



SciXchange Strategic Plan

2017-2019

Ryerson
University

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SciXchange is the active agent for a science-literate culture and a scientifically engaged nation.

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“Not everyone needs to have a career in science, but everyone should be literate in science.”

Message from the director

I am pleased to present the strategic plan for SciXchange, our new centre for science communication, outreach and public engagement, launched in 2017 within the Faculty of Science at Ryerson University. This plan was developed through a multi-stage process, in consultation with internal and external stakeholders, under the direction of brand and design firm Trajectory, and the market research firm, The Strategic Counsel. SciXchange will build on the success of our science outreach office, which was established at Ryerson in 2011. Our guiding principles align with those of the Faculty of Science and Ryerson University's *Academic Plan, Our Time to Lead, 2014-2019*.

At SciXchange, we aim to make science engaging, accessible and comprehensible to a wide audience. Science and technology shape our world. Many of the challenges we face in the 21st century require innovative solutions through applications of science. The more literate we are in science, the more informed our decisions and choices are about all facets of life. Not everyone needs to have a career in science, but everyone should be literate in science. By implementing this strategic plan, we at SciXchange will be leaders in increasing science literacy and engagement locally, nationally and globally.

Emily Agard, PhD
Director, SciXchange
Learn. Engage. Communicate.

Guiding principles

- access and inclusion
- science literacy
- active engagement
- relevance
- community building
- innovative ways to connect
- empowering experiences and resources
- celebrating excellence

Mission

Our mission is to make science engaging, comprehensible and accessible to the general public. We aim to increase science literacy and foster critical thinking about scientific issues. We provide opportunities for members of the community to engage in science through hands-on work and discussion. We support scientists in effectively communicating about their research. We offer students new opportunities for experiential learning through science outreach. We are guided by principles of diversity and inclusivity in every aspect of our work.

Vision

SciXchange will be a national centre to promote science communication and outreach. We will be associated with science research and communication that is grounded in the public interest. Through local, national and international collaborations, we will be a global leader in making science accessible and inclusive, increasing science literacy and engagement worldwide.

A strategic fit

A natural fit for Ryerson University, SciXchange aligns with the institution's vision to be Canada's leading comprehensive innovation university and shares its goals of increasing the excellence, intensity and impact of scholarly, research and creative activities.







Ryerson University core values

- 1) Commitment to excellence.
- 2) Commitment to the whole person.
- 3) Commitment to community and inclusion.

Faculty of Science guiding principles

- 1) Humanity in science.
- 2) Social innovation.
- 3) Scientists and leaders.
- 4) Quality and agility.
- 5) Access and impact.

Priorities

-  Increase community engagement and partnerships in support of science.
-  Increase science literacy and collaboration locally, nationally and globally.
-  Increase experiential learning opportunities for students.
-  Support Ryerson faculty and other scientists in communicating their research.

Strategies

- 1 Secure university and external funding to enhance programs and increase experiential learning opportunities.


- 2 Recruit and support Ryerson students to contribute to science programming, enhance community service learning, and develop transferable skills – e.g. communication and leadership.

- 3 Develop and deliver enrichment activities to school classes to support teachers and students in their classrooms and through Ryerson campus visits.

- 4 Provide summer science enrichment opportunities for youth, continuing with and expanding on current programs.

- 5 Establish science exchange with Indigenous communities.

- 6 Create new staff positions to support new initiatives and partnerships.

- 7 Continue developing science outreach events that are accessible to the general public of various ages and backgrounds.

- 8 Support extracurricular science enrichment events for youth – e.g. conferences, science fairs.

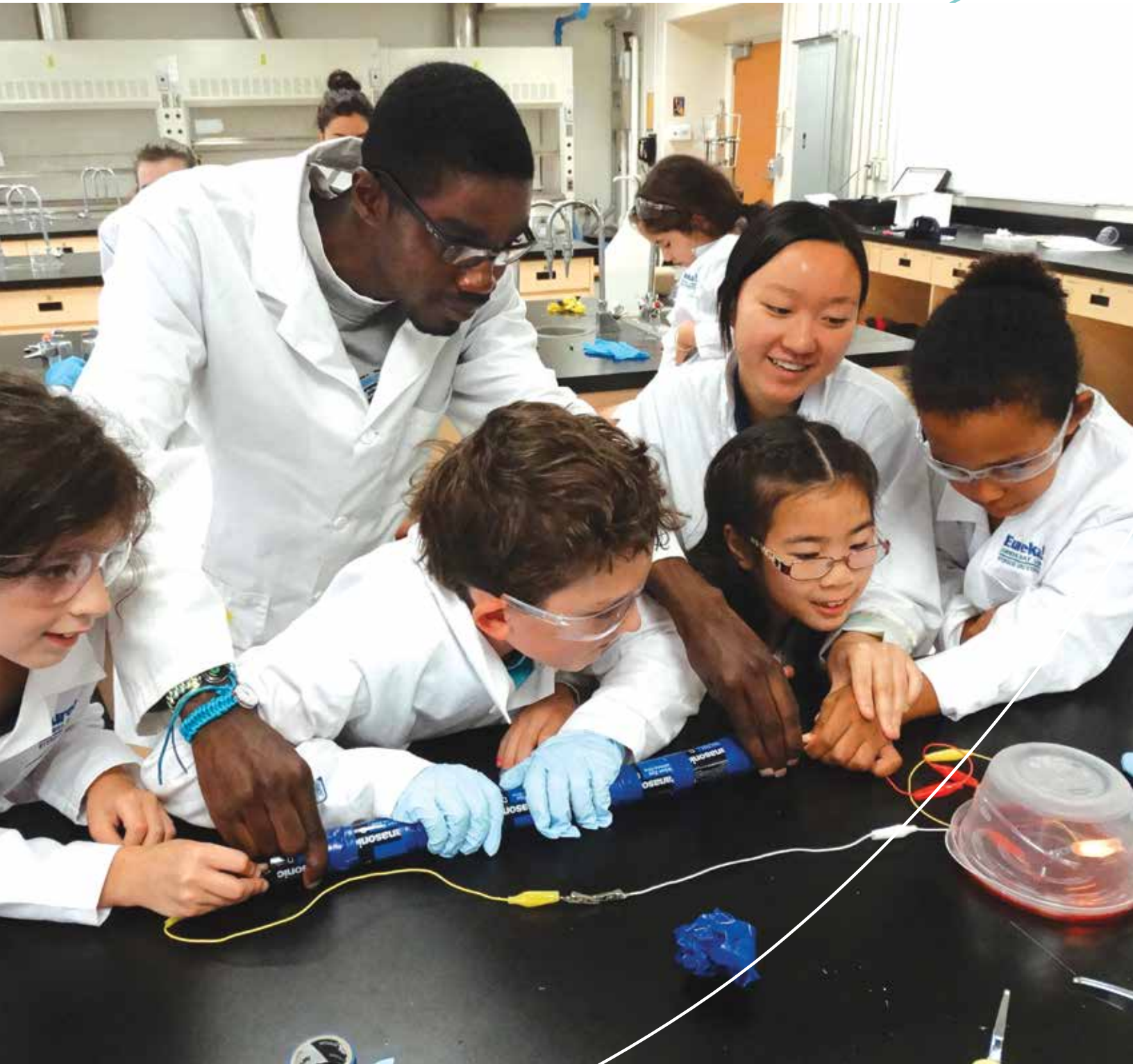
- 9 Increase SciXchange's online profile and science communication impact through social media platforms and an engaging and informative SciXchange website.

- 10 Promote Ryerson faculty members in communicating their research through speaking opportunities and website profiles.

- 11 Develop international partnerships – e.g. Soapbox Science, Science Gallery, CADSTI.

- 12 Enhance local science outreach and communication networks.


How we will measure success



- number of science outreach events available for the general public
- number of schools, students and teachers reached
- locations of schools served
- number of individuals reached in person through various outreach activities geared to the general public
- demographics (age, gender, socioeconomic status, etc.) of participants
- number of Ryerson students working in paid positions and volunteer positions
- number of Ryerson students volunteering
- number of hours of Ryerson student engagement
- career checkpoints for student staff
- number of Ryerson faculty/staff engaged in outreach activities and faculty/students profiled
- number of Ryerson faculty and students promoted/profiled
- qualitative feedback on activities from participants through questionnaires
- number of partnerships and collaborations established and maintained
- level of engagement during activities (e.g. average stay of participants during event)
- website and social media analytics
- number of written science communication outputs

The strategic planning process

Our strategic planning process involved an extensive market assessment and consultation with various internal and external stakeholders. The brand strategy and design firm Trajectory, in partnership with The Strategic Counsel, developed a market assessment, positioning, name and brand identity for SciXchange. We reviewed all recommendations internally and tested them with external stakeholders before launching our new brand.

Overview and timeline



Market scan and positioning elements

Our market scan and positioning analysis assessed how our centre should align with the visions of Ryerson University and the Faculty of Science, and they identified key areas of need in the market and potential for us to provide unique value.

Internal positioning

The centre aligns with Ryerson’s vision of being Canada’s leading comprehensive innovation university. It supports the Faculty of Science’s “Connected Science” positioning, which is rooted at the heart of a vibrant community and network of people in learning, research, partnerships and breakthroughs - connected science at its best. It is well aligned with Ryerson’s academic plan, including the priority to increase the excellence, intensity and impact of its scholarly, research and creative activities.

Qualitative research

Trajectory conducted 20 interviews, speaking to teachers, researchers, deans, media personalities, journalists, students, industry experts, current and potential partners and professional communicators. The following main themes emerged:

- 1) **There are real needs for credible, accurate, relevant science that is accessible to the public.**
- 2) **Ryerson can leverage unique strengths to make connections via:**
 - science and communications
 - scientists and teachers
 - science and underserved communities
 - public engagement
 - scientists and decision-makers
 - partnerships
 - celebrations
 - innovation

Key areas of need identified

Public engagement

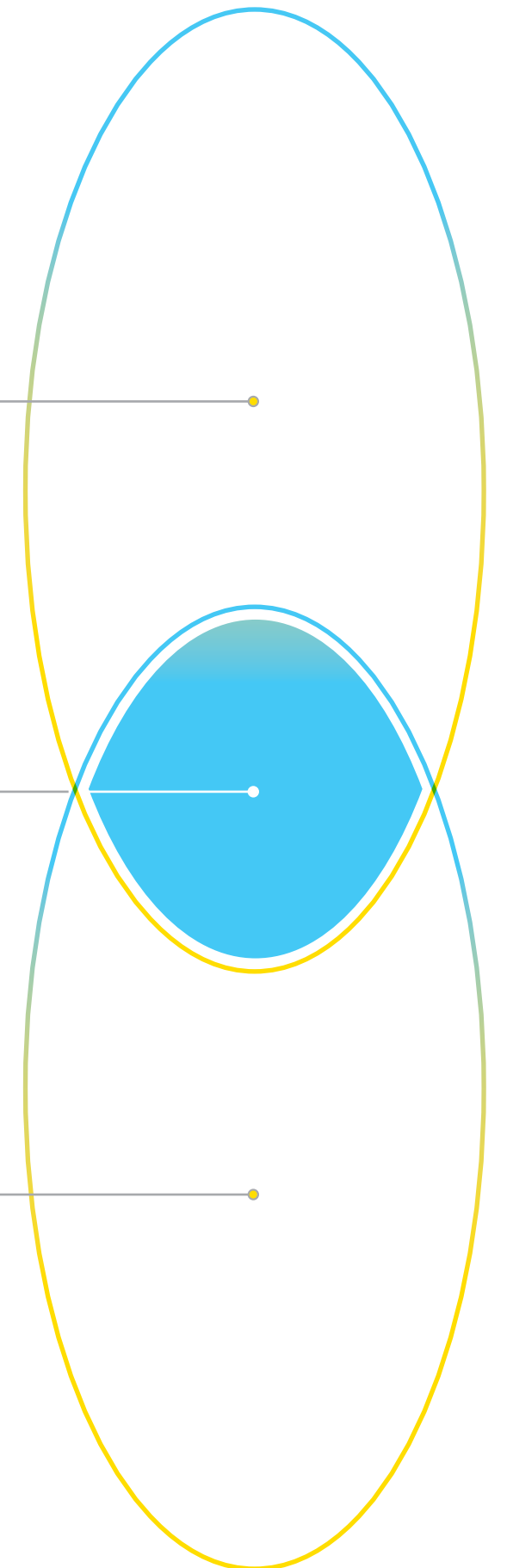
Programs, activities and tools that **connect the public to science** to engage and create informed dialogue.

Teacher education and support

Support **effective STEM teaching capacities** in teacher education and throughout careers.

Science communication

Programs, activities and tools to help professionals (such as journalists, writers, researchers and policy experts) connect to the public and create informed dialogue.



Market scan

Canada

- York University
yorku.ca
- University of Toronto
utoronto.ca
- Let's Talk Science
letstalkscience.ca
- Canadian Science Publishing
nrcresearchpress.com
- University of Ontario Institute of Technology
uoit.ca
- University of Waterloo
uwaterloo.ca
- Actua
actua.ca
- Science Writers and Communicators of Canada
sciencewriters.ca
- McMaster University
mcmaster.ca
- Origins Institute
origins.mcmaster.ca
- Royal Canadian Institute for Science
rciscience.ca
- Science Media Centre of Canada
sciencemediacentre.ca
- Community Outreach Centre at Queen's University
educ.queensu.ca/coc
- University of Guelph
uoguelph.ca
- Society for Canadian Women in Science and Technology
scwist.ca

- Association des communicateurs scientifiques du Québec
acs.qc.ca
- Concordia University
concordia.ca
- Mount Saint Vincent University
msvu.ca
- University of Ottawa
uottawa.ca
- Canadian Institute for Advanced Research (CIFAR)
cifar.ca
- Canadian Institutes of Health Research (CIHR)
cihr-irsc.gc.ca
- The University of British Columbia
ubc.ca
- Dalhousie University
dal.ca
- Laurentian University
laurentian.ca
- Toronto Writers' Centre
writerscentre.ca
- College of Arts & Science Science Outreach at University of Saskatchewan
artsandscience.usask.ca/scienceoutreach/
- Pearson
pearson.com

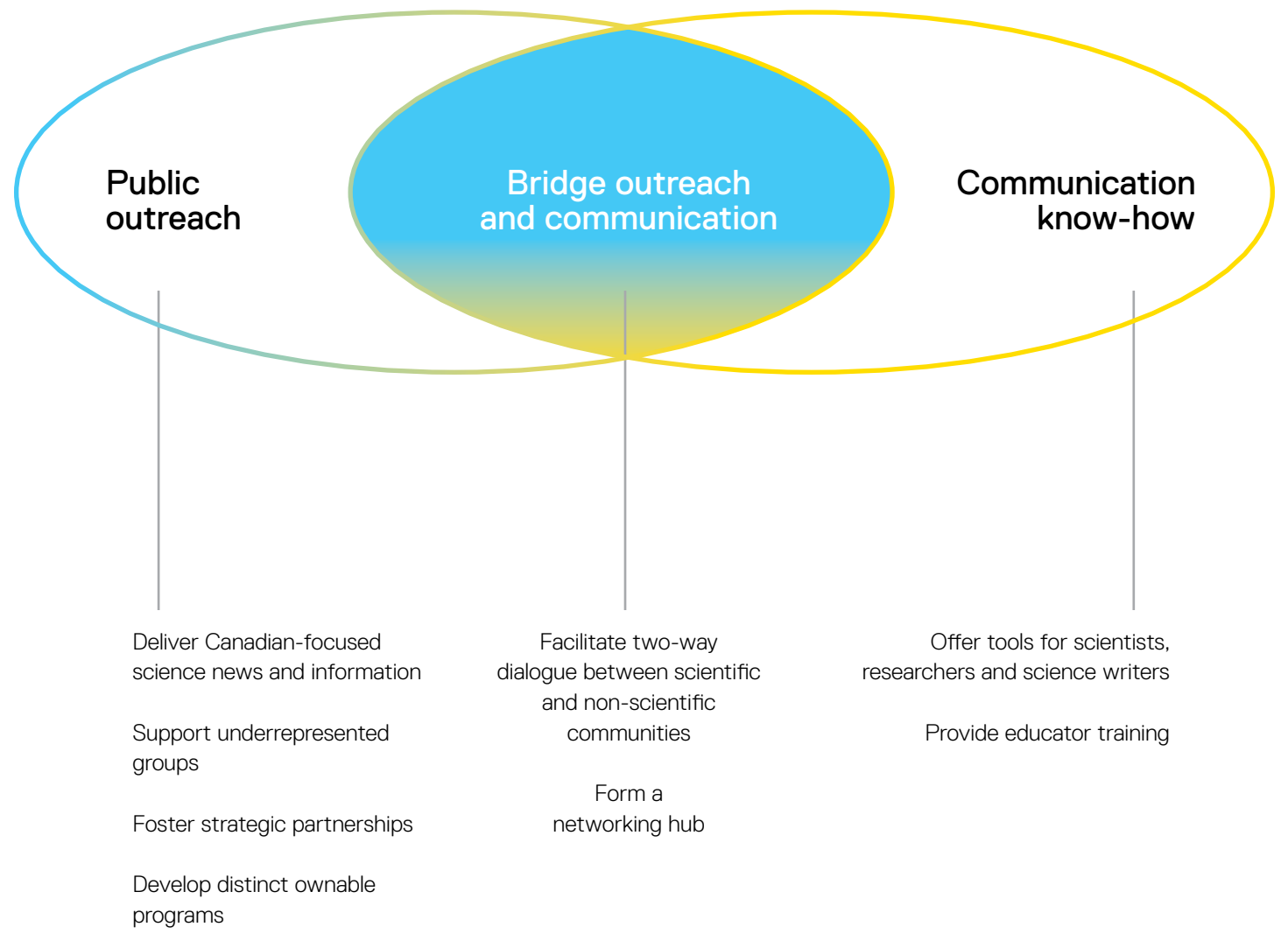
USA

- Alfred P. Sloan Foundation
sloan.org
- Charles Darwin Foundation
darwinfoundation.org
- The Kavli Foundation
kavlifoundation.org
- American Association for the Advancement of Science
aaas.org
- Sense about Science
senseaboutscience.org
- Youth Science Center
youthsciencecenter.org
- National Association of Science Writers
nasw.org
- World Federation of Science Journalists (WFSJ)
wfsj.org
- Trellis Science
trellis-science.com
- Scitable by Nature Education
nature.com/scitable
- Johns Hopkins Whiting School of Engineering
engineering.jhu.edu
- Cornell University
cornell.edu
- The Science Network
thesciencenetwork.org
- ResearchGate
researchgate.net
- Science Media Exchange
scimex.org
- CurioCity
explorecuriocity.org
- edX
edx.org

Other

- New Zealand Association of Scientists
scientists.org.nz
- Stempra
stempra.org.uk
- Australian Science Media Centre
smc.org.au
- Australian National University
anu.edu.au
- Alan Alda Center for Communicating Science
aldacenter.org
- Questacon
questacon.edu.au
- Science Media Centre NZ
sciencemediacentre.co.nz

Identified opportunities and strengths





Naming and brand identity

Positioning

The centre is the active agent for a science-literate culture and a scientifically engaged nation. We activate and strengthen connections between scientists, educators, communicators and the public to ensure everyone can contribute to deepening our collective understanding of the world and our place in it. With our partners, we co-create innovative programs and tools to advance public engagement, science communication and effective science resources.

Criteria for our name

- 1) **Accuracy:**
Does the name capture identified positioning?
- 2) **Relevance:**
Will the name resonate with researchers, students, partners and the public?
- 3) **Ownability:**
Is the name memorable, unique and not easily confused with others?
- 4) **Evolution:**
Will the name allow for growth and evolution of the centre?
- 5) **Practicality:**
Is the name easy to read, say, spell and understand?



Validation research

After name exploration with Trajectory and key Ryerson stakeholders, The Strategic Counsel conducted research to examine reactions to three candidate names for the centre, and to assess perceptions of the centre's purpose, positioning and proposed activities. A total of 750 engaged Canadians (excluding Quebec) between the ages of 16 and 65 completed an online survey. Respondents were screened to exclude those who don't pay attention to and/or aren't interested in learning more about science stories they see reported in the media. The key findings of the surveys are as follows. The name SciXchange was the most preferred. There was a general public interest, across the nation, in the Ryerson centre. People clearly saw a role for universities in general, and Ryerson in particular, in advancing the public's understanding of science. Few said that they found it "very" easy to understand science stories reported in the media; most found it "somewhat" easy. Television and online resources, especially video, as well as newspaper articles, were the preferred formats.

Internal review (team workshop)

In the final stage of strategic planning, the SciXchange internal core team of staff and students conducted a workshop to discuss strengths, weaknesses, opportunities and threats (SWOT) and strategic priorities. Some of the challenges identified were the following: lack of formal training in science communication, unequal representation in subjects, student staff turnover, difficulties engaging students outside of science, low turnout to some events, requests for last-minute programming and lack of awareness of the centre's outreach initiatives. To increase the internal profile and promotion of the centre throughout the university, an official launch of the newly rebranded centre, SciXchange, was planned for March 2017.

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