



INTERNATIONAL GRANTS  
FOR COLLABORATIVE  
CLIMATE CHANGE RESEARCH

OFFICE OF RESEARCH SERVICES, FEBRUARY 28, 2023



# AGENDA

## 1. Overview of funding opportunities

- a) [2023 International Joint Initiative for Research in Climate Change Adaptation and Mitigation Competition](#)
- b) [National Science Foundation Global Centers initiative: Use-Inspired Research Addressing Global Challenges in Climate Change and Clean Energy](#)

## 2. Brief comparison of opportunities

## 3. Questions & Answers; Resources



2023 INTERNATIONAL JOINT INITIATIVE  
FOR RESEARCH IN CLIMATE CHANGE  
ADAPTATION AND MITIGATION  
COMPETITION



# INTERNATIONAL JOINT INITIATIVE

## WHO

- Collaboration among research funders from Brazil, Canada, Germany, Norway, South Africa, Switzerland, the United Kingdom, and the United States
- Led by Canada's New Frontiers in Research Fund (NFRF)
- Multi-country teams of eligible researchers partnering with a participating community or communities and integrating team members from vulnerable groups and appropriate stakeholders

# INTERNATIONAL JOINT INITIATIVE

## WHO

- **Vulnerable groups** = people and communities currently most impacted by the effects of climate change due to both **physical\*** vulnerability and **socioeconomic\*\*** vulnerability
  - \*heightened exposure to events related to climate change and/or poor infrastructure
  - \*\*limited resources to prepare for or to respond to the impacts of climate change, including knowledge, technology or financial resources, or owing to conflict, security, and fragility
- **Appropriate stakeholders** = depends on the project but likely from outside academia (e.g. businesses, governments, NGOs, community)

# INTERNATIONAL JOINT INITIATIVE

## WHO

- Person from Canada will be NPI (administrative role)
- NPI/Co-PIs must be drawn from 3+ countries and share leadership/responsibility for the proposed research
- NPI/Co-PIs must be eligible for \$ from at least 2 research funders
- People from other countries may also participate, incl. as Co-PIs (with \$ to support their involvement available)
- People can only participate as NPI/Co-PI on 1 application (but can be Co-Applicant/Collaborator on many)
- Interdisciplinary teams; including an expert in social sciences or humanities is strongly recommended
- No restrictions on size of team

# INTERNATIONAL JOINT INITIATIVE

## WHO

### MINIMUM-SIZED TEAM LOOKS LIKE...

- ✓ NPI/Co-PI from Canada\*
- ✓ Co-PI from Brazil, Germany, Norway, South Africa, Switzerland, U.K. or U.S.\*
- ✓ Co-PI from different eligible country\* or another country
  - ✓ member(s) of vulnerable group(s)
  - ✓ appropriate stakeholder(s)

*Larger teams could include additional Co-PI(s)  
and/or Co-applicant(s)/Collaborator(s)  
from eligible countries\* or other countries*

\*eligible to apply for funding

# INTERNATIONAL JOINT INITIATIVE

## WHAT

- Supports the design and implementation of co-produced adaptation and mitigation strategies for vulnerable groups to improve resilience to climate change
- Interdisciplinary, trans-sectoral research (incorporating expertise from across disciplines and across sectors)



# INTERNATIONAL JOINT INITIATIVE

## WHAT

- Research must respond to at least 2 of the IPCC-identified 8 representative key risks of climate change:
  1. Risks to low-lying coastal socio-ecological systems
  2. Risks to terrestrial & ocean ecosystems
  3. Risks associated with critical physical infrastructure, networks & services
  4. Risks to living standards
  5. Risks to human health
  6. Risks to food security
  7. Risks to water security
  8. Risks to peace and to human mobility

# INTERNATIONAL JOINT INITIATIVE

## WHAT

- EDI considerations must be integrated in the research design
- Applicants must also demonstrate their commitment to EDI in their research teams/research environment through:
  - Team composition and recruitment processes
  - Training and development opportunities
  - Inclusion

# INTERNATIONAL JOINT INITIATIVE

## WHERE

- Research can take place anywhere in the world
- Projects chosen for funding will reflect diversity in terms of geography and the locations of communities that will be impacted by the outcomes
- Team attendance at 2 knowledge mobilization events is encouraged and applicants should include expenses in their budgets (locations TBD)

# INTERNATIONAL JOINT INITIATIVE

## WHEN

- **Notice of Intent\* due:** May 2, 2023
- *Full Application RASF Submission deadline:* August 29, 2023
- **Full Application due:** September 12, 2023
- **Funding announced:** February 2024
- **Projects begin:** March 2024
  
- Projects should be designed to be completed within 3 years
- 1-year, no-cost extensions may be available

*\*NOI is not adjudicated*

# INTERNATIONAL JOINT INITIATIVE

## HOW

- All projects are required to partner with participating communities in the co-creation, implementation, and ownership of the research and outcomes
- Projects will include the development of strategies related to policy, communication, and community partnerships
- Teams must co-develop approaches to policy implementation and knowledge mobilization to ensure projects are transformative and impactful

# INTERNATIONAL JOINT INITIATIVE

## HOW

- Budgets are determined by which countries Co-PIs are eligible to request funding from since they have different amounts available
  - e.g. Canada – up to C\$1.5 million per project (incl. 25% indirect costs);  
United States – up to US\$700,000 per project
- Funding from each country can only be used according to the respective funding agency's guidelines regarding eligible expenses (see "[Annex](#)" for each Consortium Partner & NFRF/Canada's [Use of Funds](#))
- Funding from certain countries (Canada, UK, Germany) can support the participation of people from other countries not eligible for their own funding, provided expenses are eligible

# INTERNATIONAL JOINT INITIATIVE

## HOW

- **Notice of Intent** ([Guidelines available](#)):
  - Completed profiles for NPI/Co-Pis (minimum 3 countries represented)
  - Basic application information (e.g. title, keywords, disciplines)
  - Key climate change risks related to the research (minimum 2)
  - Countries from which you are seeking funding (minimum 2)
  - Summary of Proposal (2,500 characters max.)
  - List of Collaborators
  - Socio-economic objectives
  - Suggested reviewers and exclusions
  - Budget table (just the amount requested from each country)
  - If applying for funding from Germany, Norway, and/or South Africa, must also upload CVs of Co-PIs from those countries
- **Full Application** (Guidelines available by May 7)

# INTERNATIONAL JOINT INITIATIVE

## HOW

- Full applications will be evaluated by external reviewers & a multidisciplinary/multisectoral review panel
- Applications will be ranked and funded in order by each country until an application involves a country with no funding left, then will jump to next one(s) with funding available from all countries
- Merit Indicators (aka, Evaluation Matrices):
  - Fit to program (pass/fail)
  - EDI in the research environment (pass/fail)
  - Interdisciplinarity and trans-sectoral approach (pass/fail)
  - 20% - High Risk (e.g. Novelty of approach, Scientific rigour, Expertise)
  - 40% - High Reward (e.g. Impact, Reach, Likelihood, Benefits)
  - 20% Feasibility (e.g. Resources, Management, Value for Money, Workplan)



QUESTIONS?



NATIONAL SCIENCE FOUNDATION  
GLOBAL CENTERS INITIATIVE



# NSF GLOBAL CENTERS

## WHO

- Collaboration among research funders from Canada, Australia, the United Kingdom, and the United States
- Led by the United States' National Science Foundation (NSF)
- Canadian participation supported by NSERC and SSHRC
- U.S.-based researchers working together, potentially with researchers from Canada (and optionally Australia and/or the U.K.), alongside multi-sector stakeholders

# NSF GLOBAL CENTERS

## WHO

- NSF-eligible person from U.S. will be PI (director/leader role)
- Canadians can be Co-PIs; one Canadian will be the Applicant for the NSERC/SSHRC application (rest will be Co-Applicants)
- Only NSERC- or SSHRC-eligible Co-PIs and Co-Applicants may receive funding from SSHRC/NSERC
- People from other countries may also participate, incl. as Co-PIs, but should bring their own funding (U.K. & Australia have funds)
- People can only participate as PI or Co-PI on 1 application
- Partnerships may involve researchers who are in any field of the social sciences, humanities, natural sciences, or engineering
- No restrictions on size of team

# NSF GLOBAL CENTERS

## WHO

### MINIMUM-SIZED TEAM LOOKS LIKE...

- ✓ PI from United States\*
- ✓ Co-PIs from other institutions\* and/or other eligible countries\* or other countries

*Larger teams could include additional Co-PI(s) and/or Co-applicant(s)/Collaborator(s) from eligible countries\* or other countries and/or multi-sector stakeholders*

\*eligible to apply for funding  
(i.e. U.S. Canada, U.K., Australia)

# NSF GLOBAL CENTERS

## WHAT

- Supports the creation of international, interdisciplinary collaborative research centers (physical\* or virtual) to develop use-inspired research on climate change and clean energy
- **Use-inspired** = outcomes leading to foreseeable benefits to society; outcomes should help the assessment and/or mitigation of climate change-impacts on society, people, and communities, and/or the development of clean-energy solutions

\*NSF has confirmed that centers can be based in Canada, provided guidelines for use of awarded funds are followed

# NSF GLOBAL CENTERS

## WHAT

- **Track 1 – Global Center Implementation:** creates the first NSF Global Centers to carry out research around specific climate change and clean energy themes (4–5 years of funding; strong \$ support from Canada, UK, Australia )
- **Track 2 – Community-driven Global Center Design:** supports coordination research and education efforts to develop future NSF Global Centers around specific climate change and clean energy themes (2 years of funding; possible \$ support from Canada)

**Note:** main objectives of a Center must focus on any combination of disciplines supported by NSF

# NSF GLOBAL CENTERS

## WHAT

- Appropriate research themes *may* include (but are not limited to):
  - **Climate Change:** air quality issues; atmospheric, oceanic, or terrestrial changes; biodiversity protection; decarbonization; disaster resilience; economics, policy, social sciences for climate-resilience solutions; greenhouse gas mitigation; nature-based solutions; risk assessment; etc.
  - **Clean Energy:** battery innovation and recycling; clean energy storage; consumer acceptance and behaviour of Net Zero solutions; green hydrogen production; grid physical and economical resilience; low power computing solutions; offshore wind energy; negative emissions technologies; etc.

\*see sections D.1.a and D.1.b of [NSF Program Solicitation](#) for more suggestions



# NSF GLOBAL CENTERS

## WHAT

- Centers should have a unifying theme; should not just be a collection of random projects on climate change or clean energy
- Centers are expected to be driven by a bold vision for high-impact, use-inspired, basic research along with a strategy to integrate diverse perspectives from different stakeholder groups into the research endeavour
- Centers are expected to create and promote opportunities for students and early-career researchers while enhancing diversity, equity, inclusion, and accessibility (DEIA)

# NSF GLOBAL CENTERS

## WHERE

- The center may be completely virtual, or it may have a physical central location\*; however, the Global Centers Program will not fund the building of a new physical infrastructure.
- Research can take place anywhere in the world
- Budget requested from NSF must include costs of a minimum of 2 PI/Co-PIs to travel to NSF 3 times over the award period

\*NSF has confirmed that centers can be based in Canada, provided guidelines for use of awarded funds are followed

# NSF GLOBAL CENTERS

## WHEN

- *RASF Submission deadline: April 26, 2023*
- **Full Application due to NSF: May 10, 2023**
- **Canadian Application due to NSERC: May 10, 2023**
- **Funding announced: August-September 2023**
- **Projects begin: TBD**
  - UKRI says Track 1 must start between Oct 1, 2023 and Dec 31, 2023.
- Track 1 projects should be designed to be completed within 4-5 years; Track 2 projects should be completed within 2 years.
- 1-year, no-cost extensions may be available.

# NSF GLOBAL CENTERS

## HOW

- All Centers should utilize interdisciplinary and/or convergence approaches to address a societal challenge related to climate change and/or clean energy.
- Multi-sector stakeholders (e.g. academia, private sector, public sector, philanthropies, communities) should be engaged in the Center and there should be a vision and strategy for developing a community potentially able to continue the work beyond the funding period.
- The rationale for international partnership should be clear.

# NSF GLOBAL CENTERS

## HOW

- Budgets are determined by which countries PI and Co-PIs are eligible to request funding from and whether Track 1 or 2:
  - U.S. – US \$28 million available:
    - Track 1 can request up to \$5 million/project
    - Track 2 can request up to \$250,000/project
  - Canada – CA \$20 million available:
    - Track 1 can request up to \$750,000/year (up to \$3.75 million/project)
    - Track 2 can request up to \$100,000/year (up to \$200,000/project)
  - United Kingdom - £22,500,000 available:
    - Maximum award: £6,250,000/project (may only be funding Track 1 projects)
  - Australia – AUD \$35 million
    - Anticipating AUD \$3 to \$7 million per project (possibly only Track 1 projects)

# NSF GLOBAL CENTERS

## HOW

- Funding from each country can only be used according to their respective funding agency's guidelines (Canada – see [TAFAG](#))
- Researchers from other countries may also participate, including as Co-PIs, and should have own funding to support that (but may be possible to support with NSF funding or funding from other countries)

# NSF GLOBAL CENTERS

## HOW

- **NSF Full Application** – submitted by U.S. PI via Grants.gov or Research.gov ([Guidelines available](#)):
  - Cover Sheet
  - Project Summary (1 page)
  - Project Description (20 pages max.)
  - Results from previous NSF support (2 pages max.)
  - References cited
  - Biographical sketches – NSF format (U.S. researchers)
  - Current & Pending Support
  - Facilities, Equipment & Other Resources (in U.S. and abroad)
  - **Supplementary Documentation:** Letters of Collaboration (Track 1 only), Data Management Plan, Postdoctoral Researcher & Student Mentoring Plans, Biosketches – NSF format for non-U.S. researchers (Track 1 only), Safe & Inclusive Work Environments Plan (2 pages max.), Project Management Plan (3 pages max.), Detailed budget for funds requested from foreign funding agencies
  - **Budget Justification**

# NSF GLOBAL CENTERS

## HOW

- **Canadian Full Application** – submitted to NSERC via [NSERC's online system](#) by Canadian Applicant representing project team ([Guidelines available](#)):
  - **Form 101 – Application for a grant**
  - **Proposal document** (includes only the title of proposal, name of US PI, and, if applicable, the names and affiliations of collaborators and/or partners on the Canadian team from the private sector)
  - **Impact Assessment Form** (if applicable)
  - **Budget & Budget Justification** (in Canadian dollars, with justification for the funds you are requesting from NSERC or SSHRC)
  - **Canadian Common CVs** (for Canadian Applicant and any Canadian Co-PIs/Co-Applicants)

Note: Application requirements are same for Track 1 & 2

- **U.K. / Australia Full Applications** – submitted to their funders




# NSF GLOBAL CENTERS

## HOW

- NSF applications reviewed by NSF Program Officer and 3–10 people outside NSF serving as ad hoc reviewers, review panelists or both (experts in field) – NSERC/SSHRC & UKRI can suggest relevant reviewers for Track 1 reviews only
- **Merit Review Criteria:**
  - Intellectual Merit
  - Broader Impacts
  - Interdisciplinarity
  - Use-inspired nature
  - International partnership
  - Roles of stakeholders
  - Fostering DEIA
  - Vision for growth
  - Extent to which proposed activities align with partner-agency priority topics (Track 1 only)

# NSF GLOBAL CENTERS

## HOW

- NSF, NSERC, SSHRC, and if applicable, UKRI and/or CSIRO, will determine outcomes for Track 1 proposals – likely need support from all involved agencies to get funded.
  - NSERC/SSHRC will select Track 1 proposals to support and amounts to allocate, taking into consideration NSF merit review.
  - NSERC/SSHRC support for Track 2 proposals is subject to availability of funds, and funding decisions will be made by NSERC/SSHRC after NSF selects meritorious proposals.
  - NSERC/SSHRC will provide separate notifications of awards to Canadian-based researchers on successful proposals.
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QUESTIONS?



# COMPARISON OF OPPORTUNITIES



# COMPARISON OF OPPORTUNITIES

	INTERNATIONAL JOINT INITIATIVE	NSF GLOBAL CENTRES
<b>Minimum countries represented by team</b>	3	1 (U.S.-only teams are allowed)
<b>Contributing countries (\$)</b>	Canada, U.S., U.K., Brazil, Germany, Norway, South Africa, Switzerland	Canada, U.S., U.K., Australia
<b>Grants can support co-PIs from non-contributing countries</b>	Yes (funds from Canada, Germany, and the U.K. can be used for this)	Maybe? (NSF would need to see as only way forward; need to check if funds from Canada/UK/Australia can be used for this purpose)
<b>Estimated total budget available</b>	at least CAD \$4.8 million per project (not counting funding from Germany)	Track 1: up to CAD \$27.18 million per Centre Track 2: at least CAD \$539,260 per Centre
<b>Funding available for Canadians (max.)</b>	\$1.5 million per project	Track 1: \$3.75 million per Centre Track 2: \$200,000 per Centre
<b>Estimated projects that will be funded</b>	Up to 40 by NFRF but depends on which countries are part of proposal and size of budget requests	Track 1: 5-7 by NSF; up to 7 by NSERC/SSHRC Track 2: 10-15 by NSF; 0-15 by NSERC/SSHRC

# COMPARISON OF OPPORTUNITIES

	INTERNATIONAL JOINT INITIATIVE	NSF GLOBAL CENTRES
<b>Research focus</b>	Must directly address at least 2 of the representative key risks of climate change identified by the IPCC	Use-inspired research on themes related to Climate Change and/or Clean Energy
<b>Interdisciplinarity</b>	Proposed research & team must be interdisciplinary (involving at least 2 different disciplines)	Science & engineering research (aka, <u>disciplines funded by NSF</u> ) should be at the core but can involve social sciences & humanities researchers
<b>Trans-/Multi-sectoral expectations</b>	Team must integrate members of vulnerable groups and appropriate non-academic stakeholders	Probably a good idea for teams to integrate appropriate non-academic stakeholders but not explicitly required
<b>Application process</b>	Submit NOI (non-adjudicated) then Full Application	Submit Full Application to NSF (US PI) Submit Full Application to NSERC (Canadians)
<b>Deadlines</b>	NOI by May 2, 2023 Full Application by Sept. 12, 2023	Full Application by May 10, 2023

# RESOURCES



# RESOURCES

## INTERNATIONAL JOINT INITIATIVE

- [Funding opportunity description](#)
- [Application portal \(Convergence\)](#)
  
- [Evaluation Matrices](#)
- [Review Process](#)
  
- [Best Practices in Equity, Diversity and Inclusion in Research](#)
  
- Questions? [NFRF-FNFR@chairs-chaire.gc.ca](mailto:NFRF-FNFR@chairs-chaire.gc.ca)



# RESOURCES

## NSF GLOBAL CENTERS

- [NSF program solicitation](#) (includes review process)
- [UKRI call](#) & [CSIRO call](#)
- [NSERC/SSHRC funding opportunity description](#)
- [NSERC/SSHRC application portal](#) (NSERC online system)

## NSERC/SSHRC joint information sessions:

- English: [Thu, March 9, 2023, 8 am \(PST\)](#) (Password: GRC2023)
- French: [Thu, March 9, 2023, 11 am \(PST\)](#) (Password: GRC2023)
- **Questions? NSF:** [globalcenters@nsf.gov](mailto:globalcenters@nsf.gov) or [NSF office hours](#)  
**NSERC/SSHRC:** [RP-Initiatives-PR@nserc-crsng.gc.ca](mailto:RP-Initiatives-PR@nserc-crsng.gc.ca)

FINAL QUESTIONS?

