

# NSF Global Centres 2024

## Use-Inspired Research Addressing Global Challenges through the Bioeconomy

Webinar

April 2024



# Objective of call

- We are looking for cutting-edge, interdisciplinary and use-inspired research on the **bioeconomy**.
- The intent is to support the creation of international hubs of research excellence that advance knowledge, empower communities, and generate discovery and innovative solutions at a regional, national, and/or global scale.
- International hubs are expected to be driven by a bold vision for high-impact, use-inspired basic research with collaborations that foster breakthroughs in knowledge.

# Call details

- **WHO:** Canadian university researchers in the social sciences, humanities, natural sciences and engineering fields working with collaborators from the US, and optionally Finland, Japan, Republic of Korea, and/or the UK.
- **WHAT:** Use-inspired research that addresses global challenges through the bioeconomy
- **HOW:** Driven by a bold vision for high-impact, use-inspired basic research and a strategy to integrate diverse perspectives from different disciplines, international partners and other stakeholders into the research over the course of the project

# Countries involved

- Lead partner: the American National Science Foundation (NSF)
- Anchor partners:
  - NSERC and SSHRC for Canada
  - National Endowment for the Humanities (NEH) for the USA
  - Innovation Funding Agency Bureau (BF) and Research Council of Finland (RCF) for Finland
  - Japan Science and Technology Agency (JST) for Japan
  - Ministry of Science and Information and Communication Technology (MST) for the Republic of Korea
  - UK Research and Innovation (UKRI): Biotechnology and Biological Sciences Research Council (BBSRC) for the UK
- Other international researchers (not US, FI, JP, KR, UK) are also permitted.
- Canadian researchers must meet NSERC/SSHRC eligibility requirements.



# Research topics

- Approach bioeconomy research through international and interdisciplinary collaborations
- Find synergistic responses to issues such as a net-zero economy, harnessing, engineering and rational modulation of biological systems to create goods and services.
- Canada is a global leader in many aspects of the bioeconomy, including the access to and use of biomass for advanced bioproducts and innovative solutions, forestry and agriculture, food and cultural sovereignty, sustainable resource management and a skilled workforce.

# Subtopics and cross-cutting themes

## Subtopics:

1. Leveraging Biodiversity Across the Tree of Life to Power the Bioeconomy
2. Biofoundries, using the Design-Build-Test-Learn process

## Cross-cutting themes:

- A. Public engagement and co-generation of research activities to strengthen the global science and technology enterprise
- B. Workforce Development and Education

# Deadline and amounts

- June 11<sup>th</sup>, 2024 at 8pm EST
  - US application also due June 11<sup>th</sup>
  - FI/JP/KR/UK documents: please see those sites
- Up to \$500,000 per Canadian team per year, for 4-5 years
- Must provide budget and justification for Canadian funds
- Must follow [Tri-Agency Guide to Financial Administration](#) (TAGFA) rules
- Total support from NSERC: \$1.5M/year, SSHRC \$0.5M/year for 5 years
- Hoping to support 3-4 NSERC projects and 1-2 SSHRC projects

# Application process

- Your US PI must submit a complete application package to NSF on behalf of your entire team.
- NSF applications involving a Canadian team of researchers must identify the Canadian team members.
- Your Canadian team members need to pick one person to act as Applicant and submit a streamlined application to NSERC on behalf of all Canadian team members (co-applicants and collaborators)
- SSHRC researchers apply via NSERC and SSHRC applicants and co-applicants will need to create an NSERC PIN



# Key elements of application package

- A completed form 101 (application for a grant)
- A proposal document (following the provided template)
- The Impact assessment form (appendix A) if applicable
- A budget (in Canadian dollars) and accompanying justification for the funds you are requesting from NSERC or SSHRC
- A completed personal data form with CCV attachment (form 100A) for the applicant and all Canadian co-applicants.
- Research security data form if applicable

Your US PI is responsible for submitting the NSF application package

# Proposal

Your proposal must contain the following:

- Name of US PI and title of proposal
- If applicable, the names and affiliations of collaborators and/or partners on the Canadian team from the private sector
- Narrative responses:
  - The expected outcomes and the benefit to Canada of your research
  - The roles and responsibilities of the Canadian team in the Global Centre
  - The Canadian training plan and the concrete innovative measures supporting equity, diversity and inclusion in the training plan

# Research security

- You may have industry and non-profit partners on your application, both from Canada and from other countries
- Canada's National Security Guidelines for Research Partnerships apply to NSERC-funded applications that involve one or more partner organizations from the private sector.
- You must fill out the Research Security module (Risk Assessment Form) as part of your application if you have one or more partner organizations that this applies to.

# Adjudication process

- NSERC and SSHRC will determine eligibility for Canadian applicants
- NSF will carry out the peer review process
- NSERC and SSHRC will allocate funding to successful Canadian applicants, based on the results of the NSF peer review
- Final decision early fall 2024
- The grants will be Partnership-type awards (SSHRC) or Alliance awards (NSERC)

# Merit review

## National Science Board merit review criteria

- Intellectual Merit: the potential to advance knowledge.
- Broader Impacts: the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

# Merit Review (cont'd)

## Specific criteria for the Global Centres review

- International collaboration: Why can this global challenge only be addressed through the complementary knowledge, skills, and resources of this group of international partners? What are the roles and responsibilities of the foreign collaborators in the Centre?
- Interdisciplinarity: Why can this global challenge only be addressed through the complementary knowledge, skills, and resources of this multi-disciplinary team?
- Use-inspired: How will the Centre utilize the Knowledge to Action Framework to produce results likely to contribute to addressing a societal challenge related to the Bioeconomy? What stakeholder groups will be involved in co-design and co-generation of the research to ensure that results are relevant and supportive of workforce development? Centres should address the ethical, legal and social aspects of the work.
- Fostering participation: How will the project foster the participation of the full spectrum of diverse talent in STEM (e.g., as PI, co-PI, senior personnel, postdoctoral scholars, graduate or undergraduate students, or trainees). This includes historically under-represented or underserved populations, diverse institutions including Minority Serving Institutions (MSIs), Primarily Undergraduate Institutions (PUIs), and two-year colleges, as well as major research institutions, including in EPSCoR jurisdictions.

# Frequently Asked Questions

# Answers to common questions

- Every team including any Canadian researchers will need to choose a Canadian lead who submits ONE application to NSERC incorporating the information of all researchers on the team.
- You must list a collaborator in our online system. Please list the US PI as a collaborator in your application; no need to include a bio-sketch.
- You may have industry and non-profit partners on your application, both from Canada and from other countries.
- No cash contributions are required from such partners.
- We do not yet know if we will be offering this Global Centres funding opportunity in the future.



# NSERC and SSHRC research

- Applications requesting funding from SSHRC also go through the NSERC portal
- SSHRC and NSERC will work together to review the applications and allocate funding appropriately
- You must specify in your budget which funding will be used to support NSERC research and which support SSHRC research
- We encourage multi- and inter-disciplinary research, and projects may be primarily NSERC-related, primarily SSHRC-related, or a combination of the two.

# Questions?

[RP-Initiatives-PR@nserc-crsng.gc.ca](mailto:RP-Initiatives-PR@nserc-crsng.gc.ca)

# Thank you

