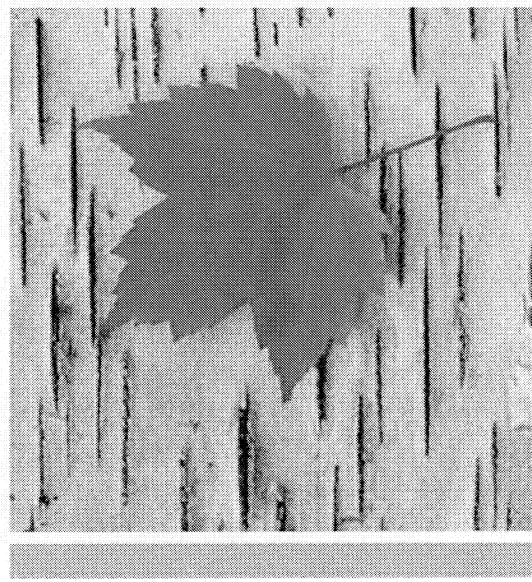




Public Safety  
Canada

Sécurité publique  
Canada

BUILDING A SAFE AND RESILIENT CANADA



# Research Security Update to DMNS

DATE: May 15, 2023  
UNCLASSIFIED // FOUO

Canada

# Objectives

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- To provide an overview of the research security policy and operational environment in Canada.
- To seek DM endorsement of the way forward on strengthening our research security posture.

# Research and the Canadian Economy

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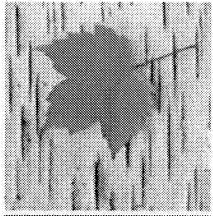
- Canadian and allied NS communities are seeing a noticeable rise in threats posed by espionage and theft of sensitive and cutting-edge research and intellectual property.
- It is estimated that trade secret and research theft costs an average of 1-3% of GDP equating to \$49 billion in losses each year.
- The research enterprise in Canada is a \$38 billion sector that employs more than 300,000 people across the country.
- Cutting-edge research in Canada is key to Canada's long-term economic prosperity, resilience, post-pandemic recovery, and maintenance of a strong middle-class.



# Overall Threat Landscape

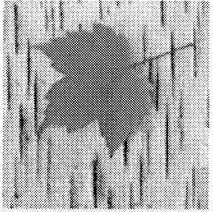
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- Threats to cutting-edge research in Canada can come from a variety of vectors, however, most of the threats originate from certain foreign countries that seek to acquire Canadian sensitive research to further their own military, security, or economic objectives.
- State actors use a variety of tactics to acquire sensitive research data and intellectual property including:
  - Partnering with academics in Canada on research projects;
  - Using a vast array of open-source collectors, including students, to export knowledge back to the home country;
  - Exploiting weaknesses in IT infrastructure to steal vital research data; and
  - Utilizing traditional espionage methods.



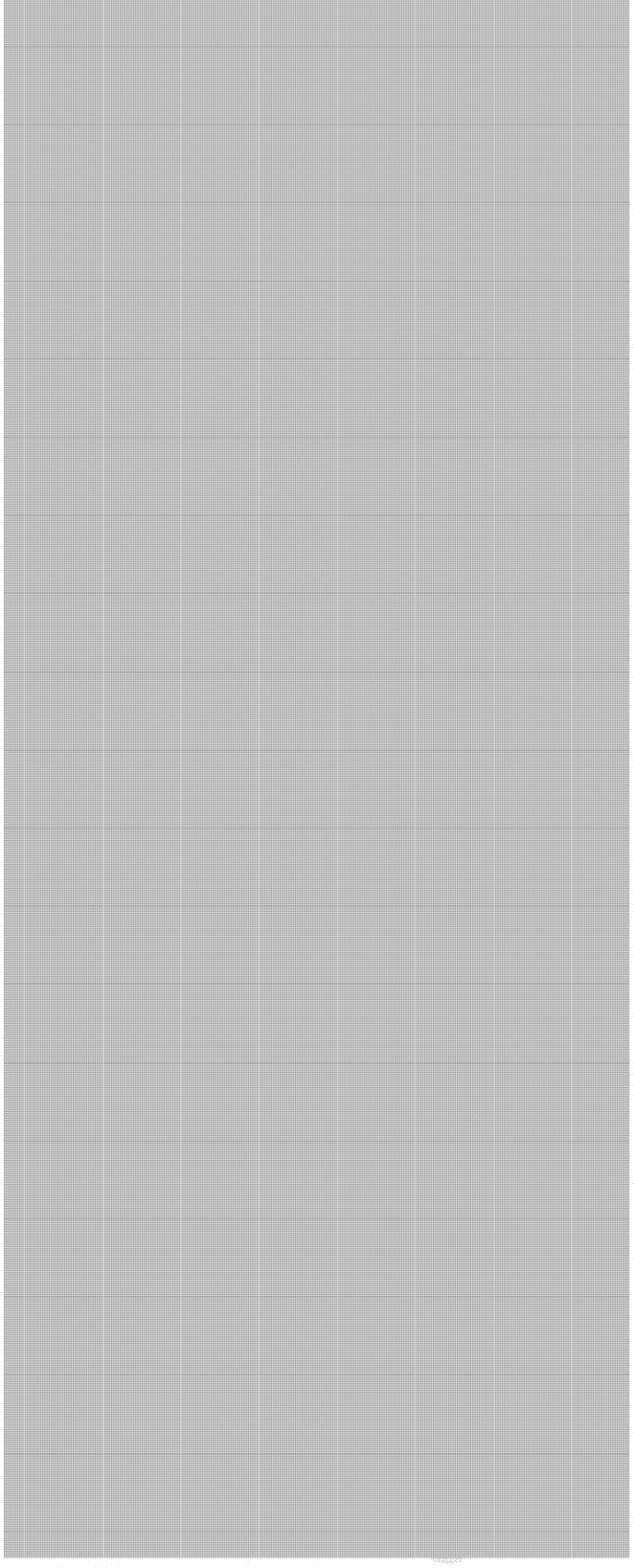


# Canada's Research Enterprise – Key Metrics



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- ISED's science portfolio supports the broader science ecosystem, providing roughly \$5.433 billion in funding:
  - Over 33,000 federally supported researchers and 40,000 trainees
  - Over 3,245 non-academic collaborators



# Research Security Developments in Canada

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- In July 2021, the Government announced the National Security Guidelines for Research Partnerships (Guidelines) requiring applicants seeking Federal funding to complete a Risk Assessment Form.
- In April 2022, the Federal Budget allotted several departments and agencies \$159.6 million over 5 years and \$33.4 million ongoing to improve Canada's research security posture.
- As part of Budget 2022, PS was allotted \$12.6 million over 5 years and \$2.9 million ongoing to establish the Research Security Centre.
- ISED was also allotted \$125 million over five years and \$25 million ongoing through the Research Support Fund to build capacity within universities to mitigate potential risks to research security.
- More recently, on February 14, 2023, a Ministerial statement was issued to make grant applications ineligible for funding if the researchers are working in sensitive research areas and have affiliations with a university, research institute, or laboratory that is connected to military, national defence, or state security entities of foreign states who pose a risk to Canada's national security.



# Research Security – Ongoing Activities

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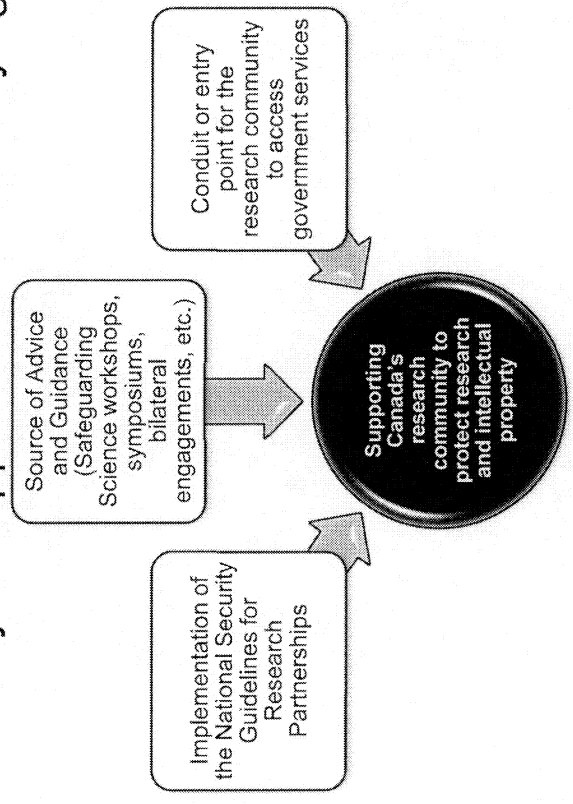
- **Safeguarding Science Initiative** is a workshop designed to raise awareness of research security issues which has been delivered to over 50 universities and research institutions since 2016.
- **Safeguarding your Research Portal** is a central website for resources.
- **Government of Canada/Universities Working Group** is a forum to engage university administrations' senior leaders.
- **Targeted outreach** by CSIS to raise awareness of the threat (e.g. biopharmaceutical sector).
- **International Engagement:**
  - Discussion topic in the upcoming June 2023 Five Country Ministerial.
  - [REDACTED]
  - G7 Security and Integrity of the Global Research Ecosystem Working Group
  - GAC-led Multi-country dialogue on Research Integrity and Security
- **Establishing a governance framework** on economic security and a countering foreign interference strategy.



# Research Security Centre

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- Budget 2022, supported the implementation of a GoC Research Security Centre within PS which is responsible for providing guidance and assistance to universities on how to protect their research – this activity is conducted through the Centre’s six regional advisors, located across the country.
- Regional advisors have started to engage with university officials and P/T partners in the Prairies and Ontario.
- The academic community has been strongly supportive of having a first point of contact on research security to support them in identifying and managing risks.





# National Security Guidelines for Research Partnerships

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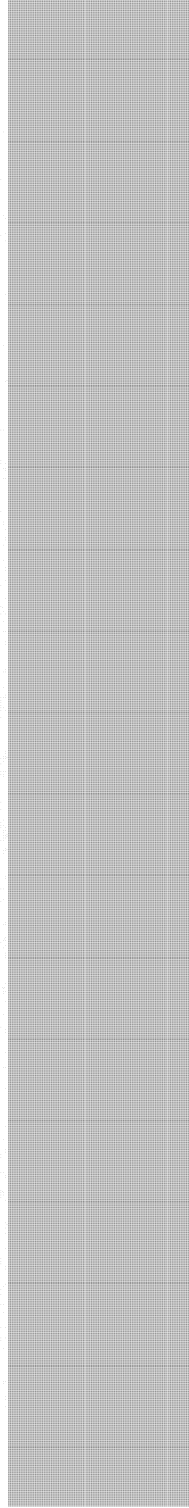
- A key function of the Research Security Centre is leading the delivery of the NS Guidelines, integrating national security risk assessment into the evaluation and funding of research partnerships.
- In 2022, as part of a pilot phase, the Guidelines were applied as a requirement of NSERC's Alliance Grants program for applications with a private sector partner:
  - The implementation of the Guidelines is an interdepartmental process involving ISED, PS, GAC, CSIS, CSE, granting agencies, and academia.
  - During the pilot, applicants were required to complete a risk assessment form to identify risks and mitigation measures.
  - PS with national security partners (CSIS, CSE) conducted detailed assessments on high-risk projects based on referrals from NSERC.
  - Research projects with unacceptable risks and/or where risks could not be appropriately mitigated were not recommended for funding.



# Guidelines Pilot Results

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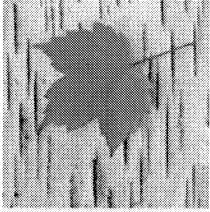
- The Guidelines were piloted with the NSERC Alliance Grant applications that involve private sector partners (completed in January 2023).
- Between July 2021 and July 2022, NSERC received 1158 Alliance grant applications that required a risk assessment form.
  - Of those applications, approximately 4 percent were referred to the national security community for review.



- Researchers suggested they would like more help in identifying risks in their research projects/partnerships as well as more guidance on how to mitigate risk.
- A post-implementation report is underway to inform implementation post-pilot.

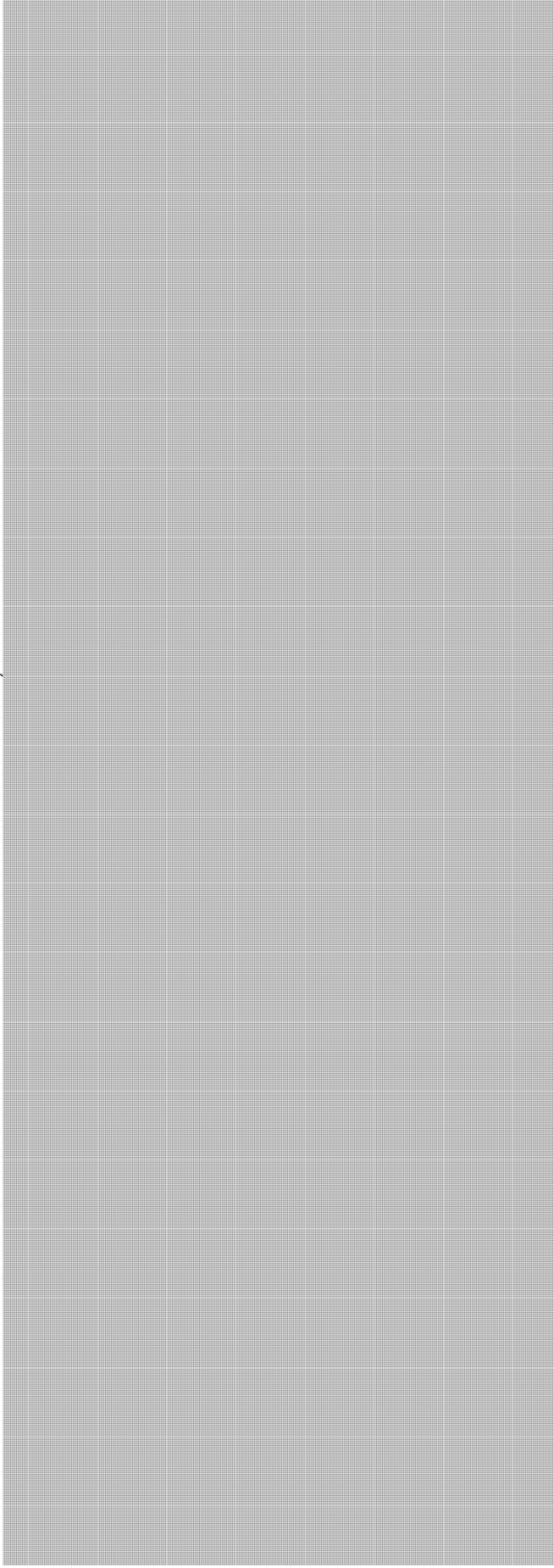


# February 14 Ministerial Statement Implementation



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*“Grant applications that involve conducting research in a sensitive research area will not be funded if any of the researchers working on the project are affiliated with a university, research institute or laboratory connected to military, national defence or state security entities of foreign state actors that pose a risk to our national security.”*

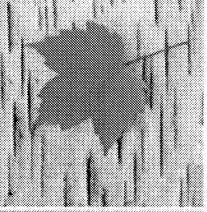


# Components of the Ministerial Statement

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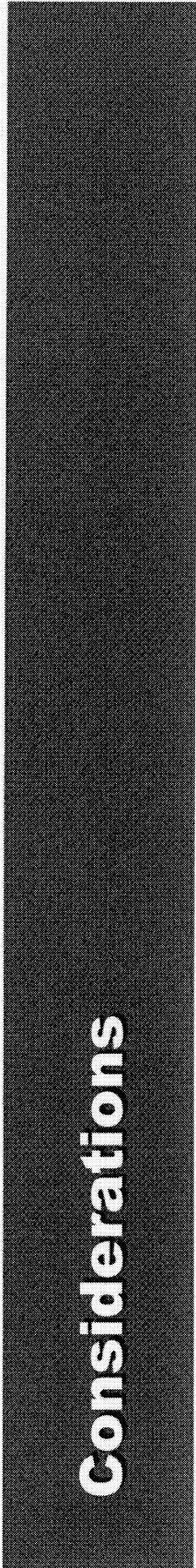
- Sensitive Research Area
  - Is based on PS' first draft of the Sensitive Technologies List (STL) which includes 11 areas that are divided into subcategories.
- Affiliation of Researchers
  - The definition includes any organizations at which an individual is employed, appointed, conducts research, or receives any funding or in-kind support.
- Entities List
  - Research labs and academic institutions will be listed based on a set of criteria being developed by NS partners.
- Attestation and verification
  - When submitting a grant application in a sensitive research area, all applicants will be required to submit an attestation of affiliation. Validation to be performed by granting agencies and NS partners.

# Guiding Principles for the Implementation of the Statement

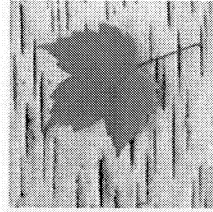


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- The work on the Statement is guided by the following proposed principles:
  - **Risk Targeted:** based on evidence and highest risk.
  - **Science Appropriate:** allows research and research funding to continue; balances open science and security; maintains service standards.
  - **Transparent:** info needs to be published and publicly defensible.
  - **Targeted:** to research; broader work could be considered by the economic security team.
  - Reflect an **anti-racism lens:** must promote inclusive environments and target only threats, not groups of people.
  - Reflect a **foreign policy lens.**
  - Developed in **consultation with the research community.**
  - Reflects **national security concerns.**



# Considerations



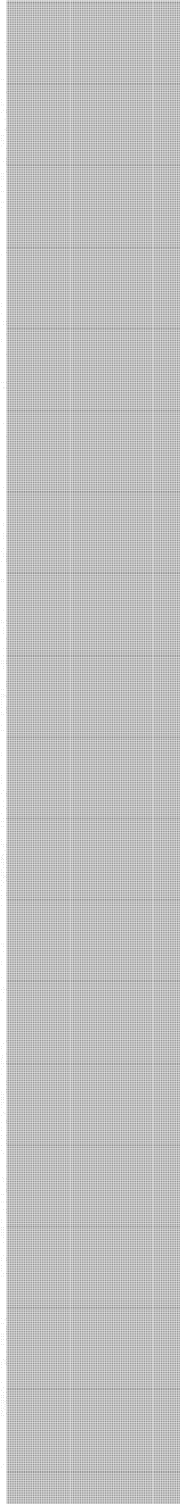
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- Researchers need detailed guidance on the implementation of the Statement that is proportionate and does not inappropriately limit academic freedom.
- The enhanced security posture could be seen as the GoC moving away from adopting a country- and company-agnostic approach.
- Providing a list of entities will have an impact on Canada's bilateral relations.
- Strong concern about a chill within the research community (e.g. ethnic communities may be targeted). Well-considered messaging will be needed to mitigate this risk.
- Intramural science is strongly encouraged to conform to the statement as its application to extramural science is precedent-setting.
- It may be challenging to operationalize the Statement within the resources already allocated in Budget 2022. Maintenance of funding agencies' service standards remains an important issue.
- Guidelines will force a dilemma on some researchers between direct funding from foreign actors or from the GoC. Stakeholders have been requesting more federal funding for sensitive research areas to mitigate this issue.

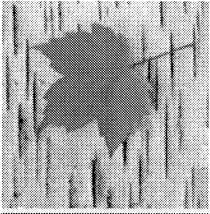


## Next Steps

- Implementation of the Statement will be phased in starting in summer 2023. Signals check on implementation details with MIN ISED took place in early May, pending for MIN PS and HC.



- Research security policy will need to align with the planned work on a broader countering foreign interference strategy.
- Socialization of the statement policies with key stakeholders will continue throughout May, along with the development of clear communications materials to explain how the new policy complements other ongoing research security efforts.
- The Statement will be implemented in parallel with the application of the Guidelines to additional federal research funding programs.



# Annex A – Research Security Efforts Across the Five Eyes

## International Comparisons on Research Security Practices and Strategies FIVE EYES CONTEXT

Updated May 2023

### Comparing Research Security Policies

- Canada's National Security Guidelines for Research Partnerships** integrates national security considerations into the development, evaluation, and funding of research partnerships.
- National Security Presidential Memorandum 33 (NSPM-33)** looks to safeguard federally funded research and aims to provide clear and effective rules for research organizations and agencies implementing research security measures.
- UK government released the **Trusted Research Guidance** which is designed to help academics and universities understand the risks and protect their research by managing international partnerships, cybersecurity, enhancing due diligence, understanding legal frameworks, etc.
- New Zealand published the **Trusted Research: Guidance for Researchers and Institutions** which focuses on awareness and due-diligence to identify and mitigate potential security risks.
- The University Foreign Interference Taskforce (UFIT) published **Guidelines to Counter Foreign Interference in the Australian University Sector** that are intended to split the foundational elements essential for building awareness and resilience to foreign interference within a university.

### Comparing Research Security Practices and Initiatives

Initiative or Program	CAN	USA	UK	NZ	AUS	Legend
Research Security Centre of Expertise	Active	Planned	Active	No	Active	Active
Research Security Guidelines*	Active	Active	Active	Active	Active	Active
Research Security Online Portal	Active	Active	Active	Active	Active	Active
Mandatory Research Security Federal Funding Requirements	Active	Partially Implemented	Active	Active	Active	Active
Entities List**	Planned	Active	No	No	No	No
Disclosure of Foreign Funding Conflict of Interest	Planned	Active	Active	No	Active	Active
Coordination & Dialogue with Academic Sector	Active	Active	Active	Planned	Active	Active

\*Scope of Research Security Guidelines differ by country. Canada has to date focused on research partnerships, whereas other countries have Guidelines which focus on all research projects (including the researcher) as a whole.

\*\*Scope of Entities Lists differ by country. Canada's is specific to universities, research institutions, and laboratories.