

An aerial photograph of the Dalhousie University campus. The image shows a mix of modern and traditional architecture, including a large green soccer field, several multi-story buildings, and a central clock tower. A large yellow rounded rectangle is overlaid on the left side of the image, containing the main title. The overall scene is captured from a high angle, showing the layout of the university grounds.

Research and Knowledge Security

Office of the Vice President Research and Innovation





What does Research and Knowledge Security cover?

- 1) The undesirable transfer of knowledge, including the transfer of knowledge and technologies that may pose a threat to national security
- 2) Interference, including the (covert) influencing of academic education and research by or from a third party, potentially threatening the academic freedom and security of students and researchers
- 3) Ethics and integrity issues that may arise, for example, when collaborating with researchers in countries where the government fails to respect human rights, or does so insufficiently



Research Security: Brief Timeline

2018 – Establishment of the Government of Canada – Universities Working Group – stated principle of “*as secure as necessary; as open as possible*”

September 2020 – Launch of the Government of Canada’s *Safeguarding Your Research* website

July 2021 – Government of Canada releases its *National Security Guidelines for Research Partnerships*

January 2024 – Government of Canada releases its *Policy on Sensitive Research and Affiliations of Concern*, the *Sensitive Technology Research Areas* list, and the *Named Research Organizations* list

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.

Hon. Francois-Philippe Champagne

February 14, 2023



Federal Policy- Elements to consider

1. Is the research sensitive?





Sensitive Technology Research Areas (STRA)

- 1. Advanced Digital Infrastructure Technology**
- 2. Advanced Energy Technology**
- 3. Advanced Materials and Manufacturing**
- 4. Advanced Sensing and Surveillance**
- 5. Advanced Weapons**
- 6. Aerospace, Space and Satellite Technology**
- 7. Artificial Intelligence and Big Data Technology**
- 8. Human-Machine Integration**
- 9. Life Science Technology**
- 10. Quantum Science and Technology**
- 11. Robotics and Autonomous Systems**



Sensitive Technology Research Areas (STRA)

- **Advanced Sensing and Surveillance**
 - *Network of sensors and autonomous / uncrewed underwater vehicles that use acoustic waves to communicate with each other, or with underwater sinks that collect and transmit data from deep ocean sensors, to enable remote sensing, surveillance and ocean exploration, observation and monitoring.*





Federal Policy- Elements to consider

1. Is the research sensitive?
2. Is the research advancing the technology?





Sensitive Technology Research Areas (STRA)

- **Advanced Sensing and Surveillance**

- *Network of sensors and autonomous / uncrewed underwater vehicles that use acoustic waves to communicate with each other, or with underwater sinks that collect and transmit data from deep ocean sensors, to enable remote sensing, surveillance and ocean exploration, observation and monitoring.*

- Research **using** the OTN would not be considered a Sensitive Technology Research Area
- Research **meant to enhance the capabilities** used in the OTN would be considered a Sensitive Technology Research Area





Federal Policy- Elements to consider

1. Is the research sensitive?
2. Is the research advancing the technology?
3. What are the affiliations of the research participants?





Named Research Organizations (NRO)

- **Currently consists of research entities located in the People's Republic of China (85), Russia (6), and Iran (12)**
- **Any individual affiliated with a Named Research Organization would be barred from working on federally funded STRA projects**
 - Individuals are considered affiliated to any organization at which they are employed, appointed, or conduct research
 - Past affiliations are not considered
- **Federal funding is still available to projects involving NROs as long as they are not Sensitive Technology Research Areas**



Sensitive Technology Research Areas (STRA)

Can work with Named Research Organizations
and receive federal funding

- **Advanced Sensing and Surveillance**

- *Network of sensors and autonomous / uncrewed underwater vehicles that use acoustic waves to communicate with each other, or with underwater sinks that collect and transmit data from deep ocean sensors, to enable remote sensing, surveillance and ocean exploration, observation and monitoring.*

- Research **using** the OTN would not be considered a Sensitive Technology Research Area

- Research **meant to enhance the capabilities of the sensors** used in the OTN would be considered a Sensitive Technology Research Area



Cannot work with Named
Research Organizations
and receive federal
funding



Federal Policy- Elements to consider

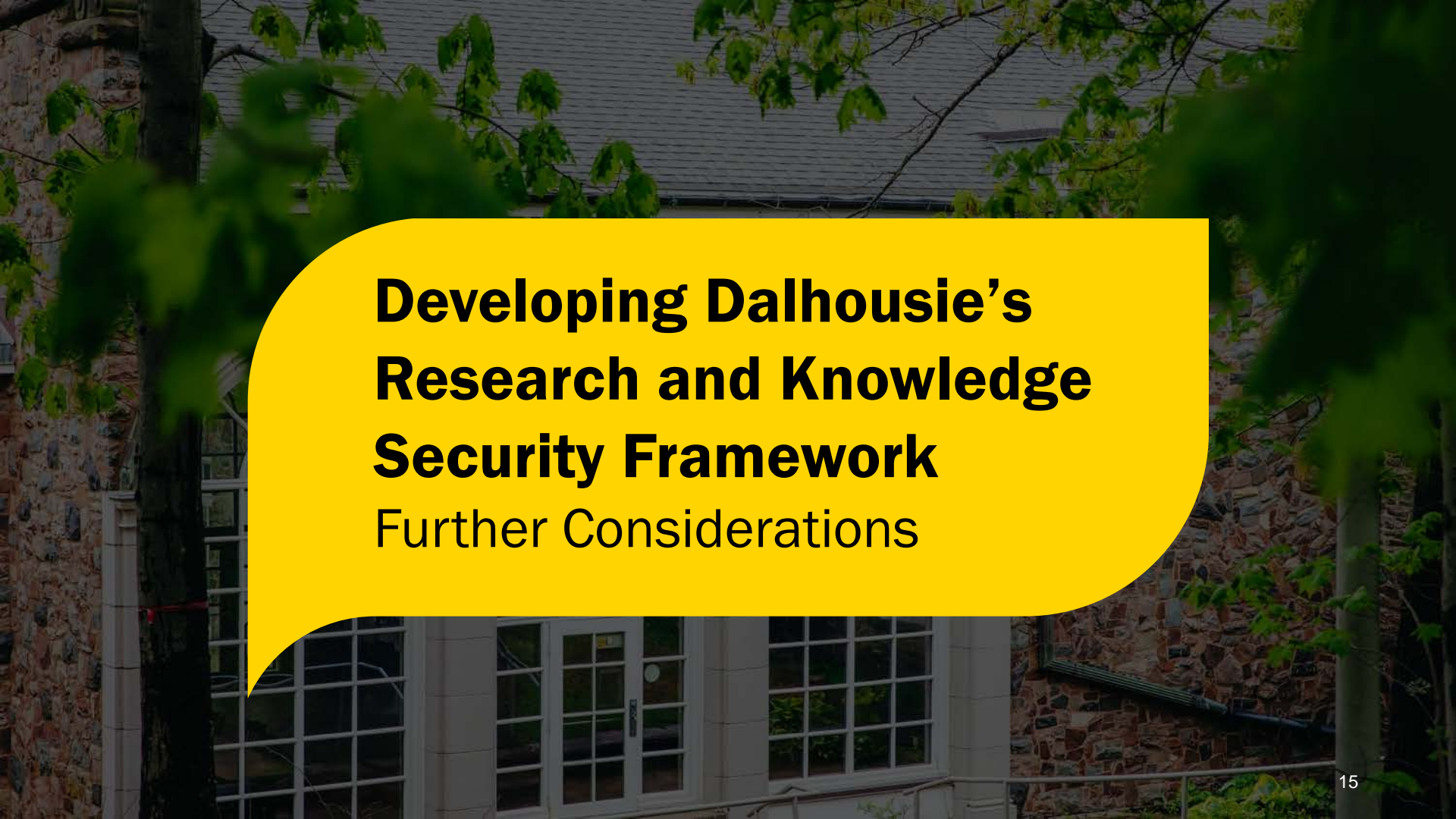
1. Is the research sensitive?
2. Is the research advancing the technology?
3. What are the affiliations of the research participants?
4. Are private sector partners involved?





National Security Guidelines for Research Partnerships

- **Federally funded projects that involve a private sector partner must adhere to the National Security Guidelines for Research Partnerships**
 - This applies whether the project is a Sensitive Technology Research Area or not
- **Risk Assessment Forms must be completed by the Primary Investigator and accepted by the funder**

The background of the slide is a photograph of a stone building with a large window. The building is partially obscured by green trees in the foreground. A yellow speech bubble shape is overlaid on the image, containing the text.

**Developing Dalhousie's
Research and Knowledge
Security Framework**
Further Considerations



Assets Subject to Special Control

Protection of **Assets Subject to Special Control (ASSC)** is a UK Ministry of Defence concept that seeks to:

- a) Identify items (including data) that are deemed sensitive by various regulatory regimes;
- b) Identify handling and access restrictions on these items; and
- c) Consolidate the requirements in a comprehensive, consistent, and easy-to-understand manner

- Items enumerated on the ***Export Control List***
- Items enumerated on the ***Schedule to the Defence Production Act*** (Controlled Goods)
- Items identified by a foreign regulatory regime as being sensitive (i.e. Controlled Unclassified Information, ITAR, foreign export controls)





Further Considerations

1. How will Dalhousie handle collaborations with Named Research Organizations on non-Sensitive Technology Research Areas while respecting academic freedoms? Who will accept the risk?
2. Will other funding agencies follow suit and implement similar policies?
3. How will the policies of other governments impact Dalhousie's security risk management framework?

Research Security Framework

Goals

- Minimize roadblocks to funding
- Assess and mitigate risk in a transparent manner without unduly adding to the administrative burden of the Primary Investigator
- Create an environment that ensures Primary Investigator accountability over the confidentiality, integrity, and availability of research data



Interim steps: When should you contact Research Security outside of the federal guidelines?

michael.sullivan@dal.ca

You should contact Research Security if:

- 1) Your funding source is a military, a military research institute, or a defence industry contractor (Canadian or international)
- 2) You are proposing to share information which may be subject to export controls with an international partner
- 3) You are proposing to conduct research with an unknown / untrusted / unvetted partner
- 4) You have been solicited by an outside organization with a lucrative funding proposal with few strings attached
- 5) Proposed requirements placed on your research seem out of place (shadow laboratory / shadow database)
- 6) Your proposed research necessitates international travel



THANK YOU