

CIVIC PARTNER 2022 ANNUAL REPORT SNAPSHOT- CALGARY SCIENCE CENTRE SOCIETY (TELUS SPARK)

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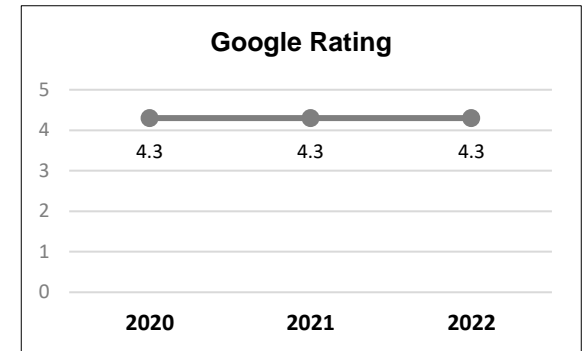
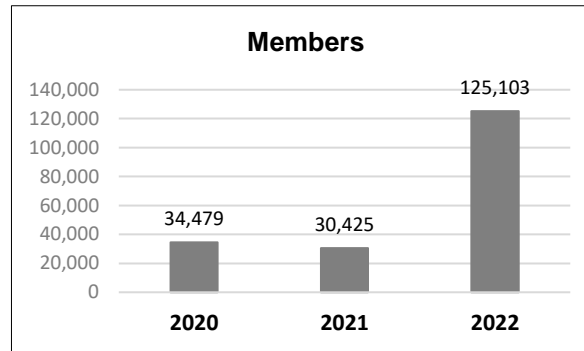
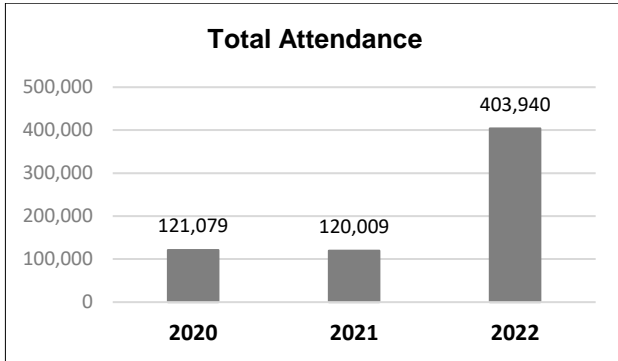
Purpose: Spark exists to lift people up with the power of curiosity.
Mission: To deliver world-renowned creative experiences with science.

One Calgary Line of Service: Economic Development and Tourism *Registered Charity*

2022 City Investment

Operating Grant: \$ 2,254,857
Capital Grant: \$291,863
Economic Resiliency Fund: \$161,000
City owned asset

2022 Results



The story behind the numbers

- Spark fully rebounded from pandemic attendance numbers, reaching the second highest annual attendance since moving to the new facility.
- Engaged a broad range of Calgarians and provided connections to science, technology, engineering, art and math that resonated across all social economic and cultural groups within the community.
- Continued to deliver exceptional experiences on site and through outreach programs.

Addressing climate change

The new Renfrew Solar Carport produces an estimated 1.2-million-kilowatt hours of electricity annually to power the building, reducing approximately 426 tonnes of greenhouse gas emissions annually. TELUS Spark installed LED green “running man” signs to reduce energy consumption, and offered *Project Planet Earth*, a new climate-focused summer camp for aspiring young scientists ages 8 to 10 years old.

Advancing equity, diversity and inclusion; and racial equity

Implemented changes to recruitment and human resources policies, and required unconscious bias training for all staff. Updated internal project charters to address how equity, diversity and inclusion has been considered as part of every project. Worked with Indigenous employment programs, including programs focused on youth.



**CALGARY SCIENCE CENTRE SOCIETY (TELUS SPARK)
Civic Partner 2022 Annual Report**

Civic Partner Name: TELUS Spark Science Centre (Calgary Science Centre Society)

Legal Structure: Registered Charity

Manage/operate a City-owned asset: Yes

1. What is your organization's guiding mission or mandate?

- **Purpose:** Spark exists to lift people up with the power of curiosity.
- **Mission:** Spark's mission is to deliver world-renowned creative experiences with science.
- **Vision:** Spark's vision is to inspire humanity to seek answers, come together and to make the world better.

2. What top 3-5 key results did your organization achieve in 2022 that contributed to one or more of key City strategies or plans or Citizen Priorities (a prosperous city, a city of safe and inspiring neighbourhoods, a city that moves, a healthy and green city)?

1. **Inspiring digital innovation (“a prosperous city”, “a city that moves”).** Spark merged science, digital technology and art in 2022 to create immersive, bold and surprising digital experiences:
 - In the Digital Immersion Gallery (DIG), **Quantum Sandbox** explored physics principles in new ways, incorporating both Indigenous and western ways of knowing science.
 - To celebrate the 75th anniversary of Goodnight Moon, the classic bedtime story, Spark was licensed to produce the first-ever **Goodnight Moon digital immersion experience** in the DIG, for people of all ages.
 - To help families stay active at Spark, **Pixelarius VR** was launched, an immersive virtual reality experience for the whole family that takes guests into vivid fantasy worlds.
 - The **Infinity Dome theatre**, Calgary's largest and brightest dome experience, continued to launch new 360-degree, high resolution movies and star shows for students and guests.
2. **Re-imagining the Brainasium Outdoor Park (“a city that moves”).** Physical play helps develop skills like problem solving, spatial thinking and cooperation. In 2022, capital improvements to outdoor spaces were completed to create more accessible all-ages experiences, supercharged with science in the great outdoors and designed to help strengthen the proven connection between healthy brains and healthy bodies. In partnership with the Spark Indigenous Advisory Circle and the local Indigenous community, work also began on The Gathering Circle – a place to share stories and learn about star science, local Indigenous plants, medicines and history.
3. **Renfrew Solar Carport construction (“a healthy and green city”, “a city of safe and inspiring neighborhoods”).** This beacon of environmental stewardship for the community was built in partnership with The City of Calgary and CANA through 2022. It has completely transformed the Spark parking lot – powering the science centre with renewable energy.
4. **New in-class science education programs (“a healthy and green city”).** In the fall, Spark launched two new week-long science programs that travel directly to Calgary-area schools:

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Cloudy With A Chance Of Science, a climate science program for grades 4-6 that turns classrooms into weather stations, as well as Ready, Set, Robot, a coding and robotics residency for grades 5-8.

5. **Spark and Beakerhead merge (“a city of safe and inspiring neighborhoods”).** In April, Spark and Beakerhead merged – a complimentary and collaborative combination that aims to strengthen both charitable organizations in the long term, while continuing to inspire Calgarians as two stand-alone entities. In September, and with the support of Spark, Beakerhead engaged thousands of Calgarians through its beloved annual fall spectacle, which smashed together science, technology, engineering and art.

3. Performance measures help demonstrate the return on The City’s investment in a partner’s operations. Please identify performance measures that reflect your organization’s impact in 2022 (how much you did, how well you did it, and how the people you serve are better off).

	Performance Measure Name	2020 results	2021 results	2022 results	How does this measure reflect your organization’s impact?
How much did you do?	Total Attendance	121,079	120,009	403,940	Spark fully rebounded from pandemic attendance numbers reaching the second highest annual attendance since moving to the new facility.
How well did you do it?	Google rating	4.3	4.3	4.3	Spark continues to deliver exceptional experiences not only on site, but also through many outreach programs.
How are Calgarians better off?	Attendance at Spark reflects the makeup of Calgary’s community.	34,479	30,425	125,103	Through carefully curated products and programs, Spark engaged with a broad cross section of Calgarians providing them with connections to science, technology, engineering, art and math that resonated across all social economic and cultural groups within the community.

4. What are examples of benchmarks your organization uses to evaluate and improve performance and operations, and increase your organization’s impact?

- a) **Please provide examples of benchmarks, and how this information is being used to support continuous improvement.**

Impact

- **Total Attendance in 2022:** 403,940
- **Regional Breakdown**
 - Calgary: 61%
 - Rest of Alberta: 22%
 - Rest of Canada: 15%

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- International (including United States): 2%

Reach

- **Media reach in 2022:** 612,610,753. This was an increase of 59%, against an original goal of 5% for 2022.
- **School Visitors in 2022:** 40,938. This was a slight increase against the original goal of 40,245.

b) Please indicate your current and targeted performance in comparison to these benchmarks

Impact

- **2023 Annual Attendance Target:** 363,546
- **Attendance, Q1-2023:** 132,893
- **Q1 - 2023 Attendance by Region:**
 - Calgary: 68%
 - Rest of AB: 22%
 - Rest of Canada: 9%
 - International (including United States): 1%

Reach

- **Media reach in Q1-2023:** 375,758,738. This is a quarterly year-over-year increase of 59%, against a goal of 5%.
- **School Visitors in Q1-2023:** 17,702, against an original target of 20,813.

5. What key results or progress was achieved in 2022 that reflected your organization's changes to strategies, programs or services to better address equity, diversity or inclusion, or support racial equity?

Spark's DEI Strategy

Spark has continued to grow its DEI strategy with the inclusion of a number of new initiatives and programs. Supported and informed by Spark's DEI task force some of the highlights in 2022 include:

Unconscious Bias Training. In 2022, all new hires and existing staff were required to take the Unconscious Bias training through LinkedIn learning. This training helped staff recognize we all have biases based on our cultures, upbringing and values, and we need to ensure those biases do not lead to discrimination in the workplace. This training is now a mandatory condition of employment with Spark.

Updated Internal Project Charters. Spark has updated all of its internal project charters to include a section committed to ensuring that diversity, equity and inclusion have been considered as part of each project. The section includes specific details on how the project is inclusive of diverse perspectives and voices. Examples of how this has impacted how projects include the inclusion of diverse speakers, vendors, partners and audiences.

Recruitment & HR Policies. Highlights include:

- No longer requiring degrees or diplomas for all of our roles.

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- While we still require police checks we have removed the wording from our job postings.
- We now highlight the position's wage ranges in all of our job postings.
- New diversity statement in all of our job postings:

Don't meet every single requirement? Studies have shown that women, people of colour, and persons with disabilities are less likely to apply to jobs unless they meet every single qualification. At Spark, we are dedicated to building a diverse and inclusive workplace so if you are excited about this role please apply! An excitement and passion for science can go a long way here so you may be just the right candidate for this or other roles at Spark.

- Attending at least one hiring fair per year that focuses on marginalized communities.
- Working with Indigenous employment programs such as Revision. HR was invited to a pipe ceremony with Miskanawah for our work with their Re:VISION program. This program assists indigenous youth with employment.
- Every job posting goes to Re:VISION and Aboriginal futures additional to Indeed.
- Ensuring each team at Spark has at least 40% diversity (BIPOC, age, gender, LGBTQ, persons with disabilities).

Projects that promote diversity

Spark After Dark. On June 10, the science centre hosted **Spark After Dark: Beyond the Rainbow**, as part of its wildly popular adults-only event series. Partnering with groups like Calgary Pride, Centre for Sexuality and Alberta Health Services, the night featured educational workshops, performances, music, onsite testing, a queer creator's market and talks with prominent experts on empowering physical spaces, storytelling in the pride movement.

The Many Nations, One Voice For Wellness project. In partnership with Public Health Agency of Canada, this important inclusive year-long initiative blended traditional Indigenous knowledge with global science to explore diverse perspectives on health and wellbeing. In fact, the term **Many Nations** was chosen to highlight the inclusion of BIPOC, LGBTQ+, youth and Elders. Videography, freestyle rap, poetry, music and dance were the learning vehicles to collaboratively explore health topics in the context of community life. In 2022, the MNOV team hosted several creative sessions, as well as workshops and performances for the public.

Incorporating Indigenous ways of knowing science

Incorporating Indigenous ways of knowing science into the Digital Immersion Gallery. Launched in February 2022, Quantum Sandbox was a landmark digital immersion experience that merged Indigenous and global ways of knowing science to help explain physics principles in a way that was accessible and entertaining. Through the development process, Spark and the production team worked closely with Kainai Elder Dr. Leroy Little Bear and Siksika astronomer Rob Cardinal.

Indigenous Science Nights at Spark. Through 2022, Spark hosted several Indigenous Science Nights – free events for all First Nations, Métis and Inuit peoples, and open to guests from every corner of Calgary. These rich evening events are filled with Indigenous science, storytelling and learning experiences with Elders and Knowledge Keepers.

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Indigenous Science Days. To honour National Indigenous Peoples Day and the summer solstice, Spark hosted a free event on June 21 featuring the University of Calgary's Campfire Chats (Dr. Leroy Little Bear, Dr. Tasha Hubbard and Marie-Eve Marchand), The Young Warriors Drum Group, a learning session on powwow mechanics, a bows and arrows demo and an Indigenous art market. On June 24 and 25, Spark celebrated the Indigenous art of sound with events that were free for all First Nations, Métis and Inuit peoples, featuring Many Nations One Voice for Wellness hip-hop performances, a Round dance, workshops on caribou tufting and fish scale art, IndigeSTEAM robots and drones, and an Indigenous art market.

Representation of Indigenous languages. A welcome sign at Spark's main entrance was introduced in 2022, which greets all visitors in Treaty 7 languages. A permanent welcome and land acknowledgment are an integral part of Spark's future redesign for the entry experience. Spark continues to work with the Spark Advisory Circle to incorporate Indigenous languages into future experiences and programming.

The Gathering Circle. In partnership with the Spark Indigenous Advisory Circle and the local Indigenous community, work began in 2022 on The Gathering Circle. Located in the redesigned Brainasium Outdoor Park, this will be a place to gather, share stories and learn about Indigenous star science, local Indigenous plants, medicines and history.

Blackfoot Skies: Makoiyohsokoyi. In 2022, Spark supported an all-Indigenous cast and crew as they developed and launched Blackfoot Skies: Makoiyohsokoyi, a short film adaptation of an original Siksikaitisitapi story about the Wolf Trail, or Milky Way in the English language. This story was gifted to the science centre in the early 1990's by the late Dan Weasel Moccasin. In 2023, representatives from Spark, alongside Blackfoot Elders, have shared the film within Indigenous schools throughout the province using its portable dome theatre, helping to connect students with the depth of science within the Milky Way/Makoiyohsokoyi story.

Tipis and Telescopes. This special sold-out September event held under the Milky Way in Kananaskis Country, Alberta invited hundreds of participants for a full weekend of star stories, ceremony, music, arts, Indigenous science and community. Special guests included Cree Knowledge Keeper Wilfred Buck, local Indigenous Elders and Knowledge Keepers, and Indigenous scientists from NASA and MIT.

6. What steps did your organization take in 2022 to advance any respective calls to action in the Truth and Reconciliation Commission of Canada: Calls to Action report or The City's White Goose Flying Report?

TRC Call to Action 14 – Representation of Indigenous languages. A welcome sign at Spark's main entrance was introduced in 2022, which greets all visitors in Treaty 7 languages. A permanent welcome and land acknowledgment are an integral part of Spark's future redesign for the entry experience. Sacred Defenders of the Universe, the newest Digital Immersion Gallery experience at Spark, connects the four elements with upwards of seven different Indigenous Languages, and the science within these words. Spark continues to work with the Spark Advisory Circle to incorporate Indigenous languages into future experiences and programming.

TRC Calls to Action 14 and 92 – Developing The Gathering Circle. In partnership with the Spark Indigenous Advisory Circle and the local Indigenous community, work began in 2022 on The Gathering

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Circle. Located in the redesigned Brainasium Outdoor Park, this will be a place to gather, share stories and learn about Indigenous Star Science, local Indigenous plants, medicines and history.

TRC Call to Action 63, 66 and 92 – Indigenous Science Days. To honour National Indigenous Peoples Day and the summer solstice, Spark hosted a free event on June 21 featuring the University of Calgary’s Campfire Chats (Dr. Leroy Little Bear, Dr. Tasha Hubbard and Marie-Eve Marchand), The Young Warriors Drum Group, a learning session on powwow mechanics, a bows and arrows demo and an Indigenous art market. On June 24 and 25, Spark celebrated the Indigenous art of sound with events that were free for all First Nations, Métis and Inuit peoples, featuring Many Nations One Voice for Wellness hip-hop performances, a Round dance, workshops on caribous tufting and fish scale art, IndigeSTEAM robots and drones, and an Indigenous art market. **TRC Call to**

TRC Calls to Action 63 and 66 – Developing Blackfoot Skies: Makoiyohsokoyi. In 2022, Spark supported Indigenous filmmakers, actors and artists as they developed and launched *Blackfoot Skies: Makoiyohsokoyi*, a short film adaptation of an original Siksikaitsitapi story about the Wolf Trail, or Milky Way in the English language. This story was gifted to the science centre in the early 1990’s by the late Dan Weasel Moccasin. In 2023, representatives from Spark have shared the film within Indigenous schools throughout the province using its portable dome theatre.

TRC Call to Action 92 – Incorporating Indigenous ways of knowing science into the Digital Immersion Gallery. Launched in February 2022, Quantum Sandbox was a landmark digital immersion experience that merged Indigenous and global ways of knowing science to help explain physics principles in a way that was accessible and entertaining. Through the development process, Spark and the production team worked closely with Kainai Elder Dr. Leroy Little Bear and Siksika astronomer Rob Cardinal.

TRC Call to Action 92 – Indigenous Science Nights at Spark. Through 2022, Spark hosted several Indigenous Science Nights – free events for all First Nations, Métis and Inuit peoples, and open to guests from every corner of Calgary. These rich evening events are filled with Indigenous science, storytelling and learning experiences with Elders and Knowledge Keepers.

TRC Call to Action 92 – The Many Nations, One Voice For Wellness project. In partnership with Public Health Agency of Canada, this important year-long initiative blended traditional Indigenous knowledge with global science to explore diverse perspectives on health and wellbeing. Videography, freestyle rap, poetry, music and dance were the learning vehicles to collaboratively explore health topics, including the science of viruses and vaccines, in the context of community life. In 2022, the MNOV team hosted several creative sessions, as well as workshops and performances for the public.

TRC Call to Action 92 -- Hosting Tipis and Telescopes. This special sold-out September event held under the Milky Way in Kananaskis Country, Alberta invited hundreds of participants for a full weekend of star stories, ceremony, Indigenous science and community. Special guests included Cree Knowledge Keeper Wilfred Buck, local Indigenous Elders and Knowledge keepers, and NASA scientists.

RESOURCES

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7. Please outlined how The City’s operating funding was allocated in 2022.

%	Advertising and promotion
%	Programs or services
%	Office supplies and expenses
%	Professional and consulting fees
40%	Staff compensation, development and training
%	Fund development
19%	Purchased supplies and assets
41%	Facility maintenance
%	Evaluation or Research
%	<i>Other, please name:</i>

8. Did volunteers support your operations in 2022?

How many volunteers?	317
Estimated total hours provided by volunteers:	2769.95

9. Did your organization receive any awards or recognition in 2022 that you want to highlight?

- **International Association of Amusement Parks and Attractions (IAAPA) Brass Ring Award for Best New Menu Item (annual attendance <1 million)** for the James Webb Ice Cream Cone.
- **Association of Science and Technology Centres (ASTC) Roy L. Schaefer Leading Edge Award for Community Service** for Spark’s work in Indigenous relations and programming.
- **Calgary’s Child Magazine 2022 Awards Winner** *Best Museum for Families* and *Best Place to Take Your Kids on a Crummy Day*. Honourable Mention for *Best Accessible/Inclusive Experience for Kids*.

10. What changes did your organization implement in 2022 to address climate change, for example, operational or program changes that reduced green house gas emissions (GHG), air/water pollution, or waste that aligned with The City’s Climate Change Program including Council’s Climate Emergency Declaration?

Renfrew Solar Carport construction. This beacon of environmental stewardship for the community was built in partnership with The City of Calgary and CANA through 2022. It has completely transformed the Spark parking lot – powering the science centre with renewable energy. Leveraging the best available solar power technology, the Renfrew Solar Carport includes 2,292 high-efficiency solar panels, spanning over 5,800 square metres. The carport will produce an estimated 1.2-million-kilowatt hours of electricity annually – enough to power the entire science centre or 180 Calgary homes, and avoid approximately 426 tonnes of greenhouse gas emissions associated with grid electricity every year. The solar carport also uses racking specifically designed for northern climates, and as part of the project, improvements were made to parking lot security and lighting.

New in-class science education programs (“a healthy and green city”). In the fall, Spark launched two new week-long science programs that travel directly to Calgary-area schools: Cloudy With A Chance Of Science, a climate science program for grades 4-6 that turns classrooms into weather stations, as well as Ready, Set, Robot, a coding and robotics residency for grades 5-8.

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Climate-focused Summer Camp. In the summer of 2022, Spark launched Project Planet Earth, an inspiring and empowering weeklong experience for young aspiring scientists aged 8-10. The sustainability-infused camp helped to highlight what young people can do to make Calgary a greener, healthier place to live, and included useful take-home projects filled with ingenious engineering.

Environmentally-friendly permanent traffic signage. Spark changed its exit signs from the original design to LED green “running man” signs, netting an energy reduction from the previous signs.

11. CAPITAL PROJECTS AND ASSET MANAGEMENT (for Civic Partners managing City-owned assets)

Asset: *TELUS Spark Science Centre*

a) What are 3-5 capital projects undertaken in 2022 that were funded by The City?

Project	2022 City Funding	Benefit (service improvement, efficiency, improved condition)
Green “Running Man” Exit Signs	\$15,912	Brought exit signs up to current code for improved egress safety and efficiency.
Wheelchair and Stroller Accessible Doors	\$21,577	Provided additional door openers at critical locations for improved accessibility.
Upgrade the Brainasium Outdoor Park	\$170,000	Provided new hard pathways for improved accessibility and a new gathering circle to support Indigenous programming.
Slide Repairs	\$84,375	Replaced end-of-life slide netting for improve safety.