



ENGENDERING SUCCESS IN STEM

Project RISE: Realizing Identity-Safe Environments

Project Goals and Reasons to Partner with Us

- Project RISE is part of a multi-year federally funded research initiative that aims to create positive cultural change for women and men working in science, technology, engineering, and math.
- This randomized control trial will use the best scientific practices to test the effectiveness of a cutting-edge intervention designed to mitigate implicit bias and create cultural change.
- Participants will complete a half-day intervention workshop (see Workshop Architecture) delivered at your company and outcome surveys conducted in the next 2 years (see Assessments).
- We seek Industry Partners to support this integrative evidence-based intervention designed to develop the most effective tools and best practices for enabling all employees to excel.

Our Expertise and Credentials

- The ESS Consortium includes three **Canada Research Chairs** and a team of leading scientists who have published over 250 research articles on implicit gender bias and bias reduction.
- As an independent team of scientists, we are ideally situated to use objective data-driven methods to identify best practices and tools for creating a positive, diverse company culture.
- The Consortium includes two **Deans of Engineering**, three **NSERC Chairs for Women in Science and Engineering**, and two named chairs for Women in STEM representing **five leading research universities in Canada and two international universities**.
- Our STEM experts have proven success in outreach efforts: The entering engineering cohorts at UBC and Waterloo are close to 30% female thanks to the work of Drs. Croft and Wells.

Benefits to Industry Partners

- Involvement in an integrative, evidence-based intervention to improve workplace culture.
- Reports tailored to your company to identify areas of success and areas for improvement.
- One-on-one consultation with team members on your company's internal assessment tools.
- Early access to annual infographic and video white papers and best practices toolkits (for sample white papers from our group, see: successinstem.ca/resources).
- Invitation to attend our annual ESS Consortium conferences to learn about other best practices.

Contributions from Industry Partners

Estimated time commitment from employees who consent to participate includes:

- 4.5 hours up front, 3.5 in Year 1, and 2 hours in Year 2 (i.e., 10 hours within 2 years).
- First is a half-day workshop on Collaborative Cultures (see Workshop Architecture), using proven techniques to increase team cohesion/leadership effectiveness.
- Years 1 and 2 involve brief 5-7 minute end-of-day surveys on 10 consecutive days to capture social dynamics at work, plus three slightly longer (20-25 minute) surveys (two in Year 1; one in Year 2).

Estimated commitment from industry partners includes:

- \$12,000 cash in Year 1 for each pair of workshops (two workshops minimum)
 - Each workshop should include 15-30 employees (at least 33% women).
- In-kind commitment that includes:
 - 10 hours of employee time for a minimum of 30 personnel (at least 33% women).
 - Staff support recruiting employees for the research and compiling HR info or policies.
 - Space for the workshops and catering for the day (coffee/tea and lunch).





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Workshop Architecture

Workshop attendees will be male and female professionals in science, technology, engineering, or mathematics (STEM) occupations who will meet in person for a half-day group workshop. Participants will be randomly assigned to complete one of two workshops on Collaborative Cultures:

Workshop A: Men and women complete exercises designed to: (a) build mutual trust and respect, (b) reinforce shared values in their field, (c) convey evidence-based information about the existence and effects of implicit gender bias, (d) engage in dialogues about gender bias, and (e) foster action plans for allyship. Workshop materials derive from RISE's own research findings, other successful social-psychological interventions, and implicit bias measures from Harvard's Project Implicit.

Workshop B: Men and women complete exercises designed to: (a) experience leadership styles, (b) reinforce the value of leadership, (c) convey evidence-based information about leadership identities specific to STEM, (d) engage in dialogues about leadership challenges, and (e) foster action plans for leadership development. Workshop materials are informed by the University of Toronto's Troost Institute for Leadership Education in Engineering (iLead), the University of Toronto's Rotman School of Management, and research on leadership development.

Assessments (Years 1-2)

The metrics listed below will be used to assess the effectiveness of the intervention for:

a. Creating beneficial social connections

- Social support and belonging at work
- Positivity of workplace interactions
- Structure of social networks at work
- Acting as an ally to women in STEM

b. Reducing gender bias

- Implicit associations of Science and Engineering with men more than women
- Perception of biases as a problem
- Personal efforts to counteract any biases

c. Benefiting personnel

- Self-efficacy, workplace burnout, and organizational commitment
- Identity-based concerns at work
- A sense of meaningful work
- Development of leadership identity

d. Benefiting the organization

- Perceptions of current organizational culture and gender-inclusive policies
- Attitudes toward equity and inclusion
- Efforts to enact leadership at work
- Efforts to sponsor or mentor others

How to Become a Partner

To be a leading company in this scientific initiative aimed at mitigating gender bias and improving work culture, please register via SuccessinSTEM.ca or email our team at RISE@psych.ubc.ca.





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OUR TEAM

Experts in the Science of Gender Bias



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Steve Spencer, Ph.D.
Professor of Psychology
The Ohio State University

Experts in the Science of Bias Reduction



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Experts in STEM Outreach



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Dean of Engineering
University of Guelph



Lesley Shannon, Ph.D.
NSERC Chair for WSE
SFU Engineering

PARTNERS

UNIVERSITIES

University of British Columbia
Simon Fraser University
University of Toronto
University of Waterloo

PROFESSIONAL ASSOCIATIONS

Canadian Institute of Mining, Metallurgy, & Petroleum
Engineers Canada
Engineers and Geoscientists BC

NON-PROFIT CHANGE AGENTS

Engineering Change Lab
Gender and the Economy
WinSETT Centre
NSERC Chairs for Women in Science and Engineering
Ontario Network for Women in Engineering
Society for Canadian Women in Science and Technology

SCIENCE EDUCATION

Actua
Engineering Science Quest
Geering Up
Science Alive
Science World

ENGINEERING & RESEARCH ORGANIZATIONS

City of Vancouver
City of New Westminster
CloudArmy
General Motors
Magnitude | Simba
McElhanney Consulting Services
PCL
National Research Council
Teck Resources
TRIUMF



THE UNIVERSITY OF BRITISH COLUMBIA

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To participate or learn more, email RISE@psych.ubc.ca
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UNIVERSITY OF WATERLOO