with its partners, with other agencies, and with attractions in the North. Despite the challenges due to the COVID-19 pandemic, Science North worked with partners, communities and public health authorities to reinvent its outreach and initiatives to safely maintain a presence in the region and will continue to do so in 2021-2022. In exploring further options to support Northern communities, Science North directly engaged economic, tourism, agency, attraction and community partners to gauge the feasibility and appetite. It was determined to be strong, even in the face of COVID restrictions. Confidence has increased, based on Science North's safe, varied and extensive reach during the pandemic in 2020. Virtual reach opportunities will continue to be leveraged where in-person efforts are restricted.

More specific research on interest in Science North-produced travelling exhibits generated the following feedback:

- 37 out of 74 museums/attractions across the North indicated they have exhibit hall space and/or a need for changing exhibits at their centres and would be interested in exploring an opportunity to work with Science North and host an exhibit, especially as they don't have funding to support this change.
- At least 11 centres are interested in longer tour periods for travelling exhibits when they are available.
- There is great interest in hosting touring exhibitions that would appeal to school audiences. Attractions have a need to increase their school visitation during the school year.
- Six of these centres are currently partners with Science North in hosting Science North's *Northern Nature Trading* experience and/or a *Northern THINK Hub* and/or hosted the customized *Beyond Human Limits* travelling exhibition.

This research points to the excellent potential for Science North to increase and deepen partnerships across the North through longer exhibition tours, permanent installations and providing opportunities to increase engagement with school audiences in order to drive increased partner attraction attendance and regional tourism.

# **Serving Indigenous Audiences**

To date, in-person interaction with Indigenous audiences and in First Nations communities has been very limited during the pandemic as Science North deferred to the advice of Indigenous communities and partners. In 2021-2022, Science North will begin to re-establish in-person programming with Indigenous audiences. Based on the success and reach of its STEM kit initiative to Indigenous children across the North, Science North will explore ways to expand that reach in 2021-2022. This initiative continues



to be informed by the advice of Science North's two Indigenous Advisory Committees. The following was also gained by research:

- Organizations such as Elephant Thoughts, Right to Play, Let's Talk Science, Youth Fusion, Frontier College and Actua have a
  national mandate whereas Mining Matters and Superior Science have a smaller geographical scope. Their programs and
  services are sporadic and funding dependent.
- Many of these organizations focus on programming in remote communities rather than those that are accessible by road. This may give Science North an advantage as it visits mostly road-accessible communities. That being said, potential partnerships could involve adding a science component to another organization's existing programs to increase Science North's reach, decrease expenses and strengthen proposals. One such example is Frontier College, a national institution with branches in Thunder Bay and other Ontario cities, which delivers summer literacy programming to 130 First Nation communities across Canada including about 25 in Ontario.
- Comparing pricing, most organizations are similar to Science North in offering funded programs at no charge to First Nation communities. In some cases, communities pay for the organizations' services.

# Municipally-Run Leisure Programs for Youth in Northern Ontario

Prior to the emergence of the COVID-19 pandemic, 2020 saw a marked decrease in both the number of Northern Ontario municipalities offering child-based programming across Northern Ontario, and an overall price increase across the sector. As a result of the pandemic, almost all municipally-run leisure programs were cancelled outright, or were dramatically reduced due to restrictive public health guidelines into the operations of day camps across the province. The ups and downs of the pandemic created a much more fragile registration environment, with parents reacting strongly based on COVID-19 infection rates and public health guidance. It is expected that there will still be volatility in this market, and Science North's market research will hold true in that there will be a range of registration behaviours (including non-registration and/or cancellation), that parents still value summer experiences for their children, and trust in Science North's ability to safely hold camps will remain high.

In a general overview of our larger communities, the pandemic has resulted in much smaller offering of programs per community with, in many cases, a price increase over 2019. Not only were there fewer providers of recreational programming for youth, but in many cases the number of weeks of availability was substantially less than previous summers. (One week versus a whole month for example.) For those parents who registered with Science North for summer science camps, there was a high level of appreciation of something 'normal' for their children in summer 2020. It is anticipated that this will continue into 2021.

Science North's previous environmental scans on municipally-run leisure programs for youth in Northern Ontario revealed summer camp programming is offered throughout the summer at very affordable rates in many of the larger Northern Ontario communities. Reviewing the program content shows that many are very basic programs that focus on affordable childcare rather than quality experiences. Many camps lack depth of resources and mostly use other municipal infrastructure such as pools, gyms, beaches and playgrounds. Municipalities that offer comparable programming to Science North charge similar weekly rates. Opportunities may exist with larger towns that have reduced or do not offer summer-long day camps. In communities such as Sault Ste. Marie, Dryden and Pembroke, Science North's high sales rates may reflect the lack of formal municipally-funded camps.



In smaller communities of less than 7,000 people, day camp opportunities are very basic as well, focused on childcare rather than experience. Community libraries may offer free or very inexpensive (\$2 to \$5 for an afternoon) programming a few days a week. This may be an opportunity for Science North to explore if municipalities would be interested in hiring Science North to deliver camp programs to replace or supplement existing municipal camp programs.

# **Digital Platforms & Online Engagement**

With the digital shift during the COVID-19 pandemic, in the spring 2020 Science North transitioned quickly and successfully to deliver programming and online content to engage its audiences. Over the past eight months (Mar.-Nov. 2020) Science North's social channels have increased with followers and have maintained a 3% engagement rate (industry standard is 2%). The digital programming implemented with Science North's "Bluecoat Talk Series" has resulted in new partnerships with science centres in Canada, the USA and Brazil to offer unique topics and content to keep our audiences engaged with over 470,000 reached. The pilot series of "Jenn Learns Stuff" shifted quickly to a bi-weekly program that had a capture rate of an average 1,500 viewers per online episode and an overall reach of 172,000. Providing online behind the scenes, DIY, relevant science content and live demonstrations of the Animal Ambassador enrichment sessions has resulted in 1.3 million viewers reached.

From the 2020 digital stats captured from the *We are Social* resource, Science North is successfully on par with 2020 digital trends and goals. Stats show: 67% of Canadians are social media users, totalling 25 million people, + 912 k or 3.8% growth; Facebook remains the most popular social media platform in Canada; 83% of online Canadian adults report having a Facebook account, followed by messaging apps (65%), YouTube (64%) and Instagram (51%); Facebook also has the highest percentage of daily users (77%), followed by messaging apps (69%) and Instagram (69%); and Facebook's share of users aged 18-24, a key demographic for numerous markets, dropped 11% (from 95% in 2017 to 84% in 2020). However, Facebook as a company, made up for the loss with a 22% increase in Instagram users aged 18-24 (from 67% in 2017 to 89% in 2020). Science North successfully increased its Instagram followers to over 10K during the past 8 months (Mar.-Nov. 2020) which is an increase of 11%.

During the pandemic and recovery from the pandemic Science North's focus in the digital world will remain a key priority to continue to be ahead of trends. From the *We are Social* data, TikTok is trending with an increase on that digital platform by 15%. Science North will introduce TikTok to its audiences and this will be a focus for 2021 to reach new audiences. Instagram will remain a main focus as this digital platform continues to grow (+14% in 2020) and offer new features to strengthen Science North's online communications. The YouTube account for Science North has grown and strengthened over the pandemic as Science North has been able to capture all of its social, educational and science videos for audience viewing after live programming. With YouTube growth of 5% and Science North capturing 2 million viewers the Centre will continue to focus on developing this platform.

The impact of the pandemic has highlighted the importance of a strong digital presence to connect with audiences and Science North has capitalized on this shift. Science North will continue to strive to be a leader in digital for science centres and attractions provincially and beyond.

## **Tourism**

Marketing during the pandemic and planning ahead to the 2021-22 tourism, Science North will focus on hyperlocal tourism and tourism within Ontario. The pandemic has shifted consumers' travel options to explore locally and provincially. Science North is well positioned in Northeastern, Central Ontario, Eastern Ontario and Southwestern Ontario markets, launching separate marketing techniques to draw these markets to its attractions with specific targeted tactics and promotions. In 2021-22, the major focus of the



Centre's marketing goals and targets will be showcasing Science North with a main narrative around experiencing Northern Ontario, and strengthening collaboration and partnerships with DMOs and RTOs across Northern Ontario positioning Science North well for post pandemic tourism opportunities. Science North will continue to foster and further develop its strong and long-standing relationships with Sudbury Tourism, Northeastern Ontario Tourism, Destination Northern Ontario Tourism, Destination Ontario, Attractions Ontario, Indigenous Tourism Ontario and other key organizations to increase visitation and positive economic impact to the region. Science North's strategic marketing partnership program drives greater awareness and appeal of the region and attractions, which will result in new and repeat tourism and economic benefits.

The summer of 2020, during the pandemic Science North saw an increase in southern Ontario tourists and day trippers accounting for close to 80% of its attendance. Continued focus on drawing local residents with the high percentage of visiting friends and relatives (the VFR market), combined with changing exhibitions and exhibit renewal, remain key for growing attendance. The spring and summer marketing tactics for Science North will attract and grow the tourism market with the launch of the special exhibition *Indigenous Ingenuity* in March 2021 and the relaunch of Under *the Arctic* at Dynamic Earth (spring 2021), with themed special events, ancillary businesses and auxiliary programming for varied audiences.

Lastly, the digital shift and presence that Science North has increased across all digital platforms during the pandemic has strengthened our reach and awareness across Ontario, Canada, North America and Internationally showcasing all that Science North has to offer. This will position Science North well in the years ahead as we begin to welcome back tourism with partner packages and tourism itineraries.

### **External Influences on the Science North Workforce**

As with most sectors across Canada and globally, the single largest external threat faced by Science North remains the effect of the COVID-19 pandemic. The impact on operations, the organization's resources and workforce is significant. Forcing operations to be ceased (as with the closure from March 14-mid-July 2020) or drastically reduced, and a workforce to shift from working onsite to largely off-site has created significant challenges on Science North, including but not limited to:

- Increased challenges associated with higher rates of mental health and wellbeing
- Adapting to the new norms of working remotely
- Keeping the workforce connected and engaged while largely being disconnected
- Coping with extreme levels of uncertainty

While these challenges are certainly not limited to Science North, they have created increased risks for the organization in potentially losing staff to other local organizations that are less impacted by COVID-19 by nature of their operations.

Greater Sudbury's unemployment, which saw very low rates in 2019, spiked in April-June 2020 due to COVID, but has begun to trend downwards again (see Table A). Sudbury's unemployment rate dipped in September 2020 falling to 8.5 per cent, down from 8.6 per cent in August.

Greater Sudbury added approximately 800 jobs in September 2020, but also saw an increase of about 1,000 people looking for work, which kept the unemployment rate fairly steady. For added context, as of September Sudbury ranks third in the province as having the lowest rate of unemployment among major cities in Ontario, trailing only Brantford (8.1 percent) and Thunder Bay (8.3 percent).



Table A – unemployment rates in Sudbury and Ontario - Jan.-Sept. 2020

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Sudbury	4.8%	5.5%	6.3%	7.5%	9.5%	10.1%	9.6%	8.6%	8.5%
Rest of Ontario	5.0%	4.8%	6.2%	8.2%	10.1%	10.0%	8.6%	7.9%	9.0%

http://thelabourmarketgroup.ca/wp-content/uploads/2020/11/LMG-Newsletter-October-2020.pdf

The challenge is that public facing organizations such as Science North continue to be proportionally harder hit over organizations that are less dependent upon visitors physically entering the workspace. This is compounded further when considering Science North as a science centre and major tourist attraction. In addition to the many operational challenges faced by Science North in the current environment, the risk of also losing key parts of its workforce to local organizations less impacted by the current pandemic cannot be overlooked. Addressing these through changes to the Centre's talent management strategies will be key in 2021-22.

#### International Sales

The COVID-19 pandemic has significantly impacted the attendance, revenue and operations of science centres and museums around the world and, more than eight months since the pandemic began, those that have reopened have done so with visitor attendance rates at 17% to 35% below pre-pandemic numbers. With a second wave of COVID-19 infections, many are starting to close once again.

The museum world, amid mass layoffs and furloughs as well as predictions of future budget cuts, is in "extreme financial distress," reported in the second National Survey of the COVID-19 Impact on United States Museums by the American Alliance of Museums (AAM), which received 850 responses from museums across the United States. Of the museums surveyed, 52% said they have six months or less of financial operating reserves to stay afloat; 82% said they had funds in reserve to cover 12 months or less. The situation in Canada is very similar with all science centres and museums experiencing significant challenges with their reopenings, with significant declines in attendance and revenues. Like Science North, they all play a pivotal role in the tourism industry, which continues to be impacted by the pandemic.

Science and technology centres, museums and attractions depend on earned revenue and will be severely challenged for the next several years. While travelling exhibits continue to be an important part of the recovery, exhibit pricing has been negatively affected as supply is heavily outweighing demand. Competitors are lowering their prices and venues no longer have the financial means, especially with lower attendance figures. In response to this, Science North is implementing, on a case by case basis, new pricing, leasing terms, installation processes and cancellation policies to help share the risk of leasing a travelling exhibit with the venue. Opportunities to tour manage travelling exhibits for other institutions may start to arise as more and more staff at science centres and museums are furloughed to deal with the financial implications of the pandemic, providing an opportunity for Science North to grow its existing portfolio, contributing to a consistent revenue stream to help support achieve the Centre's self-generated revenue goals.



New outdoor exhibits and online experiences have emerged to help enable institutions to connect and engage with their audiences outside of their venues. This highlights opportunities to continue to continue to research, develop and market new innovative experiences with a focus on repeat visitation, high visitor appeal and increased per cap visitor spending. Developing a new mobile software platform for Science North's Nature Exchange to engage visitors offsite is one example how Science North can take advantage of this new trend. Science North is also exploring partnerships with software developers to create new products to help support our industry partners in their COVID recovery and provide much needed new and recurring revenues to Science North.

The retail industry is also undergoing a major shift as traditional bricks and mortar locations are giving way to increased online sales, leaving shopping mall vacancy rates at unprecedented levels. Shopping malls owners are looking at opportunities to relocate out-parcel restaurants and concentrate them on-site to increase foot traffic. Adding a variety of entertainment offerings from interactive attractions for children to socially based activities for adults, creating new opportunities for Science North's travelling exhibits and other experiences.

High ranking topics related to science and technology are space and space exploration, climate change, dinosaurs and paleontology, Al and STEAM remain, however an increased focus is being placed on diversity, equity, accessibility, inclusion and decolonization. The upcoming replication of Montreal Science Centre's Indigenous Ingenuity travelling exhibit will be a timely addition to Science North's roster of exhibits. With the change in the Administration in Washington, we are already starting to see an increased focus on climate change, and museums around the world are prioritizing more climate change focused experiences that identify the United Nations Sustainable Development Goals. Science North's *Climate Action Show* object theatre will provide a turn-key exhibit product for international clients while supporting exhibit renewal at Science North and the goal of doubling international sales.

Science North is one of Canada's largest producers and exporters of science exhibits and shows to clients around the world. Science North's International Sales have and will continue to be impacted by the devastating effect the COVID-19 pandemic is having on science centres and museums. Throughout the pandemic the Centre has stayed connected to its clients and potential clients to understand the impact of the current environment on their operations and plans.

## **Travelling Exhibition Trends**

Travelling exhibitions are a key way for science centres and museums to implement significant change to visitor experiences in a cost-effective manner. For 18 years, Science North has developed, produced and toured exhibitions across North America and globally.

In a survey of 29 travelling exhibits as managed by competitors, 17 exhibits do not have leases for at least 3 months in 2021. Another exhibit provider has offered exhibits for free from November 2020 through June 2021.

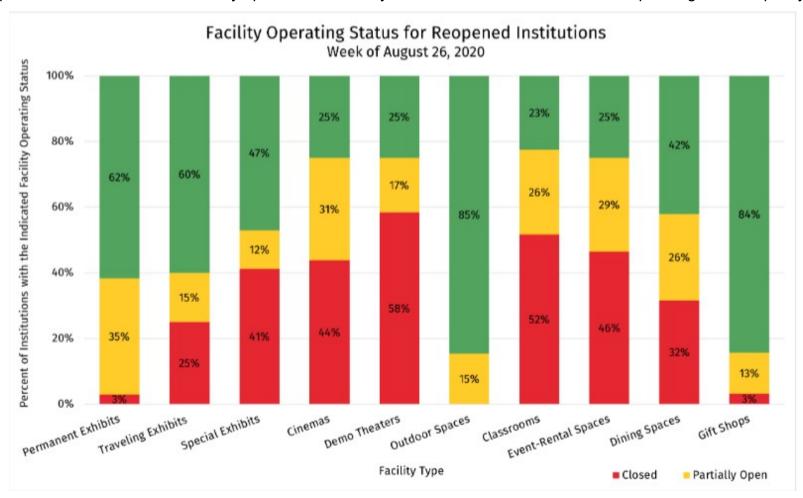
Host locations have ranked flexible payment options, new cancellation policies and COVID specific guidelines for cleaning and maintenance specific to the exhibit as must-have features when booking travelling exhibits in the future. Features such as low-touch experiences and COVID communications specific to the exhibit, rated the next highest.

As reported by clients, travelling exhibit plans have been cancelled or postponed. Many clients are hesitant to book short-term due to revenue shortfalls and the uncertainty around whether or not their organizations will close again.



Facility Operating Status: Capacity - The data below represents all reported weekly data from May 13- Aug. 26, 2020, representing 52 reopened institutions. The chart summarizes the status of each facility's capacity, whether at fully open, partially open, or closed.\*

While stated previously that outdoor spaces, permanent exhibits, and gift shops have the highest open operating status among facility types, in the average overall data (not shown), fewer than half of institutions report that permanent exhibits operating at full capacity, while more than half of reopened institutions report that outdoor spaces and gift shops are fully operational. On the other hand, while event-rental spaces and demo theaters have the highest closed status among facility types, only 13% of institutions report that their classrooms are fully operational and only 11% of institutions have cinemas operating at full capacity.





\* A fully open operating status indicates that the facility type is open to the public and currently has minimal to no restrictions for visitors; a partially open operating status indicates that the facility type is open to the public, but there are current restrictions in place for visitors.

#### **Economic Outlook**

The COVID-19 pandemic has had significant economic impacts across the globe as lockdowns and heightened restrictions are projected to reduce GDP by 4.7% in 2020. In Canada, the sharpest impacts were observed throughout the months of April and May when the country was locked down. As of September 2020, the economy has returned to 96% of February levels. The accelerated recovery can be attributed to Federal relief funding, however, the final recovery gap of 4% is expected to occur gradually over time. The current regulations and health measures in place should eliminate the need for an additional complete shutdown. However, given the rising number of cases as we are in the second wave of the pandemic could lead to localized, regional shutdowns which will impact the economy overall. Ontario is suffering from a high rate of COVID-19 cases and will not escape a deep recession despite a relatively robust performance in professional services. The Tourism-related industries will continue to face hard times.

#### **Science Communication**

2020 and 2021 are earmarked as opportunities for Science North to be leaders in the science centre and science museum field in addressing the current Infodemic by ensuring visitors of all ages are 'inoculated' against misinformation and disinformation (MDI). By activating a variety of strategies to increase the STEM literacy of visitors of all ages, Science North can be key to building a data-literate audience, armed with the knowledge to differentiate between fake and factual information.

The most significant trend being addressed by science communication experts in 2020 is tied to addressing the 'Infodemic'. A relatively new term, this refers to an overload of information, often false or unverified about a problem, especially within a major crisis. The internet, and social media in particular, have made it much easier for infodemics to spread.

As a trusted science communication facility, Science North has key strengths and opportunities to address the Infodemic and MDI. There is a direct pipeline with daily access to people of all areas: they come to Science North attractions and participate in outreach and digital activities, choosing to spend their leisure and learning time engaging with Science North experts. Science North has access to researchers locally, provincially and nationally, who are open, willing and able to share their knowledge across diverse platforms. Networks include not only scientists but civil society, policymakers, industry and other groups who also have a keen interest in addressing MDI. Science North 'Bluecoats' (science communicators) engage people with STEM, and have years of experience in doing so. Science North audiences can take time to comfortably explore, question and unpack complex ideas, and this is a key asset in itself.

#### **Current Science**

As science centres and science museums globally address the challenge of the Infodemic, Misinformation and Disinformation with their audiences, they also seek ways to bring to the forefront the most current science their visitors seek. 2020 saw a continued interest in a number of STEM fields, particularly the following:



- •<u>Misinformation and Disinformation (MDI) around COVID-19</u>: Scientific knowledge of SARS-CoV-2, causative agent of COVID-19, has been used by health care experts and governments to shape protocols and policies to protect people. This knowledge is constantly changing as we learn more about this disease. That, coupled with the uncertainty of how to control and end the pandemic, has resulted in information being misunderstood or misconstrued by certain segments of the population. Due to the popularity of social media, incorrect information or misinformation can disseminate very quickly on a global scale. Science centres and similar science communication centres are trusted places where visitors can access scientifically sound and current information to inform their decisions.
- •<u>Vaccines for COVID-19</u>: The major science highlight of 2021 will be the emergence of COVID-19 vaccines. Over 100 vaccine candidates are currently being evaluated and some are expected to be ready for the general population by mid-year. The speed at which these are being developed is unprecedented, as are the new technologies being used to create these novel vaccines. Questions about vaccination timelines, which populations will be first vaccinated, and safety, must be addressed to general public audiences to ensure the effectiveness of vaccines. Medical experts and science communicators must be at the forefront to address these questions, explain the science behind these vaccines and alleviate concerns (i.e. vaccine hesitancy) to reassure the public that vaccines are the best method to end the pandemic.
- •The Changing Climate: Climate change remains one of the most important scientific topics of our time. The effects of global warming around the world are unfolding, including unprecedented wildfires and storms. Rather than shifting attention away from climate change, the global pandemic has reinforced three important ideas relevant to acting on climate change: one, we need to act as one united world to avoid predictable catastrophes *before* they arrive; two, inequality between people increases the vulnerability of some populations and limits the ability to respond to existential threats; three, science is our best survival tool.

Science North's research to inform the development of its new multimedia object theatre *The Climate Action Show,* showed that most Science North visitors recognize climate change has human-related causes and are ready to act but are still unsure of what to do. Climate change is a topic currently covered by many science museums and science centres around the world. Science North has a key role and opportunity to play in disseminating scientific information to the general public. Providing scientific information is only the first step. We must also relate it to people's everyday lives to provide relevance, context and inspiration. The consensus among climate science communicators is that messaging around climate change is most effective in terms of learning and action when it provides hope. One way to create hope is to outline viable solutions with clear actions. For example, by communicating to visitors that using gas in private vehicles is the largest contributor to carbon emissions in the City of Greater Sudbury (Community Energy and Emissions Plan, 2020), presenting the low emissions alternatives is required, such as walking, biking, public transit, and electric vehicles.

From a Canadian perspective, the impacts of a changing climate on the Arctic are extensive and are a cornerstone to the science being conducted in Arctic regions. In 2021, Science North will have an excellent opportunity to communicate Canadian Arctic science by hosting the *Indigenous Ingenuity, Under the Arctic: Digging into Permafrost* (at Dynamic Earth) and *Cory Trépannier's Into the Arctic* travelling exhibitions. Dynamic Earth has worked with permafrost researchers at Laurentian University on a permafrost exhibit to enhance its 2021 exhibition *Under the Arctic: Digging into Permafrost*. Laurentian University and 11 other Canadian Universities are undertaking a project to better understand the permafrost in Canada and how climate change will affect it. Dynamic Earth will also offer curriculum-linked programs and workshops to help generate awareness of the changes and challenges related to climate change, permafrost and the soils.



•<u>Modern Mining</u>: Operating a science centre dedicated to mining and earth sciences, Dynamic Earth, it is important for Science North to always have a finger on the pulse of mining. As Dynamic Earth develops its next expansion, *Go Deeper*, it's crucial to tap into the trends and forecasts around mining and earth sciences. The mining sector remains in a cycle of active technology development for more effective ways to analyze, explore and develop ore bodies that are deeper, narrower and more complex. The evolution of visualization technologies including virtual reality (VR) and augmented reality (AR) are primary areas of focus for development, training and planning for new exploration and mine developments.

With mines looking to modernize, the *smart mines* of the future will become digitally interconnected, allowing more efficient, deeper and safer mining to take place. Automation will be key to improving safety, productivity and lowering environmental impacts. This new trend in mine modernization will be key in attracting youth seeking career paths in STEM to the mining industry. The environmental goals in the industry are also rapidly evolving, with a common goal for the Canadian mining sector to be carbon neutral by 2050. The goal will be achieved through the design and innovation of new equipment and tools such as the electric mine vehicles and the 'electrification' of mines. These will also reduce diesel emission, increase safety and decrease ventilation and cooling costs.

The North American modern mining industry is embracing a more holistic approach when measuring their success. Though safety and profit form their top metrics, diversity, inclusion, environmental and social sustainability are taking on increasing prominence. Within the next 10 years the mining sector will hire between 110,000 new staff to fill the projected shortfall, drawn from the most diverse pool of resources in Canadian history. This will include Indigenous, female and new immigrant workforces, an audience that Science North is actively developing deeper engagement with.

## **Outdoor Experiences**

As a result of the pandemic, 2020 saw a significant growth in all cultural attraction markets seeking to augment outdoor experiences that engaged their audiences in safe and nature-based offerings. What empowered outdoor events to be successful was a constant, seasonal/annual change of outdoor experiences. Taking advantage of guided outdoor experiences that were customized for smaller groups proved successful in many sectors and drove new and repeat visitation. back this up with #s

Hosting events remain an important piece to Science North's operations. It ensures continued engagement with diverse audiences with great science content and potential revenue generation depending on the event.

Citizen Science opportunities based in the outdoors saw growth and engagement in areas such as butterfly counts, plant species counts and tracking of threatened or endangered species. Harnessing online tools such as the iNaturalist app, citizens of all ages and levels of scientific skills and knowledge are able to participate in local, national and global projects to support scientific research by providing real, data rich observations. The trend of growth in citizen science engagement continues, and is providing opportunities for deepened partnerships and engagement with formal research institutes, inspiring and activating new generations of young people engaging in STEM.

Outdoor experiences tied to astronomy and amateur viewing saw substantial growth in 2020. The Royal Astronomical Society of Canada (RASC) noted unprecedented (not seen since the Halley's Comet events of 1986) and significant growth in national chapter engagement, including online events, and in enthusiasts seeking to own equipment and seek knowledge building experiences such



as star parties. Further, the partnerships between local astronomy groups with skills in Western astronomy partnering with Indigenous astronomy knowledge keepers increased and created new offerings outdoors, especially tied to special astronomical events.

Halloween is a significant visitor experience at Dynamic Earth that drives substantial attendance and revenue during a time when attendance and revenue would otherwise be low. The growth and diversification of Halloween-themed experiences at cultural attractions across North America continues to present increased opportunities, especially outdoors. As with indoors science centre experiences, the recurring theme is a state of annual change to encourage repeat visitation and to drive attendance by new audiences. Current trends driven by the pandemic show significant growth in drive-by experiences allowing for enclosed bubbles of visitors to access content.

Many science centres, science museums and zoos provided some type of Halloween experience during the pandemic. Some opted for drive-thru experiences, while others like Dynamic Earth elected to provide their experiences outdoors while limiting access to buildings on their properties. Most, if not all, moved to a timed, online ticket purchasing option in order to manage capacity levels. Halloween 2021 is projected to continue the trend to outdoor experiences such as outdoor haunts, carved pumpkin displays and multimedia shows.



Q4 Projection - 2020-21 Performance Measures

# Q4 Projections on 2020-21 Performance Measures - Science North

Performance Measure	Original 2020-21 Target	Revised 2020-21 Target (Aug. 2020)	Q4 Projected Result on Achieving Revised Targets	Rationale for original performance measure/objective
Budget Achievement	Achieve or exceed financial budgeted targets	\$1.4 million loss	As a result of the <i>Emergency</i> Stabilization Funding, Science North is projected a minor surplus of \$157,895.	Science North has proven entrepreneurial expertise as to generating revenue aimed at minimizing the gap that has occurred due to a static operating grant over the past 11 years.
Customer Satisfaction	Achieve 95% overall customer satisfaction for Science North, Dynamic Earth, outreach, science camps and school programs.	Science North: No change to original target  Dynamic Earth: Will not achieve target, as Dynamic Earth closed as of March 13, 2020 and is not targeted to re-open until Feb. 13, 2021.  Outreach, Science Camps and School Programs-No change to original target	Science North: Expecting to exceed goal of 95% (based on 2.5% survey capture). Results to date are 99.7%.  Dynamic Earth: Will not achieve target, as Dynamic Earth will remain closed to March 31, 2021 and there is no capacity to survey visitors.  Outreach, Science Camps and School Programs-Projecting to achieve 95% target.	Customer satisfaction leads to loyalty, repeat visitation and membership growth, which is essential in achieving overall attendance goals.
	Achieve a total of \$3,115,050 in attractions and membership revenue with an overall attendance of 284,540, and \$1,661,449 in on-site businesses and parking revenue.	Achieve a total of \$529,287 (decline of \$2,585,763 or 83%) in attractions and membership revenue with an overall attendance of 24,027 (decline of 260,513 or 92%) and \$151,641 (decline of \$1,509,808 or 91%) in on-site businesses and parking revenue.	Projecting to achieve \$488,300 in attraction & membership revenue based on overall attendance of 21,452. Onsite businesses projected to achieve total revenues of \$66,621.	Science North's self generated revenue includes attractions, membership and on site business revenue which make up 35% of its self-generated revenue and 23% of its total revenue. The success of these onsite revenues form part of the self generated revenue that is critical to fund Science North programs. In total, Science North generates \$13.8 million in self generated revenue, or 66% of its revenue, to maintain operational requirements.
External Sales Revenue	Achieve an overall external sales net profit of \$689,423.	Achieve an overall external sales net profit of \$453,402	•Projecting to achieve net profit of \$292,000 versus budget. Shortfall is due primarily to the timing of the Climate Action Show project start dates.	Science North's external sales business revenue makes up 34% of its self-generated revenue in Science North's operating budget.
Grants Revenue	Achieve government funder commitments of \$4M in capital grant revenue for visitor experience renewal.	No change to original target	•Achieved \$1,313,000 to date	These revenues are essential for the creation and implementation of new visitor experiences. Additionally grants revenue make up 12% of self-generated revenue in Science North's operating budget.

New Visitor	Achieve new audiences adult and	•Achieve attendance of 1,400 (decline	•Will not achieve. Projecting	New and engaging customized experiences for
Experiences	youth participation attendance target	of 4,400 or 76% ) and revenue of	attendance of 212 (decline of 5,588	audiences in these targeted demographics
	of 5,800, and revenue of \$84,750	\$30,000 (decline of \$54,750 or 65%)	or 96%) and revenue of \$3,446	encourage repeat visitation and membership
	through new and renewed	through Nightlife on the Rocks (5	(decline of \$81,304 or 96%) through	growth. These are essential in achieving overall
	programming and exhibitions.	events) and student events (2 events).	Nightlife on the Rocks (1 event).	attendance and revenue goals.
Science Experiences	Deliver 100 e-workshops in	•Deliver 100 e-workshops in	•Will deliver 100 eworkshops in	Involving Indigenous students in science
Delivered to First	Indigenous schools. Deliver 14	Indigenous schools	Indigenous schools	programs is a key priority for Science North.
Nations in Northern	teacher workshops engaging 120	•Deliver 14 teacher workshops	•Projecting to deliver 8 teacher	Given Indigenous people form 12% of the
Ontario	teachers. Deliver 40 programming	engaging 120 teachers	workshops engaging 100 teachers.	Northern Ontario population and are the fastest
	days of summer science days in 30		•Pivoted from delivering in person	growing population in Ontario, Science North
	First Nation communities. Engage	Note:	Summer Science Days programming	has made it a priority to deepen our engagement
	5,000 people in the <i>Indigenous</i>	•Unable to deliver 40 programming	to delivering At Home STEM kits to	with Indigenous audiences.
	Ingenuity exhibit presented in	days of Summer Science Days in 30	7,280 First Nation youth	
	partnership with the Thunder Bay Art Gallery.	First Nation communities due to		
	Bay Art Gallery.	COVID-19 and the closure of the		
		communities to outside visitors		
		•Will not engage 5,000 people in the		
		Indigenous Ingenuity exhibit presented		
		in partnership with the Thunder Bay		
		Art Gallery during 2020-21. Timeline		
		has changed due to COVID-19.		
		Indigenous Ingenuity will be likely be		
		exhibited in Thunder Bay in 2021-22.		
Outreach Experiences	Deliver public outreach in 70	•Unable to deliver public outreach in	•Unable to fully deliver on the goal of	As Science North fulfills its mandate to be
in Northern Ontario	Northern Ontario communities and	70 Northern Ontario communities due		Northern Ontario's science centre, it continues to
	engage 40,000 students in school	to COVID-19 and cancellation of all	outreach due to the impact of the	provide opportunities for students and families to
	outreach programs.	events during summer 2020	COIVD-19 pandemic and the	participate in science experiences right in their
		•Unable to fully deliver on the goal of	closure of schools. Schools continue	Northern communities.
		40,000 students through school	to remain closed to visitors during	
		outreach programs due to the impact of		
		the COVID-19 pandemic, including	delivering programming outdoors	
		the closure of schools from April-June	reaching 1,179 students through 32	
		2020.	programs.	

Digital Presence	Achieve 550,000 in unique visitors to	Science North is shifting its strategy	•Will achieve target based on the shift	Customers' preference for digital content and
	the Science North website.	away from primarily delivering content	of online/digital demand duirng the	experiences has grown exponentially and Science
		on its website to meeting new	pandemic. With increased online	North must increase its presence in this area to
		expectations from the public for	programming and relevant content	remain relevant.
		relevant, timely and engaging content	SN will engage its audiences,	
		hosted on social media channels.	attracting new followers across all	
		Revised target for 20-21: Overall	social platforms.	
		increase in the number of social media		
		followers by 3% across four major		
		platforms: Facebook, Twitter,		
		Instagram and YouTube.		
Green Initiatives	Complete plan to address R22	No change to original target	•Phase 1 contract awarded, work is	With the phasing out of R22 as a refrigerant
	environmental impact.		underway and on track for	across Canada, new energy efficient air-handling
			completion.	units will be explored and expected to produce an
				estimated increase in efficiency of 80% to 95%,
				resulting in potential energy savings of 15%.
Organizational Culture	Achieve a 10 point (20%) increase to	No change to original target	•Will not achieve this target. 2020-21	An engaged and motivating work culture will
	the overall employee engagement		Engagement Survey delayed until	continue to maintain and attract skilled workers.
	score from 46 to 56 in the 2020-21		resumption of regular operations.	
	engagement survey.			
Philanthropy	Achieve \$620,000 in corporate	Achieve \$300,000 in corporate	•Projecting to achieve \$112,767 in	Philanthropic support is an important source of
	sponsorship revenue.	sponsorship revenue	corporate sponsorship revenue	self-generated revenue for Science North.
			_	



# **Business Plan Financials:**

Operating Forecast (through 2023-24 - with 20-21 projections)

	2018-19	2019-20	2020-21	2020-21	2021-22	2022-23	2023-24	2024-25
				PROJECTED at				
AGENCY: Science North	Actual	Actual	BUDGET	February 2021	DRAFT BUDGET	Forecast	FORECAST	FORECAST
PROVINCE OF ONTARIO	C 939 000	6 939 000	6 939 000	C 828 000	C 939 000	C 929 000	C 939 000	6,828,9
MHSTC Operating (including maintenance) MHSTC <i>ESF</i>	6,828,900	6,828,900	6,828,900	6,828,900 3,074,929	6,828,900	6,828,900	6,828,900	0,828,5
MHSTC OCAF	68,400	3,318	90,000		90,000	50,000	0	50,0
Other (specify program name, ministry & funding period)	08,400	3,310	30,000	80,082	30,000	30,000	0	30,
MHSTC Summer Experience	29,264	36,580	109,740	147,967	30,000	30,000	30,000	30,0
MHSTC - Celebrate Ontario	0			0				
MHSTC - International Market Development				0				
MHSTC - Ontario 150				0				
Other Provincial (Ministry of Education)	1,170,266	336,850	1,500,000	1,700,000	0	0	0	
Other Provincial (Ministry of Labour, Training and Skills Development)			428,870	193,365				
Other Provincial - NOHFC, OTMPC, YMCA, MNDM		68,943	14,000	89,631	0	20,000	20,000	20,
> TOTAL PROVINCIAL FUNDING	8,096,830	7,274,591	8,971,510	12,121,474	6,948,900	6,928,900	6,878,900	6,928,
OTHER GOVERNMENT  City of Greater Sudbury, Canadian Heritage, HRSDC,								
ISERC, CanCode, FEDNOR	1,875,935	1,631,533	1,591,720	2,156,340	569,500	608,355	608,945	609,
> TOTAL OTHER GOV'T FUNDING	1,875,935	1,631,533	1,591,720		569,500	608,355	608,945	609,
	2,513,630	2,222,233	2,232,123	_,,	000,000	333,333	330,610	
ELF GENERATED REVENUES								
Membership Fees	592,048	574,097	328,086	246,970	323,613	420,769	522,184	623,
ndividual Donations & Gifts (with book value)	19,916	14,553	75,604	36,350	75,000	150,000	150,000	150,
Corporate Sponsorships	177,759	118,313	228,500	109,050	351,337	482,843	530,400	613
Admissions	2,221,847	2,066,602	201,201	241,330	356,133	1,021,187	1,315,121	1,315
Special Events	58,895	89,685	75,000	5,717	50,000	75,000	75,000	75,
acilities Rental	248,513	256,803	68,470		117,739	309,323	329,521	345,
ducation/Program fees	1,396,148	1,490,449	381,826		922,849	1,897,598	1,907,720	1,999,
Sales of Programs/Products/Expertise	1,418,790	1,773,701	2,496,009		1,750,550	3,277,092	4,302,600	4,504,
Restaurant/Food Service	793,086	747,099	117,752		94,442	363,933	530,842	837,
Gift Shop/Retail	527,555	510,559	46,616		84,918	234,824	352,236	577,
Parking nvestment Income & Other	91,587 264,287	89,059 256,098	3,572		69,090	40,000 91,293	70,000 91,596	100, 171,
Non-Government Grants	204,287	230,098	3,372	-1,793		91,293	91,390	1/1,
Fund transfers - restricted funds	778,683	-445	100,608					
Other Funds transfer non-restricted funds:	776,063	-443	100,608					
> TOTAL SELF GENERATED	8,589,114	7,986,572	4,123,244	2,720,183	4,195,671	8,363,862	10,177,220	11,313,4
> TOTAL REVENUE: 1+2+3	18,561,879	16,892,696	14,686,474	16,997,997	11,714,071	15,901,118	17,665,066	18,851,
XPENDITURES								
alaries & Benefits	10,490,085	10,199,637	8,538,191	8,364,154	8,336,190	9,562,020	10,345,782	10,846,
rogram Delivery	3,797,139	2,842,616	2,589,839		1,216,269	2,292,475	2,398,484	2,499,
dministration	893,515	827,940	653,655		737,571	946,125	988,658	1,071,
Restaurant/Food Service	428,609	453,374	75,822		49,694	173,995	242,375	366,
Sift Shop/Retail	277,368	231,611	30,252		40,180	119,379	179,069	294,
Occupancy/Lease	52,965	56,540	61,680	66,835	61,680	64,797	66,093	67,
Maintenance/Utilities	1,225,191	1,275,153	1,269,608	1,156,308	1,311,322	1,546,019	1,561,476	1,577,
leet & Security	195,820	199,939	165,692	163,305	171,500	219,601	223,633	227,
undraising & membership development	112,280	41,669	30,931			46,234	46,473	46,
Marketing & Communications	607,371	560,843	662,026		324,978	426,334	413,572	430,
Cost of Programs/Products/Expertise	1,199,605	969,057	1,603,352		792,817	1,389,636	1,649,391	1,763,
fund Transfers - restricted funds	-23,748	246,597	409,902	773,084	268,102	497,631	499,628	435,
Other S> TOTAL EXPENDITURES	10.356.300	17,904,976	16 000 050	16 040 403	12 220 502	17 204 247	10 614 634	10.027
VIOLAL ENFLIGHTURES	19,256,200	17,904,976	16,090,950	16,840,102	13,336,503	17,284,247	18,614,631	19,627,
et Income Surplus/(Deficit): 4-5	-694,321	-1,012,280	-1,404,476	157,895	-1,622,432	-1,383,129	-949,566	-776,
ttendance	268,529	240,401	24,027	27,492	31,275	123,259	179,991	281,
ttenuante	208,529	240,401	24,027	27,492	31,2/5	123,259	1/9,991	281



# Risk Assessment

Risk Assessment 2021-2022 - updated Apr 2021								
Related Strategic Priority/Objective	Risk Statement	Risk Category	Risk Assessment	Exisiting Controls	Risk Rating	Risk/Mitigation Funded?	Risk Owner	Further Mitigation/Action Plan
What strategic priority / objective is this analysis intending to support	Root cause, risk and potential impact.			What controls cuurently exisit to minimize or reduce the risk		Has the cost of risk mitigation or entire risk been included in budget allocations?		
Risk Category:	Strategic/Policy/Performance - ris program objectives whose achiev	sk that strategies and policies fail to achieve requivement is highly dependent on other initiatives.	red/targeted results and do not	properly support business needs; include stakeholder a	nd public perception/rep	outation risks; potential unde	rachievement of perforr	nance targets; and
Self Generated Revenues: Financial pressures in light of the COVID-19 pandemic and its impact on attendance and related revenues.  Program/Services Delivery: The COVID-19 pandemic will impact the delivery of SN's mandate, strategies, goals and targets, with reduced attendance and reduced revenues.	In-person attendance to Science North's attractions is a key driver of financial performance. It generates revenues from admission, ancialliary purchases, membershipsit's a key driver to financial success. With continued challenges to having in- person visits, the revenue decline will be significant. At the same time, increases from other sources of revnues will be minimal - the operating support from MHSTCI, school memberships, programs and services The continued impacts of the COVID Pandemic is challenging Science North's delivery of programs and services. The uncertainty of when in-person activities will continue to impact Science North's performance.	Delivery of programs, financial performance.  Delivery of programs, financial performance.	Likelihood: Almost Certain Impact: Very High  Likelihood: Almost Certain Impact: Very High	The organization has laid off some of its workforce on a temporary basis. Additional layoffs will occur, facilities will remain closed and programs and services, including to other communities in Northern Ontario, will be suspended. Science North's Strategic Plan has a goal on increasing self generated revenues. If these are not secured, new activities would not be implemented and current program levels would be scaled back.  Revised performance measures are in place to track progress. Given the uncertainty, over the next 8 months corrective action will be taken where necessary. This will inleude a focus on digital strategies and engagement.		The budget will need to be reviewed and amended.	CEO, Senior Executive Team  All Senior Staff	Continued focus on reducing costs and growing revenues  Delivery of programs, financial performance.
Risk Category:	Governance/Organizational - incl	ude risks related to the organizations structure. ac	countabilities. or responsibilit	es; risks that culture and management commitment do n	ot support formal struct	ures. include controllership/:	accounting risks; and is	sues raised by staff, part
Board: A strong governance of Science North led by a full Board complement members. Delays in appointments leads to inefficiencies and challenges with Board enagegment in the community.	The Governance of Science North and its responsibilities outlined in the MOU and Mandate letter is directly linked to a fully constituted Board. Any delays in filling vacancies can adversely affect its ability to maintain an engaged Board.	Governance and Accountability	Likelihood: Possibly Impact: Moderate	Science North is actively engaged in recruiting new board and committee members to grow and diversify the makeup and size. Timely approval of recommended Board Members required by Ministry.	.,	Yes	Board Chair, CEO	Ensure a strong link between the Board skills matrix, expiry of terms and ongoing consultation with the Minister's office.
Risk Category:	Legal/Compliance - include risk o	f litigation, risks from non-compliance to applicat	ele laws, acts, and policies, and	risks related to contract management				
The need to create a safe environment for staff and visitors has created challenges in the operations of Science North's attractions. Physical modifications and staffing requirements have increased operating costs. The additional resources required to do this negatively impacts resources available to implement other strategic priorities.	The expanded stay-at-home orders and continued impacts of the Pandemic will challenge the deployment and use of Science North's human resources.	Delivery and Operational	Likelihood: Almost Certain Impact: Very High	Balance operational needs and procedures while ensuring compliance with Public Health recommendations. Seek alternative delivery mechanisms, secure funding to support these increased costs. Investigate best practices and work with the Ministry to ensure reports and systems can be more easily implemented. Continue to train staff and monitor the latest updates.		Yes	Director of Finance, Senior Managers	ongoing

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# Risk Assessment Worksheet

Reduced attendance results in reduced self generated revenues. Increased competition for leisure time and spending continue to lower the number of visitors to the Centre's attractions during key periods. Marketing efforts need to focus on the entire tourism market.	As the economy reopens and the impacts of the Pandemic subside, there will be an increased level of competition for visitors. There will also be a focus on 'safe' experiences, that may inleude a greater emphasis on the outdoors.	Delivery and Operational	Likelihood: Likely Impact: High	Implementation of new visitor experiences and new programming at different times of year. Targeted and innovative marketing initiatives to existing and new audiences and markets. Increased partnerships with tourism organizations such as Destination Northern Ontario, Northeastern Ontario Tourism and Suddury Tourism to	Partially	Science Director, Director of Development, Senior Managers	In place and ongoing
on the entire tourism market.	on the outdoors.			increase awareness of the region's offerings. Flexible part- time staffing plan that allows for adjustments when necessary.			
Demographic changes in Northern Ontario: Broadening the appeal of Science North's programs and services to a wider audience.	Documented aging of Northern Ontario population results in fewer school aged children and fewer families with young children - the main demographic for Science North - therefore reduced market pool from which to draw for traditional attendance.	Delivery/ Operational	Likelihood: Likely Impact: Moderate	Implementation of new visitor experiences and new programming targeting new audiences, with innovative marketing initiatives.	Partially	Science Director, Director of Development, Senior Managers	In place and ongoing
ttendance Shifts: Change in visitor ceision making and purchasing ehaviors as a result of COVID-19 andemic and reduction in appeal to ather in primarily indoor facilities	The Leader in Science Engagement, Ultimate Customer Journey	Delivery and Operational	Likelihood: Almost Certain Impact: Very High	Spending more resources in the area of digital strategy to keep up with visitor digital trends has potential impact on the visitor experience and programs offered. Implementation of digital strategies and content using a holistic digital approach as visitors switch between many platforms and devices during their decision making process and ecommerce purchases. Messaging including safety measures and protocols implemented at Science North attractions due to COVID-19.	Yes	Director pf Development, Senior Manager Marketing	Develop new visitor experiences that appeal a wider demographic.
Veak economy in many Northern Ontario communities, especially hard hit y the COVID-19 pandemic	Poor economy in Northern Ontario negatively affects Science North's outreach and summer camp initiatives throughout the North specifically the affordability.	Delivery and Operational	Likelihood: Almost Certain Impact: Very High	Secure funding and develop partnerships in Northern towns that could help reduce delivery costs, secure grants and foundation support for operations, build endowments to fund participation by children of disadvantaged families, and careful selection of towns where camps are delivered to ensure a strong participation.	Partially	Director of Education and Northern Programs	In place and ongoing
The export of Science North's products and services: Slow recovery of atternational economy as a result of OVID-19 pandemic	Science centres and museums (internationally) continue to be impacted by the COVID-19 pandemic. Many will remain closed for the foreseeable future. This will result in less spending on expansion projects and acquisition of new visitor experiences. Fewer external sales projects result in lower self generated revenues for Science North.	Delivery and Operational	Likelihood: Amost Certain Impact: High	Continue relationship development with clients in all markets to ensure Science North is well positioned for securing projects once financed. Ensure external sales products are positioned as leading edge and above the competition's. Increase awareness of Science North's products in non-traditional markets and implement dynamic pricing to meet the market needs.	Partially	CEO, Senior Manager International Sales	A new export/sales strategy to leverage relationships and oportunities

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# Risk Assessment Worksheet

Risk Category:	Workforce - include workforce co	mpensation, labour relations and human resources	risks; workforce data showir	g high turnover, imminent retirement, high illness rate	s, staff complaints			
Maintaining a skilled and talented workfoce: Availability and retention of necessary skills from local labour markets to sustain current and future business models.	As a result of COVID-19, most hourly staff have been laid off. This is an important and key part of our workforce. Many are long-term employees with experience and skills required for Science North's success. As the economy recovers and Science North continues to experience operating challenges, it's anticipated many will seek employment elsewhere. This loss of talent will further impact Science North's capacity to recover. The competitive labour market for highly skilled talent and limited ability to offer and sustain higher wage rates to attract talent impacts Science North's ability to secure the resources we need to execute on our strategic and operational plans.	Workforce	Likelihood: Almost Certain Impact: High	Regular talent reviews, increased internal growth opportunities, targeted professional development, increased feeder pools through expanded volunteer and co-op programs, and leveraging internship and partnership opportunities to access talent and grow the talent pool. Science North will require resources to retain this talent pool.		Yes	Director, HR & Talent Management	In place and ongoing
Maintaining a skilled and talented workforce: Workforce retirement.	Science North continues to experience the impacts of retirement of key talent and operational continuity. With approximately 20% of its full-time salaried staff over the age of 55, it is imperative Science North takes a strategic approach to mitigating against the loss of continuity and slowing down of operations as new staff ramp up.	Workforce	Likelihood: Likely Impact: High	Formalized succession planning strategies, including investments into increased leadership development, creation of innovative programs to help retain experienced, retiring staff as advisors and phased retirement approaches that facilitate knowledge transfer.		Yes	Director, HR & Talent Management	In place and ongoing
RISK Category:  Lack of standardization in information management and IT strategy - changing technology.	Challenging to support and manage multiple versions of hardware, software and operating systems. Ongoing investment in new technology and software is needed to stay competitive and efficient.	Information Technology	Likelihood: Possibly Impact: Moderate	IT Strategy is being updated on a regular basis and projects implemented as funds are secured. Efforts to secure funding from non-traditional sources are ongoing.		No	Director of HR & Talent Management	In place and ongoing
Aging infrastructure and insufficient funding commitments for ongoing capital allocation.	Science North's infrastructure funding needs far outweigh the average Ministry funding, which has been on average \$1M over a five year period. The identified renewal requirements are on average \$6M per year (source VFA). These renewal requirements are critical to ensure Science North's facilities operate efficiently while remaining compliant with regulatory requirements, avoiding obsolescence and ensuring a safe environment.	Information Technology	Likelihood: Possibly Impact: High	Continue to work with Ministry of Heritage, Sport, Tourism and Culture Industries to establish longer term planning horizons. Seek and secure new funding sources to leverage Ministry's funding, allowing for more capital renewal. If these are not secured, efficiencies will be lost increasing operational costs, and funds will need to be drawn from reserves to implement critical infrastructure projects. Both of the above have an impact on Science North's ability to continue to offer new activities and current program levels for its audiences.		No	Director of Finance	In place and ongoing
Risk Category:	All other Risks - Risks that do not providers.	t fit in any of the above categories. Corporate Social	Responsibility concerns - Er	ovironment, Climate Change, Energy Management , He	alth Promotion, Waste Reduction	on. Include risks relating	g to third parties such as	service or goods
	• • • • • •							

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# Contingency Plan



# **Contingency Plan**

Achieving Strategic and Business Targets. Science North monitors and reports on its Strategic Plan on a consistent basis. Action items are reviewed and shared with senior staff and Board members on a regular basis, allowing the Centre to realign where necessary. Further to these action items, the Centre's balanced scorecard aligns with and monitors the progress towards the achievement of Science North's five strategic priorities. The balanced scorecard is one of the organization's main reporting and analysis instruments. The scorecard is updated on a quarterly basis and results are communicated throughout the organization, thereby ensuring that risk areas are identified early and all levels of the organization are involved in corrective action. This method was proven throughout the 2020-21 fiscal year as Science North continually adjusted to adapt to the unknowns of the COVID-19 pandemic.

**Information and Information Technology.** Science North has established robust protocols to safeguard its critical information and information systems. Those protocols include regular information system back-ups, ongoing cyber security, threat detection and prevention procedures, and a file sharing and centralized backup solution – all based on ongoing system review recommendations. Science North will actively explore enhancements to its user systems, network infrastructure, cloud based strategies and document security and file storage all of which to strengthen security and threat prevention efforts.

As a safeguard, critical financial, legal and other information is kept in hard copy format in addition to electronic format.

Safety of Persons and Property. In accordance with requirements of the Occupational Health & Safety Act, Science North has an active Joint Health and Safety Committee comprised of management and worker representatives from a cross-section of the organization. Members of the Joint Health and Safety Committee perform regular reviews of Science North's operations and physical infrastructure. The Committee's reports are shared with staff and management. This Committee plays a key role in identifying trends to prevent reoccurrence of past incidences, and ensures remedial action is taken for the ongoing health and safety of both staff and visitors. All injuries, regardless of nature or severity, are documented and reported through a formal system of "Occurrence Reports". Investigations are conducted on all incidents involving serious or critical injuries or those involving a hospital visit.

Science North contracts one of Sudbury's largest professional security firms to provide security services to both of its Sudbury facilities and for special functions held on its sites. The on-site security guard is responsible to conduct regular patrols of the entire Science North facility, and to deal with, or seek assistance for, situations that threaten the safety of property or persons.

**Protection of Critical Assets.** Science North continually seeks improvements in its approach to protect critical assets. In an effort to have systems in place, Science North has two projects that meet critical requirements.

The first project is a smart microgrid energy generation and storage unit installed at Science North. The smart microgrid is fuelled by a 200-250 Kw photovoltaic array that stores energy to an onsite battery, allowing Science North to decrease its dependence on the Ontario electrical grid.



For the second project, with the support of infrastructure capital, an emergency backup generator was purchased and installed to protect against an extended power outage and high-risk damage to the building's core assets and to our animals.

Fire/Emergency. Science North has two formal plans to deal with fire and emergency situations.

The Science Centre's Fire Plan is approved by the City of Greater Sudbury Fire Services. This plan provides the City's Fire Services with critical information on Science North's building systems and staff's responsibilities in fire alarm and evacuation situations. This ensures that the City's fire personnel arrive onsite already familiar with the premises and procedures.

Science North's Emergency Plans contain clear and coordinated procedures for dealing with a variety of emergency situations, from general evacuation procedures to handling bomb threats to finding lost children. All staff are trained on their roles related to each emergency situation. Three individual Emergency Plans are in place to address the unique needs of each of the organization's three physical locations (Science North and Dynamic Earth in Sudbury, and Science North's satellite base in Thunder Bay).

Annually, both the Fire Plan and Emergency Plans are reviewed, revised and communicated to staff. All changes to the Fire Plan are approved by the City's Fire Prevention Officer.

Fire prevention forms part of the Science North's fire contingency plan. Fire protection systems are inspected, maintained and monitored on an annual basis at a minimum and more frequently as needed. An external firm provides regular 24-hour per day, 365 days per year remote central monitoring of fire and sprinkler systems and alarm dispatch.

**Insurance.** Science North ensures its ability to deal with an unexpected loss by covering its property and operations under a comprehensive insurance plan that includes business interruption insurance. In addition to arranging for and maintaining appropriate insurance policies, an exposure analysis is conducted on a regular basis by Science North's insurance carrier. Following each analysis, a formal assessment is submitted that includes a determination of appropriate coverage levels and a review of additional risk management strategies to mitigate current and future exposures.



Asset Management Plan

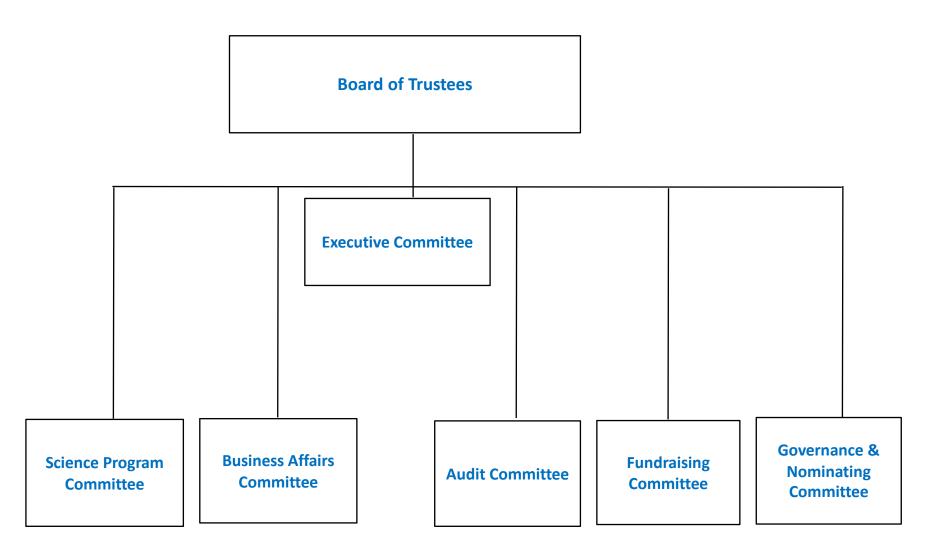
Part	No.	Project Name	Project Description	Total Cost \$	Capital funding provided by self- generated or operating funds	Partner (Private Sector) or Foundation	Expected contribution by MHSTC	Expected contribution by other government	2016-17 Actual Cost A		2018-19 Actual : Cost \$	Cost Proj \$ C	20-21 ected ost	2021-22 Forecast Cost   \$	2022-23 Forecast Cost \$	2023-24 Forecast Cost \$	2024-25 Forecast Cost \$	2025-26 Forecast Cost \$	Project Rationale
Companies of the filter of the companies of the filter of the companies of the filter of the companies of					\$		Ť						*						
Company   Comp						•		•											
Part	01		Compliance with regulatory requirement of																
Control of the cont		Enabling Accessibility for Staff & Visitor		\$ 857,500	\$ -	\$ -	\$ 607,500	\$ 250,000	\$ 72,500 \$	150,000	\$ 135,000	\$	-	\$ 100,000 \$	100,000	\$ 100,000	\$ 100,000	\$ 100,000	
Property	02																		These assets are beyond their useful life. This project will ensure that the
Amount   Amount of the control of		Floors and Wall Renewal		\$ 2,194,099	\$ 15,000	\$ -	\$ 2,159,099	\$ 20,000	\$ 348,117 \$	248,738	\$ 77,244	\$ 20,000 \$ 2	250,000	\$ 250,000 \$	250,000	\$ 250,000	\$ 250,000	\$ 250,000	
Part	03	-		¢ 041 E66	¢ 205.000	ė	¢ E41 E66	¢ 105.000	ا د		¢ 216 E66	¢ 100,000 ¢ 1	E0 000	ć 13E 000 l	100.000	¢ 50,000	¢ 50,000	¢ 50,000	
Procession   Control of the Control of Superior (Control of Superior (	0.4	Renewal	network inirastructure	\$ 941,500	\$ 295,000	\$ -	\$ 541,500	\$ 105,000	\$ - \$	- ;	\$ 310,500	\$ 100,000 \$ 1	150,000	\$ 125,000 \$	5 100,000	\$ 50,000	\$ 50,000	\$ 50,000	
Second of the present of the prese	04	HVAC System	Honeywell system renewal	\$ 1,923,210			\$ 1,923,210					\$ 23,250 \$ 3	80,000	\$ 399,400 \$	52,440	\$ 33,120	\$ 885,000	\$ 150,000	that the asset is the latest software and hardware versioning.
Processing Registerowner of Registerow	05																		
February		Roofing Replacement	Replacement of building roofing	\$ 3,250,000			\$ 3,250,000							\$ 250,000 \$	500,000	\$ 500,000	\$ 1,500,000	\$ 500,000	
February	06		Remodiation to link area infractructure as a																Those access were significantly damaged during the flood which occurred
Or   Window Caulking & Replacement and remediation on image architecturally designed training of the standards.   Suppose	00	Link Repairs		\$ 3,650,000		\$ 2,150,000	\$ 1,500,000		\$	650,000	\$ 301,282			\$ 380,000 \$	500,000	\$ 1,000,000	\$ 818,718		
Mindow Caulting & Replacement   Unique architecturally designed building   \$2,924,000   \$   \$   \$   \$   \$   \$   \$   \$   \$																			These assets are beyond their useful life. This project will ensure that the
Renewal of key critical building systems   \$10,700,000   \$1,000,000   \$2,000,000   \$2,000,000   \$2,000,000   \$2,000,000   \$3,000,000	07	Window Caulking & Replacement		\$ 2.924.600	\$ -	\$ -	\$ 2.924.600	\$ -	\$ 49.600 \$	50.000	\$ 50.000	s	50.000	\$ 100.000 \$	50.000	\$ 75.000	\$ 2.500.000		
Circles Systems   Renewal of Rey critical building systems   \$1,0700,000   \$1,000,000   \$1,000,000   \$2,000,000   \$2,000,000   \$2,000,000   \$3,000,000   \$3,000,000   \$3,000,000   \$4,000		, , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		,	, , , , , , , , , , , , , , , , , , , ,			,	,	Ċ	,		,	, ,,,,,,,,	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		These assets are beyond their useful life. This project will ensure that the
Appart of our strategic plan, this project is related to the discontinuance of the project is fully funded and will drive self-generated revenues.	08	Critical Systems	Renowwal of key critical building systems	\$ 10.700.000			\$ 10.700.000							\$ 2500,000	2 000 000	¢ 2500.000	\$ 100,000	\$ 2,600,000	
Environmental initiatives 8-22 Refringerant retroff and replacement 9 1,200,000 \$ 1,000,000 \$ 50,000 \$		CITCICAL SYSTEMS	Renewwar of key Critical buriumg systems	3 10,700,000			3 10,700,000							\$ 2,500,000 \$	2,000,000	\$ 2,500,000	3 100,000	\$ 3,000,000	staliualus.
Environmental Initiatives R. 22 Refridgement retrofit and replacement S 1,200,000   \$ 1,200,000   \$ 5,000	09																		As part of our strategic plan, this project is related to the discontinuance
Project is fully funded and will drive self-generated revenues.		Environmental Initiatives	R-22 Refridgerant retrofit and replacement	\$ 1.200.000			\$ 1.200.000							\$ 50,000 \$	5 1.000.000	\$ 50.000	\$ 50,000	\$ 50.000	
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1 16   Establish a permanent location in the North   science programming, camps, outreach and festivals. Dependent on				, , , , , ,				,											As part of Science North mandate, servicing Northern Ontario through
Northwest Expansion   West   \$ 3,000,000   \$ -   \$ 500,000   \$ 1,500,0	16	Northwest Expansion	Establish a permanent location in the North	\$ 3,000,000	Ġ	\$ 500,000	\$ 1,000,000	\$ 1500,000	ا د		<u> </u>	ė <u> </u>		\$ 500,000	1 500 000	\$ 1,000,000			science programming, camps, outreach and festivals. Dependent on
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Customer focused to offer new experiences; brand enhancement,	17							1.											
14th Travelling Exhibition   North America   \$ 2,000,000   \$ 250,000   \$ 750,000   \$ -   \$ -   \$ -   \$ -   \$ -   \$ 30,000   \$ 1,900,000   \$ 70,000   \$ revenue generating; Opportunity for new products (external sales)		14th Travelling Exhibition	North America	\$ 2,000,000	\$ 250,000	\$ 750,000	\$ -	\$ 1,000,000	\$ - \$	- 5	\$ -	\$ -		\$ 30,000 \$	1,900,000	\$ 70,000			revenue generating; Opportunity for new products (external sales)

\$ 57,417,975 \$ 1,420,000 \$ 10,230,000 \$ 29,103,607 \$ 16,714,368 \$ 470,217 \$ 1,248,738 \$ 1,110,092 \$ 661,625 \$ 1,801,313 \$ 9,021,347 \$ 12,010,805 \$ 10,158,120 \$ 10,053,718 \$ 10,882,000

# APPENDIX G

Board and Committee Organizational Chart

# Science North Board of Trustees Organizational Chart





Staff Organizational Chart

#### Science North Organizational Chart

#### T. Rainville, Sr. Manager, International Sales

K. Huneault, Mgr International Sales Operations

CEO G. Labine

#### C. Gordon, Director, Office of the CEO and Strategic Initiatives

J. Hall, Manager, Grant Programs

K. Byne, Contract Manager, Grant Programs

# N. Martin. Senior Scientist. Science Operations R. Brouillette, B. Doran, M. Radey, N. Nesseth, O. MacIntyre Staff Scientists T. August, Vacant, L. Robillard Mireille Tremblay, M. Fortin Science Communicators R. Jensen, M. Tremblay. **Technical Specialists** Vacant, Senior Scientist. Science Initiatives Science Director - J. Moskalyk D. Chaput, C. Beaulieu-Tremblay, A. Henson, M. Mitchell, K. Pisani Staff Scientists K. Farr-Simon, C. Moreau, Vacant (2) Science Communicators A. Denis (on leave) Science Technicians J.Beaudry, Senior Manager, Dynamic Earth Vacant, Staff Scientist A. Slaney, Science Communicator

C. Roy, Assistant to the Directors, Education Initiatives

#### S. Chisnell, Senior Scientist Education

- B. Roy, Senior Educator
- T. Leduc. Staff Scientist
- C. Nolet, Contract Science Communicator L. Puls. Staff Scientist

#### C. Stadder Wise, Senior Scientist, Informal Science Programs

- Josee Bertrand , Staff Scientist
- S. Murray, Staff Scientist
  M. Chang, Science Communicator
- A. Mantione, Science Communicator
- C. Dimaio, Contract Science Communicator

#### E. Kerton, Senior Scientist Outreach & Indigenous Initiatives

- K. Richard, Staff Scientist
  - J. Mayes, S. Morrison Contract Science Communicators
  - C. Breton-Di Paolo, Indigenous Initiatives Intern
- G. Patterson, Staff Scientist
  - R. Zimmer, Contract Science Communicator
- M. Graveline, Staff Scientist
- D. Bates, Contract Staff Scientist

# L. Clausen, Senior Scientist, Northern Initiatives G. Schmidt. Contract Staff Scientist

R. Wilson, Manager, Organizational

- Development Operations A. Wilkie
  - Organizational Development Officer
- D. Kelly, IT Services Manager

Director, Talent Management - N. Ayre

#### G. Moote (Black & McDonald) M. Gibson Senior Managers, Facility Infrastructure

P. Loiselle, R. Marquis, S. McNamara, G. Caron, Vacant Technical Specialists

#### A. Thoms, Accounting Supervisor

- B. Carriere, Accountant
  M Ciulini, Accountant
  - Vacant, Accounts Payable Officer
- S. Lauzon, Business Analyst Intern
- V. Lefebvre, Accountant
  P. Duncan, Procurement & Contracts
- Officer

#### D. Stoddart, Senior Manager, Projects

- A. Martin, Manager, Projects
  - T. Gregorini, Sr. Technologist
- R. Wildeman, Animator
- A. Wilson, Associate Producer/Editor
- D. Sargeant, Production Project Interior
- K. Kivinen-Newman, Staff Scientist
- (on leave)
  E. Macdonald, Exhibit Development
- V. Gran, Technical Project Manager Vacant, Technical Specialist

#### K. Gauvreau, Senior Manager, Onsite Business & Service Development

- M. Lalonde, K. Parkhill.
- A. Edwards (on leave)
- Sales Leaders
- K. Vanclieaf (on leave),
- Booking Agent
- Booking Agent
- B. Scully, Sales Leader Functions
  V. Murphy, Senior Manager, Facility

# V. Murphy, Senior Manager, Facility Operations

- K. McArthur, Technical Specialist (on leave)
- D. Mercier, Technician (on leave)

L. Donnelly, Manager, Development
Vacant. Development Officer

#### L. Brown, Senior Manager, Marketing

Director, Development - A. Larose

- J. Aelick, Sr. Marketing Specialist
  - B. Gillespie, Contract Marketing Specialist
- M. Wright, Graphic Designer
  A. Daoust, Sr. Marketing Specialist

Update November 23, 2020



# 2021-22 Performance Measures

# 2021-22 Performance Measures – Science North

Performance Measure	2021-22 Target	Rationale for performance measure/objective
Budget Achievement	Improve financial performance to reduce anticipated \$1.6 million deficit.	Science North has proven entrepreneurial expertise with a focus on generating earned income to make it sustainable. This approach is required to allow Science North to grow its programs and impact to fulfill its mandate while managing the financial gap that has occurred from a static operating grant over the past 11 years. Given the ongoing pandemic, Science North is also committed to finding efficiencies to reduce operational expenses.
Customer Satisfaction	Achieve 95% overall customer satisfaction for Science North, Dynamic Earth, outreach, science camps and school programs and online engagement.	Customer satisfaction leads to loyalty, repeat visitation and membership growth, which is essential in achieving overall attendance goals
Attractions Attendance and Associated Revenue	Achieve a total of \$679,749 in attractions and membership revenue with an overall attendance of 27,492, and \$190,870 in on-site businesses and parking revenue.	Science North's self generated revenue includes attractions, membership and on-site business revenue which make up 21% of its self-generated revenue and 8% of its total revenue. The success of these onsite revenues form part of the self generated revenue that is critical to fund Science North programs. In total, Science North is projected to generate \$4.2 million in self generated revenue, or 38% of its revenue, to maintain operational requirements throughout its recovery stage.
External Sales Revenue	Achieve an overall external sales profit, including travelling exhibit leases and administrative expense, of \$143,365.	Science North's external sales business revenue makes up 42% of its self-generated revenue in Science North's operating budget.
Grants Revenue	Achieve government funder commitments of \$4M in capital grant revenue for visitor experience renewal.	These revenues are essential for the creation and implementation of new visitor experiences.

New Digital Audience Experiences	Develop and implement digital science content on all social media channels-Facebook, Instagram, Twitter, TikTok, YouTube, Science North website.  •120 science social media posts  •19 Bluecoat Talks  •12 Jenn Learns episodes	Developing topical current science content offered digitally to meet the needs of varied audiences expands the reach and engagement of Science North across Northern Ontario, and beyond.
Science Experiences Delivered to First Nations in Northern Ontario	<ul> <li>Deliver 50 e-workshops in First Nations schools.</li> <li>Distribute 5,000 STEM Kits to First Nations students and families in Northern Ontario.</li> </ul>	Involving Indigenous students in science programs is a key priority for Science North. Given Indigenous people form 12% of the Northern Ontario population and are the fastest growing population in Ontario, Science North has made it a priority to deepen our engagement with Indigenous audiences. The presentation of the <i>Indigenous Ingenuity</i> exhibit will not only engage Indigenous audiences but will highlight Indigenous culture and innovations to the general public.
Education and Outreach Experiences in Northern Ontario	<ul> <li>In support of continued STEM learning engage 22,000 students in virtual education programming and host 3000 students for inperson school visits at Science North.</li> <li>Deliver 30 outdoor science shows to 1,000 students in Northwestern Ontario.</li> <li>Reach 5,000 people in 35 communities through outreach activities.</li> <li>Provide summer camp experiences for 1,500 students in 15 northern communities.</li> <li>Host 2,500 visitors at the <i>Indigenous Ingenuity—Timeless Inventions</i> exhibit in partnership with the hosting Thunder Bay Art Gallery.</li> </ul>	As Science North fulfills its mandate to be Northern Ontario's science centre, it continues to provide opportunities for students and families to participate in science experiences right in their Northern communities. 2021-2022 will see an increased focus on virtual reach, with a gradual return to in-person programming in keeping with public health guidelines and directives.

Digital Presence	Achieve 3% engagement with digital analytics on Facebook/Instagram/Twitter [increase over industry standard of 2%].	Customers' preference for digital content and experiences has grown exponentially and Science North must increase its presence in this area to remain relevant.
Green Initiatives	Complete refrigerant conversion project from HCFC-22 to HFC R410a, achieving reduced carbon footprint. Reduce tipping fees by 5% over 2020-2021 figures to measure impact of new 3-stream waste management.	Achieve organizational-wide engagement in generating and implementing green and sustainable initiatives.
Organizational Culture	Through its Employee & Leadership Development strategies, Science North will provide opportunities to enhance organizational and individual skill sets that promote an inclusive environment and provide opportunities for dialogue and conversation around sensitive topics at Science North. Targets to include:  1. Through its Equity, Diversity and Inclusion Committee, a series of 12 monthly staff forums.  2. A Leadership Series consisting of 10 capacity building sessions.  3. One mentorship/coaching program session to run over a 6-month period.	Entrench, model and reinforce cultural values across Science North by fostering a spirit of diversity and inclusion through the promotion of ideas, information and events. An engaged and motivating work culture will continue to maintain and attract skilled workers.
Philanthropy	Achieve \$295,000 in corporate sponsorship revenue.	Philanthropic support is an important source of self-generated revenue for Science North.









