



NSERC-CSE Research Communities Grants

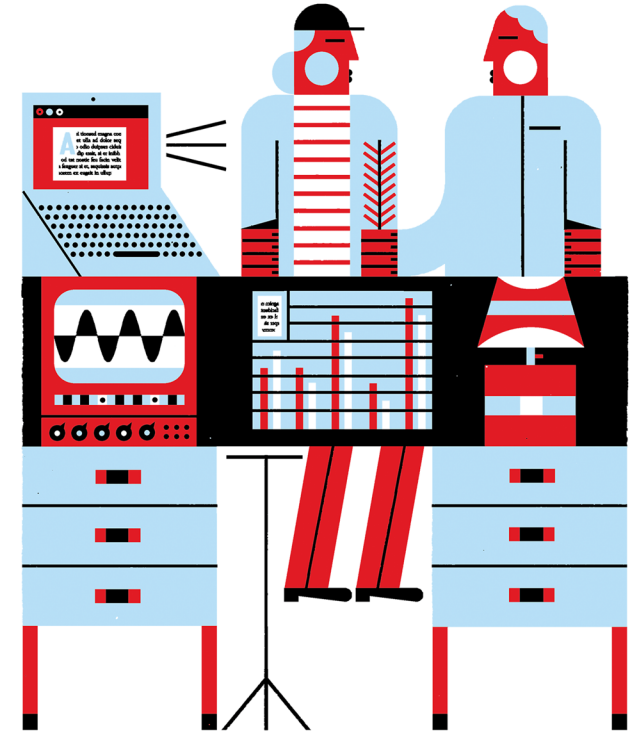
Joint funding opportunity between NSERC and the Communications Security Establishment (CSE)

Webinar - 2023

Table of contents

NSERC-CSE Research Communities Grants

1. The collaborative research partnership
2. CSE background and objectives
3. Benefits
4. Funding and duration
5. Who can apply
6. Application process
7. 2023 Call for Proposals & Timeline



NSERC-CSE Research Communities Grants



Launching a collaborative research partnership to support large groups of researchers from multiple Canadian universities to conduct unclassified research in areas of strategic importance to CSE and the Government of Canada

Canada

NSERC-CSE Research Communities Grants

Context

- Communications Security Establishment (CSE) is Canada's national cryptologic agency, providing the Government of Canada with information technology security and foreign signals intelligence.
- CSE is home to the Tutte Institute for Mathematics and Computing (TIMC), where researchers work with government, academia, and industry to tackle scientific challenges related to CSE's mission.
- NSERC-CSE Research Communities Grants will:
 - Build awareness within the Canadian academic community of research problems of interest to CSE and to Canada's national security and cyber security
 - Enable Canadian researchers to generate new unclassified knowledge in domains of national interest to Canada

NSERC-CSE Research Communities Grants

Benefits

- Supports academic research on cutting-edge technologies
- Provides outstanding training opportunities for HQPs in areas of national importance
- Rewards collaborative multi-institutional engagement
- Furnishes opportunity to work with CSE researchers to tackle scientific challenges related to CSE's mission to protect Canada's national security

NSERC-CSE Research Communities Grants

Funding and duration

- Four calls between 2023 and 2028
- Awarded through NSERC's [Alliance grants](#) program
- Funding provided in equal parts by NSERC and CSE
- CSE is the sole partner on the projects
- Covers 100% of the eligible costs of research

Duration:

Four years*

Funding by call:

One large project:
\$1,400,000 per year

or

Two small projects:
\$700,000 per year

(*except for the last call that will last only three years)

NSERC-CSE Research Communities Grants

Who can apply

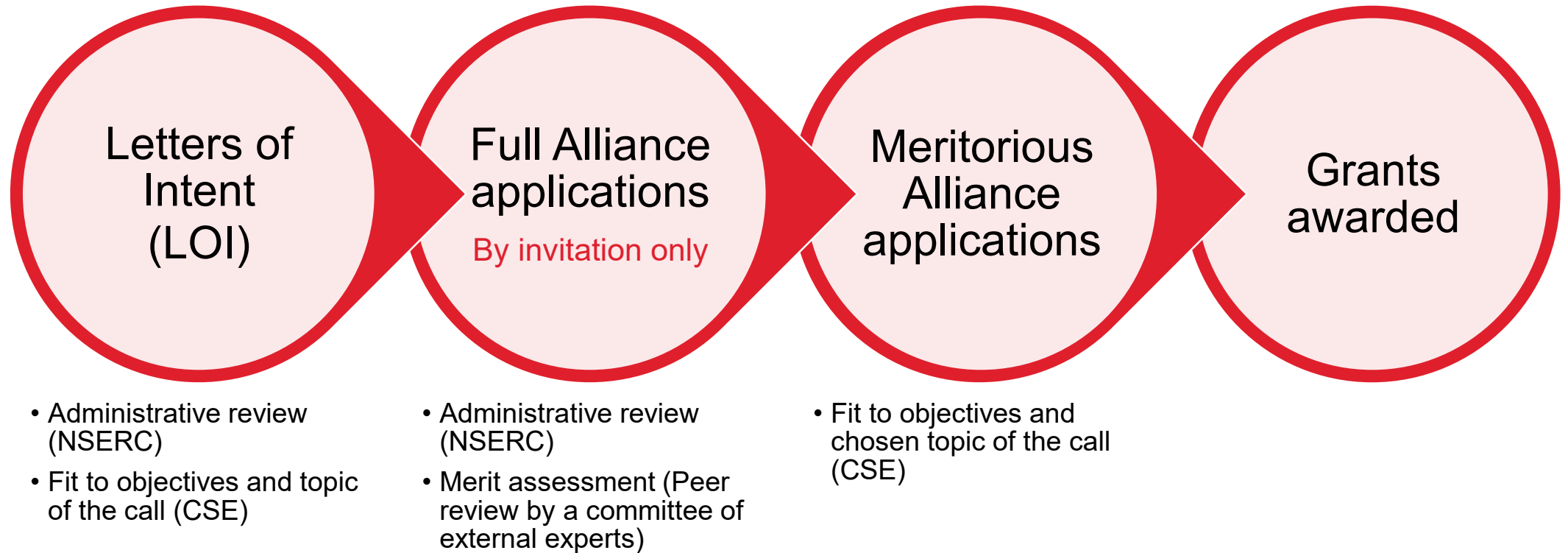
- Canadian university researchers eligible to receive NSERC funds
- As a group with eligible co-applicants – to form a **Research Community**
- Only one application per researcher will be accepted under this call, as either applicant or co-applicant

Some members of the Research Community will be invited to conduct classified research at CSE in Ottawa throughout the duration of the grant

- When applying, at least one of the applicants must be a Canadian citizen, **eligible for a TOP SECRET security clearance**, and willing to work in Ottawa at CSE for at minimum two weeks per year.
- Additional members of the Research community (i.e., professors, students and post-doctoral fellows) will have to satisfy the preceding requirements over the grant period.
- The members of the Research community must be identified in the letter of intent and cannot be changed (applicant and co-applicants) in the full proposal.
- CSE reserves the right to review and approve the list of Research Community members prior to their engagement with a Research Community.
- The full **Alliance application** will only describe the activities and the budget related to the unclassified component of the research.

NSERC-CSE Research Communities Grants

Application process



Applicants and co-applicants must be identified in the letter of intent and cannot be changed in the full proposal

NSERC-CSE Research Communities Grants

Application

Step 1 – Letter of intent

Your LOI will include

- A summary for public release and up to ten keywords
- A completed **LOI template** (maximum of **three pages**): outlines the proposed research and expected benefits, shows how the project fits with the objectives and chosen topic of the call and describes the research team, **including the names of the researcher(s) (applicant and/or co-applicant(s)) who are eligible for a TOP SECRET clearance**
- How the funds will be used (preliminary budget and budget justification)
- A completed [personal data form with CCV attachment](#) (NSERC form 100A) for the applicant and all co-applicants

Submit your LOI

- Log in to [NSERC's online system](#) and select *Create a new form 101*
- Select Research partnerships programs, then *Alliance grants*
- For the Proposal type field, select *Letter of Intent*
- For the Type of call field, select *CSE – Research Communities* from the drop-down menu

NSERC-CSE Research Communities Grants

Application

Step 2 – Full application

Evaluation of the LOI

- Administrative assessment (by NSERC)
 - Eligibility of applicant / co-applicants. [NSERC eligibility criteria for faculty](#) apply.
- Fit to objectives and chosen topic of the call (by CSE) using the following criteria:
 - Alignment of proposed research project with topic of the call, including consideration of breadth and/or depth of focus
 - Likelihood of impact of proposed research project on CSE operations
 - Potential for direct collaboration between Research Community members and CSE researchers

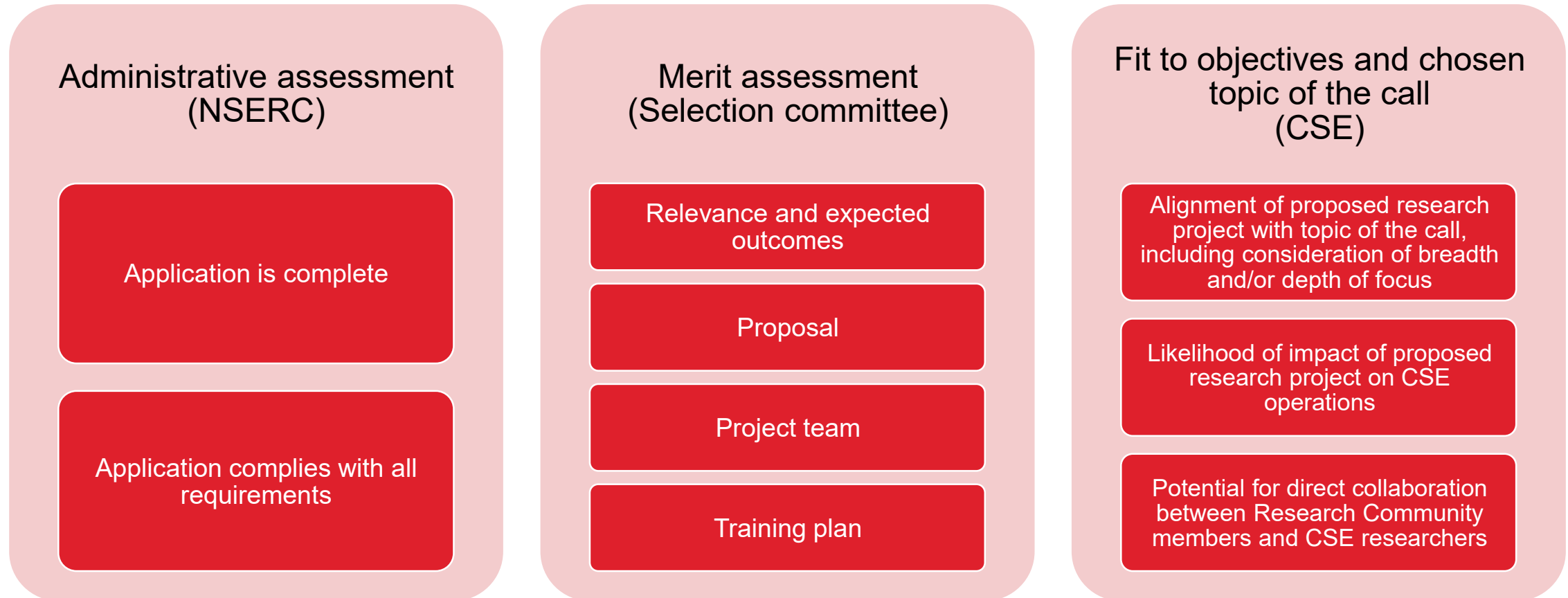
Full application

- **NSERC will invite selected applicants to submit a full Alliance application**
- Instructions will be provided in the invitation letter

NSERC-CSE Research Communities Grants

Application

Step 2 – Full application – Review process



NSERC-CSE Research Communities Grants

Call for Proposals 2023

**Robust, secure,
and safe artificial
intelligence (AI)**

- Generate new knowledge in robust, secure, and safe AI from either a model-centric or data-centric view
- Enhance the capacities of Canadian universities to undertake research related to robust, secure, and safe AI
- Train new generation of data scientists and engineers who are sensitive to the issues around robust, secure, and safe AI

NSERC-CSE Research Communities Grants

Call for Proposals 2023

**Robust, secure,
and safe artificial
intelligence (AI)**

- Generate new knowledge in robust, secure, and safe AI from either a **model-centric** or data-centric view
 - Models are robust in the presence of low-quality data
 - Examples include detection and handling of out-of-distribution data, anomaly detection and uncertainty estimation

NSERC-CSE Research Communities Grants

Call for Proposals 2023

**Robust, secure,
and safe artificial
intelligence (AI)**

- Generate new knowledge in robust, secure, and safe AI from either a model-centric or **data-centric** view
 - Emphasis on improving data quality to achieve the desired robustness
 - Examples include data understanding (including analysis of bias), data validation and cleaning, data augmentation

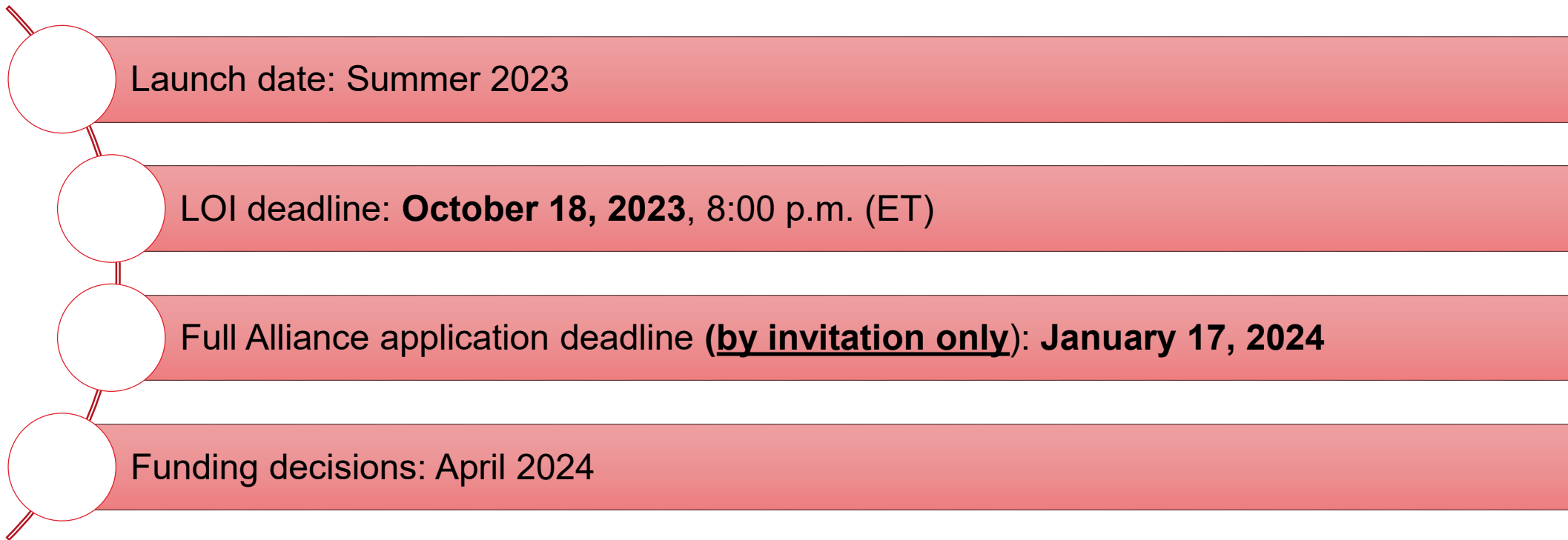
NSERC-CSE Research Communities Grants

Call for Proposals 2023

**Robust, secure,
and safe artificial
intelligence (AI)**

- Generate new knowledge in robust, secure, and safe AI from either a **model-centric** or **data-centric** view
 - Given the comparatively small amount of research on improving and/or responding to data quality issues, **CSE will favour proposals that incorporate data-centric approaches**

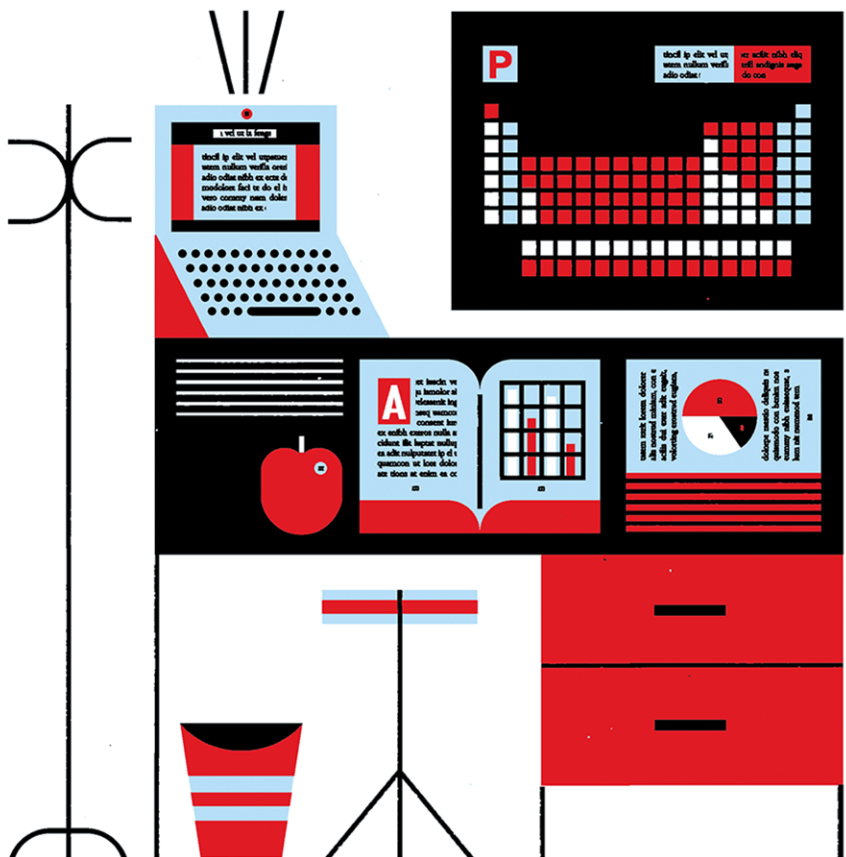
Timeline



NSERC-CSE Research Communities Grants

Important reminders

- CSE is the sole partner organization; no other partner organizations will be accepted.
- The grants will support unclassified research.
- The LOI and the full **Alliance application** will only describe the activities and the budget related to the unclassified component of the research.
- The applicant or one of the co-applicants, and some of the Research Community members will be invited to conduct classified research at CSE throughout the duration of the grant period.
- Researchers can submit only one application per call, as applicant or co-applicant.
- No changes in the research team composition (applicant and co-applicants) are permitted after NSERC and CSE review and approve an LOI.
- Individual projects can request a total of either **\$700,000** (small project) or **\$1,400,000** (large project) **per year** over four years.
- Funding of the first Research Community(ies) is planned to begin in April 2024.



Questions?

Call for joint NSERC-CSE Research Community projects focused on robust, secure, and safe artificial intelligence

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