GOVERNMENT PARTNERSHIP
GLOBAL PERSPECTIVES

A UIDP WEBINAR SERIES

Strengthening
University-Industry
Partnerships

January 28, 2021 12-1 PM EDT

Professor Alejandro Adem

Natural Sciences & Engineering Research Council

Moderator
Lisa Amini
IBM Research Cambridge

January 28, 2021 | The webinar will begin momentarily

Strengthening University-Industry Partnerships

Disclaimer

UIDP materials, which include publications, webinars, videos, and presentations, reflect an amalgamation of the experiences and knowledge of those who participate in UIDP activities. The views and opinions expressed in UIDP materials do not necessarily reflect the official policy or position of any individual organization or the UIDP. At no time should any UIDP materials be used as a replacement for an individual organization's policy, procedures, or legal counsel. UIDP is not a lobbying organization and UIDP materials are not intended to be used to influence government decisions.

APRIL 12-16

UIDP virtual 2021

- Diverse, comprehensive agenda
- Serendipity networking
- Topics curated for YOU

Learn more at
https://bit.ly/UIDPVirtual2021

Keynotes

Sethuraman Panchanathan
NSF Director

Abigail Stevenson
Vice President, Mars Advanced Research Institute

Vivek Wadhwa
Author, Academic, Entrepreneur

Holden Thorp
Editor-in-Chief, *Science*

…and incredible U-I presenters, including

Nerissa Draeger
Lam Research

Sean Evans
Johnson & Johnson

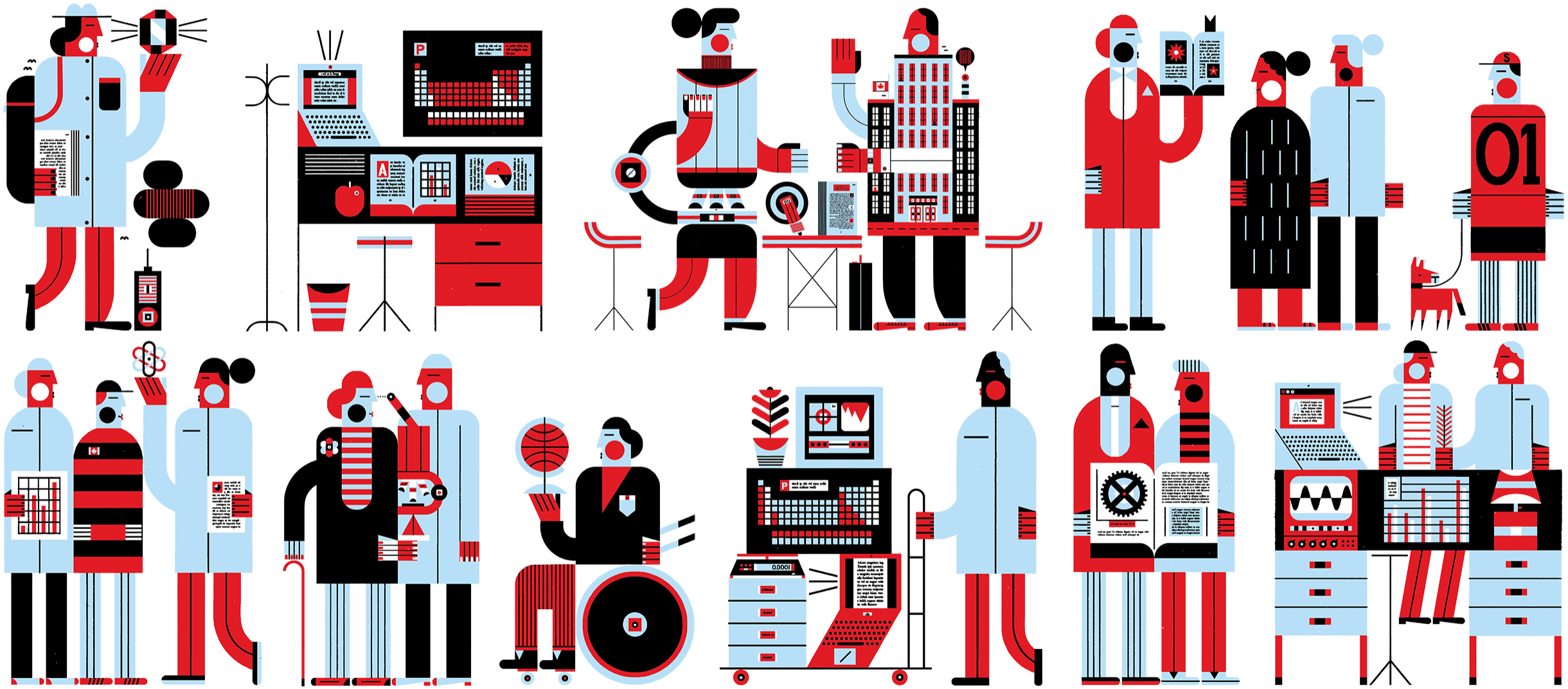
Wendy Yajnik
Novartis

UIDP Strengthening University-Industry Partnerships

NSERC
CRSNG

Breakthrough answers
to timeless questions

Des réponses innovantes
à de grandes questions



Natural Sciences and Engineering
Research Council of Canada

Conseil de recherches en sciences
naturelles et en génie du Canada

Canada

Natural Sciences and Engineering Research Council of Canada

Insights & approaches to enhance research collaboration

Prof. Alejandro Adem, President, NSERC

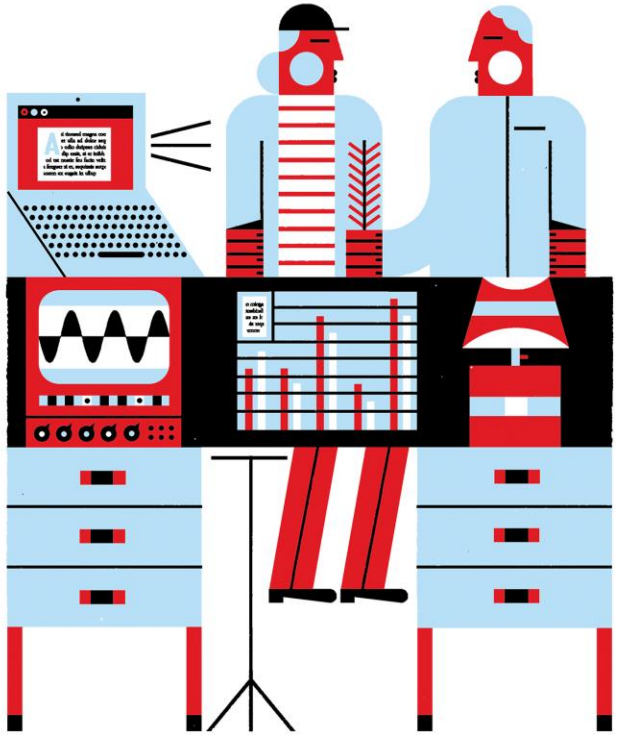
January 2021

Table of contents

1. **NSERC's Role** in Canada's Funding Landscape

2. **Alliance Grants**, NSERC's New Partnerships Program

3. **NSERC's National and International Partnerships**, leveraging expertise



NSERC’s role in Canada’s innovation ecosystem

- NSERC funds post-secondary research and training in the natural sciences and engineering
- Supports 76 universities and 110 colleges & polytechnics
- 12,400 professors
- 3,800 industry partnerships
- 37,700 students and fellows

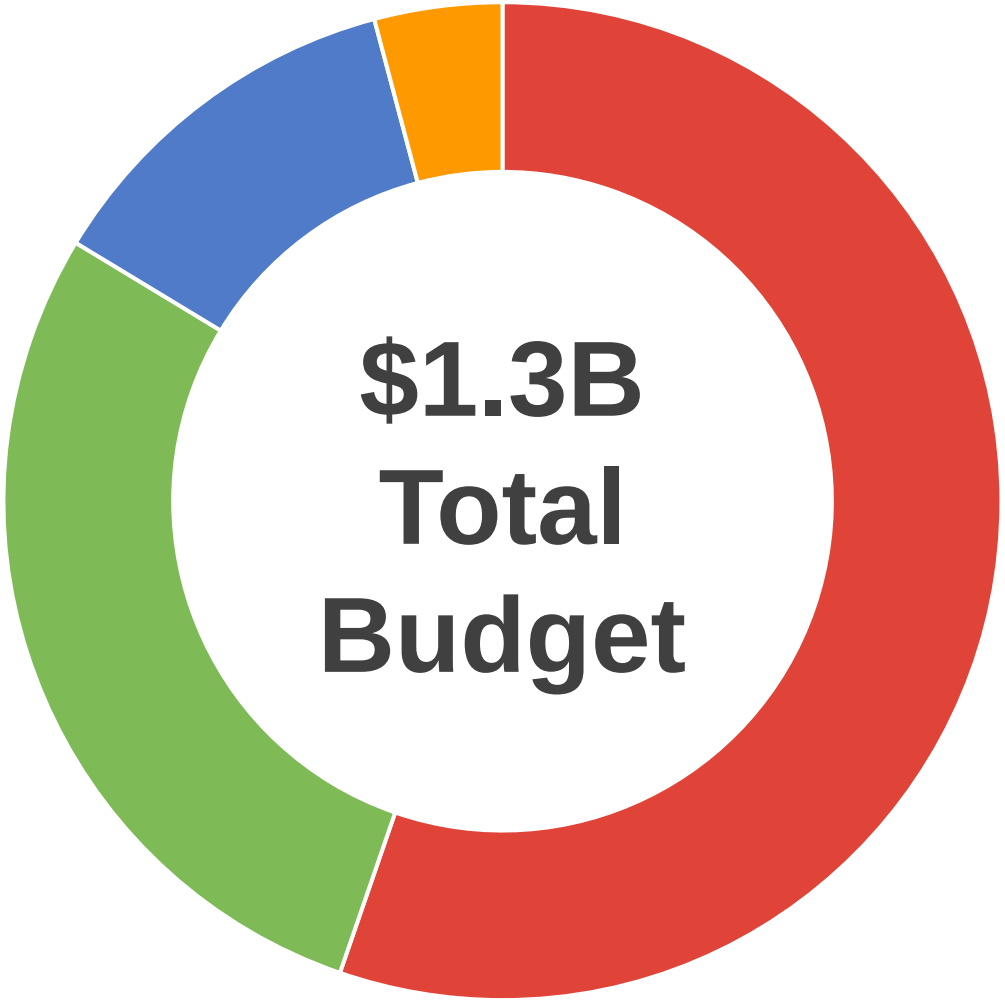
NSERC's budget breakdown

$727M
Discovery Research

$393M
Research Partnerships

$155M
Research Talent and Training

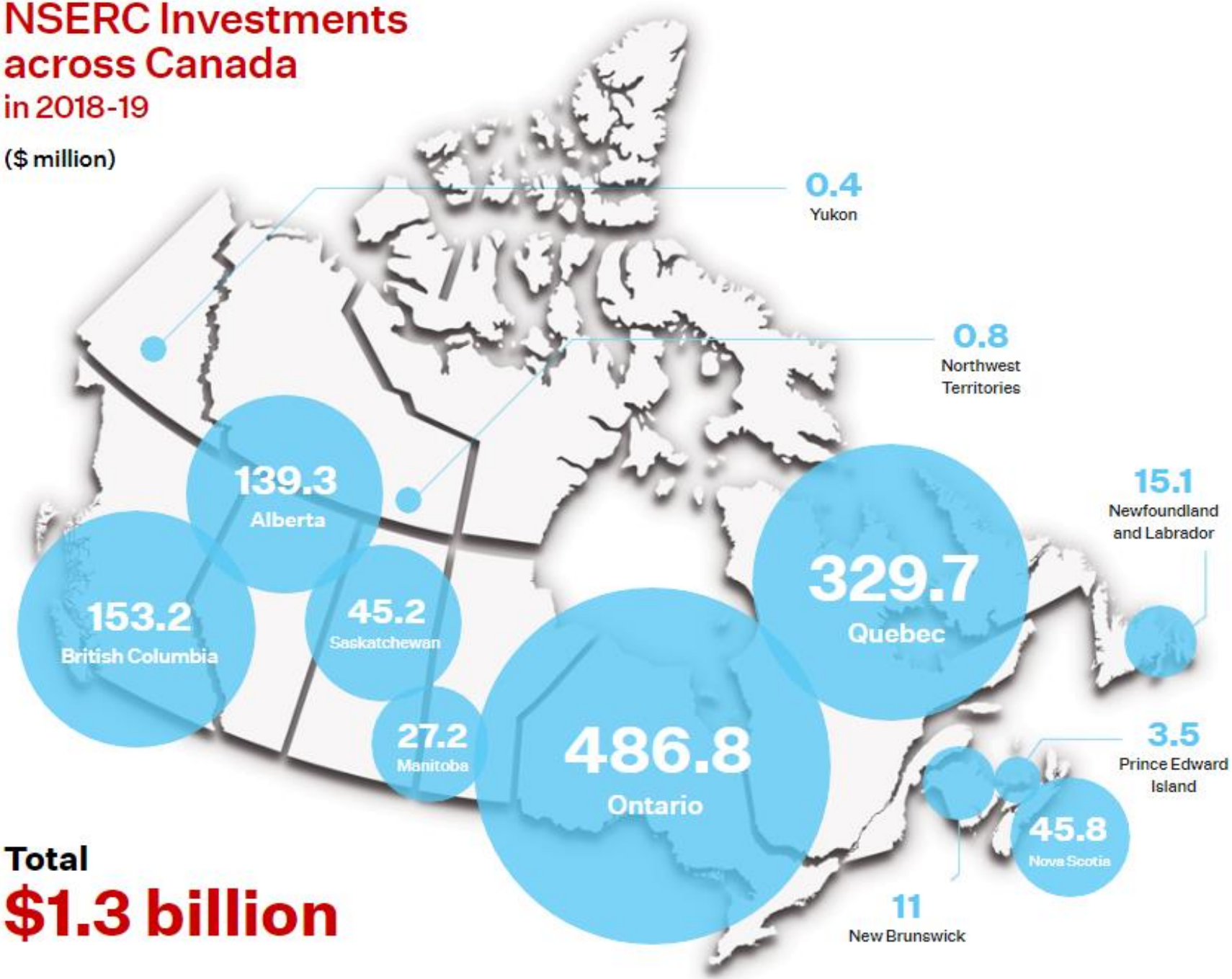
$55M
Administrative



NSERC Investments across Canada

in 2018-19

($ million)



Total

$1.3 billion

Celebrating our Top Researcher

Remarkable discoveries that put the next generation of medical treatments within our grasp.

PLAY VIDEO

Alliance partnerships program

Program objectives

SUPPORT research in the natural sciences and engineering (NSE) led by strong, complementary, collaborative teams.

ENABLE collaborations with a broader set of partner organizations (private, public, not-for-profit sectors)

CREATE economic, social and/or environmental benefits

REMOVE barriers and provide more flexibility in building partnerships that will effectively generate new knowledge and accelerate the application of research results for the benefit of Canadians.

TRAIN new researchers in areas that are important to Canada and to the partner

Key notes

- **FLEXIBLE** from $20K to $1M, per year, Duration: 1-5 years
- **NO DEADLINE** apply at any time
- **STREAMLINED** review process
- **INTERNATIONAL** collaborations can be incorporated at the proposal stage
- **INTERDISCIPLINARY** 30% of grants can be spent on disciplines outside the natural sciences and engineering

1
funding opportunity

2
options

Both options have the same:

- Objectives
- Evaluation criteria
- Peer review process for overall merit assessment
- Academic community and types of partner organizations served
- Requirements for the recognition of partner organizations

Alliance option 1

Grant size

$20K to $1M per year

The limits of the funding range are not yearly averages.

Cost-sharing

50% to 66.7% from NSERC

Determined by type of partnership and global size of the partner organization(s) recognized for cost-sharing.

Alliance option 2

Funding

Up to 90 to 100 % from NSERC

if the characteristics are met and depending on the type of partner organizations

Cost-sharing

at least 1 partner organization

must have contributions recognized for cost-sharing, even if NSERC is providing 100% of the funding

Alliance option 2

societal impact
making connections
broad outcomes

The proposal must meet specific characteristics to qualify for option 2

National University–Industry Partnerships

- **I-POCUS: An Intelligent Point-of-Care Ultrasound System for Neonatal Intensive Care Units in Canada's Hospitals. Ryerson University with Dapasoft Inc.**
- **Sustainable Indoor Intelligent Aquaponics Farming based on Industry 4.0. University of Alberta with NutraPonics Canada Corporation.**
- **Lighting that is Easier on the Eyes and the Environment Memorial University of Newfoundland and Lumentra Inc.**

Alliance Partnerships with Government Organizations

Platforms for '*Societal Co-leadership*' and '*Public Impact*'

2018 - Whale Science For the Future.

NSERC and Fisheries and Oceans Canada

Oceans Protection Plan

2019 - Advancing Climate Change Science in Canada.

NSERC with Environment and Climate Change Canada and Health Canada

Pan-Canadian Framework on Clean Growth and Climate Change

2020 - Plastics science for a cleaner future.

NSERC with Environment and Climate Change Canada

Canada's Plastics Science Agenda (CaPSA)

Alliance Grants

Powering international partnerships

- The Alliance program enables university researchers to collaborate with international private-sector, public-sector or not-for-profit organizations.

- NSERC fosters an open and connected research environment to facilitate international partnerships.

Alliance partnerships program

Powering international partnerships

- In 2020, NSERC and Innovate UK (UKRI) partnered to launch a call for proposals on quantum technologies

- December 2020, NSERC announced a partnership with the German Federal Ministry of Education and Research to fund collaborative research projects on hydrogen and fuel cell technologies

Joint Canada-UK projects on Quantum Technologies

- 8 grants awarded to share £2M from the UK and C$4.4M total investments from Canada to foster research collaborations between academia, industry and government partners
- Collaborative project to fund quantum technologies in the fields of secure communications, sensing and imaging, and computing and simulation

University of Waterloo & Bristol University
University of Waterloo & University College London
Université Sherbrooke & Oxford Instruments
University of Waterloo & Bristol University
University of Saskatchewan & Nottingham University
McGill University & University College London
Institut national de la recherche scientifique & Heriot-Watt University
Institut national de la recherche scientifique (INRS) & University of Sussex

International Universities and Industry Partnerships

1. Reference-Frame Independent Quantum Communication for Satellite-Based Networks

UK: *Craft Prospect Ltd., University of Bristol, University of Strathclyde*

CANADA: *University of Calgary and Waterloo, COM DEV International Ltd, Canadian Space Agency, Ontario Research Fund* Excellence

2. Advanced Manufacturing Toolkit for Quantum Sensing and Quantum Computing

UK: *Oxford Instruments, Nanotechnology Tools Limited, University of Glasgow*

CANADA: *Université de Sherbrooke, Oxford Instruments, SBQuantum Inc., PROMPT, Nord Quantique*,

3. Making noisy quantum processors practical: from theory to applications

UK: *Phasecraft Limited, Univ. of London – Univ. College London*

CANADA: *University of Waterloo, Perimeter Inst for Theoretical Physics, Quantum Benchmark Inc.*

NSERC Synergy Awards for Innovation

Celebrating partnerships between universities, colleges and industry

- R&D in the natural sciences and engineering
- Recognition of tangible benefits
- Universities receive $200,000 grant
- Industrial partners $30,000 valid for Alliance grant cash contribution

Synergy Award for Innovation
Category: Two or More Companies
University of Calgary and University of Alberta
Microseismic Industry Consortium

Datasets and algorithm modelling for extraction industries and environmental protection

Synergy Award for Innovation
Category: Small and Medium-Sized Companies
Ryerson University
Warranty Life

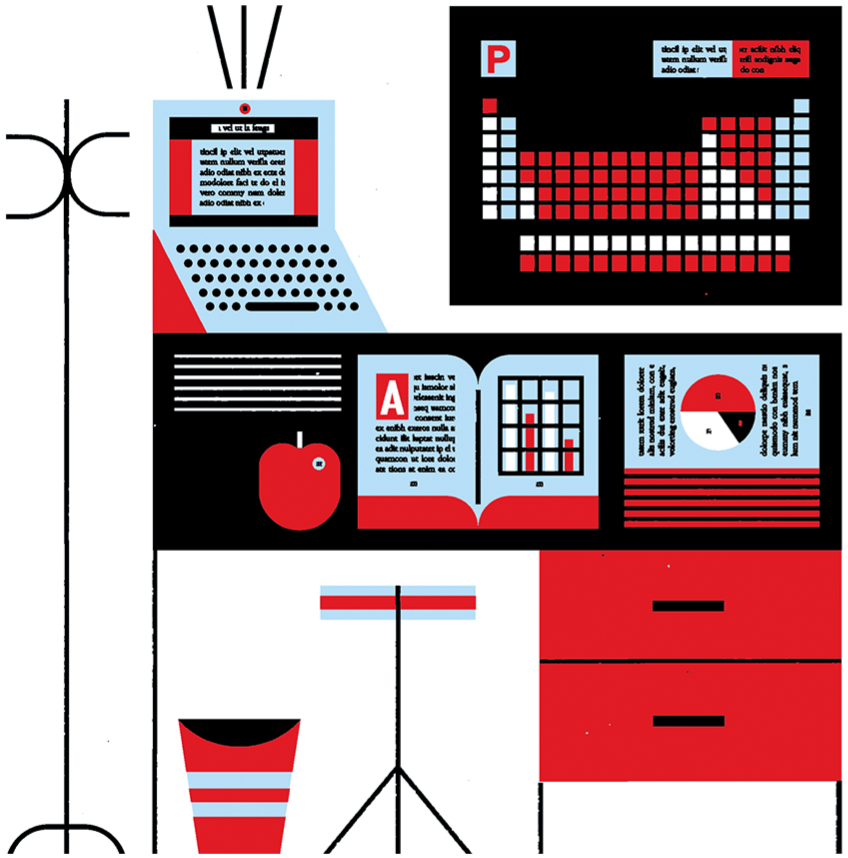
Social analytics and AI to optimize consumer warranties

Synergy Award for Innovation
Category: Two or More Companies
McMaster University
FCA Canada Inc.

Innovation for electric and hybrid vehicles

Our research partnerships toolkit

Find NSERC-funded experts & research partners	○ **cognit.ca** ○ **NSERC Awards Database**
NSERC's investments & partnerships	○ **NSERC funding Dashboard**
Partnership opportunities	○ **Alliance**



Questions?

alliance@nserc-crsng.gc.ca
international@nserc-crsng.gc.ca

Connect with us

@nserc_crsng

facebook.com/nserccanada

UIDP

Strengthening
University-Industry
Partnerships

UIDP Webinar
Running to Stand Still: Legislative Realities for the New Administration and 117th Congress

February 10, 2021 12–1 p.m. EST

Leslee Gilbert
Van Scoyoc Associates

GOVERNMENT PARTNERSHIP
GLOBAL PERSPECTIVES

A UIDP WEBINAR SERIES

March 25, 2021 12-1 P.M. EST

Alice Frost
UK Research and Innovation

Alice Frost,
Director of Knowledge Exchange Policy,
Research England

Strengthening
University-Industry
Partnerships