PREAMBLE

The Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST) is the only scientific organization of its kind combining the functions of research centre, granting agency, laboratories, and liaison and transfer centre. It therefore has a broad range of levers that it can use independently or synergistically to achieve its mission in full.

Generative artificial intelligence (generative AI, or GenAI for short), which has become widely available in recent years, presents numerous opportunities in various fields, particularly that of research. It has great potential to accelerate scientific discovery and improve the efficiency and pace of research and evaluation processes. Positive examples of the use of these tools include assistance for non-native speakers in producing texts in various languages, the quick production of summaries of texts coming from different sources in very large document collections, as well as assistance in computer coding and in the automatic extraction and contextualization of a large body of knowledge.

However, this technology also poses certain risks. Some pertain to the technical limitations of the GenAI tool chosen or to its use (intentional or not) in a manner that jeopardizes good research practices. Other risks may arise from the uncertainty surrounding the use of confidential data to train GenAI systems, the proprietary nature of certain tools (i.e. lack of openness, service access fees, input data usage, etc.) and the concentration of ownership. Consequently, the impact of GenAI on various aspects of the scientific process calls for reflection and guidance. This policy thus provides specific guidance for the use of GenAI in the IRSST's scientific activities and complements the Institute's other policies, in particular:

- *Politique de l'IRSST sur l'Intégrité (available in French only)*
- *Code d'éthique et de déontologie des membres du conseil scientifique de l'IRSST (available in French only)*
- *Politique d'édition des publications (available in French only)*
- *Politique sur la protection des renseignements personnels et sur l'accès aux documents (available in French only)*
- *Politique sur la propriété intellectuelle (available in French only)*
- *Politique d'éthique de la recherche avec des êtres humains (available in French only)*
- *The IRSST's Scientific Policy*
- *Politique sur la divulgation sans risque d'actes répréhensibles (available in French only)*

This policy on the use of GenAI in scientific activities reflects a Canadian and international trend, and

is based largely on the guidelines issued by the European Union (European Commission, 2024) and those produced by the Government of Canada (Innovation, Science and Economic Development Canada, 2025).

1 GENERAL OBJECTIVE

This policy (hereafter “the Policy”) is designed to provide guidance on the use of GenAI in all scientific activities carried out by the IRSST community.

2 SCOPE OF THE POLICY

The Policy applies to everyone whose scientific activities are conducted or funded by the IRSST and to everyone who applies for IRSST funding.

It also applies to individuals recruited by the IRSST to evaluate scholarship, fellowship or grant applications and the scientific calibre of documents published by the IRSST.

The Policy does **not** cover the use of other forms of AI than GenAI (such as machine learning or deep learning) that have been used in research for a number of years now, or the use of AI in security or prevention systems.

3 DEFINITIONS

- **Scientific activity**: generic term covering all activities that contribute to the advancement or mobilization of scientific or technical knowledge in OHS (research project or program; laboratory, expertise or knowledge mobilization activity).
- **IRSST community**: includes everyone directly or indirectly involved in developing, evaluating or carrying out scientific activities conducted or funded by the IRSST, and to the conduct of laboratory services.
- **Generative artificial intelligence (GenAI)**: type of artificial intelligence that generates new content by modelling the characteristics of data drawn from large datasets that were fed into the model. While traditional AI systems can recognize patterns or classify existing content, GenAI can create new content in many forms, such as text, image, audio file or software

code[1]. For the purpose of this policy, online GenAI tools are public-facing tools such as ChatGPT, Copilot, DeepSeek and Gemini.

- **Scientist**: someone who is involved in a funding application or who participates in carrying out a scientific activity conducted or funded by the IRSST, whether they are employed by the IRSST or affiliated with an external institution:
    - researcher;
    - research or laboratory professional;
    - research assistant;
    - research officer;
    - knowledge mobilization advisor;
    - scientific monitoring and information advisor;
    - technician;
    - trainee, student;
    - or any other person regarded as such.
- **Intentional use:** the use of GenAI is intentional when it is used directly for a specific purpose or goal (Resnik and Hosseini, 2025).
- **Substantial use**: the use of GenAI is considered substantial when it "(1) "produces evidence, analysis, or discussion that supports or elaborates on the conclusions/findings of a study," or (2) directly affects the content of the research/publication" (Resnik and Hosseini, 2025). This includes activities such as carrying out a literature review, identifying gaps in a body of knowledge, formulating research aims, developing hypotheses, interpreting and analyzing data, developing computer codes or generating images. Using GenAI as a writing or translation aid is not regarded as substantial use.

4 GUIDING PRINCIPLES

The guiding principles underlying this policy are as follows:

- **Reliability**: verification and reproducibility of information produced by GenAI to ensure the quality of the scientific work performed. One must also be alert to possible issues of discrimination related to potential biases of the GenAI tools used.

[1] https://www.cyber.gc.ca/fr/orientation/lintelligence-artificielle-generative-itsap00041

- **Honesty and transparency**: disclosure of the use of GenAI in the appropriate manner.
- **Respect:** regard for colleagues, research participants, research subjects, society and the environment. This implies respect for privacy, confidentiality of data and personal information, and intellectual property rights, as well as proper citation of sources.
- **Accountability:** The scientist is accountable for all information produced using GenAI.

These guiding principles apply at all stages of scientific activities, from the originating idea to the publication of findings.

5 USE OF GENERATIVE AI IN SCIENTIFIC ACTIVITIES

Scientists who submit a funding application to the IRSST, or whose scientific activities are conducted or funded by the IRSST, are:

- Accountable for the integrity of the content generated or assisted by GenAI tools.
    - Scientists must maintain a critical approach to using results produced by GenAI and be aware of these tools' limitations, such as bias, hallucinations[2] and inaccuracies;
    - GenAI systems are neither authors nor co-authors. Authorship implies action and responsibility, which therefore lies with human scientists. These individuals must not use, in their scientific process, material entirely fabricated by GenAI, which can, for example, falsify, alter or manipulate original research data (serving as inputs).
- Use GenAI in a transparent manner.
    - To ensure transparency, scientists must mention the GenAI tool(s) they have used substantially in their activity. Reference to the tool should include the name, version, date of use, etc., as well as how it was used and how it affected the conduct of the activity. If applicable, scientists must provide the prompts used and outputs obtained, in accordance with the principles of open science (UNESCO, 2021);
    - Scientists must take into account the stochastic (random) nature of GenAI tools, i.e. their tendency to produce different results from the same data. They must therefore aim for reproducibility and robustness in their results and conclusions. They must

[2] (Free translation): Inaccurate, inappropriate or fictitious content generated by generative artificial intelligence and presented in a factual manner as if the information was authentic or responded to the original request. Source: https://vitrinelinguistique.oqlf.gouv.qc.ca/fiche-gdt/fiche/26571221/hallucination-dia

disclose or discuss the limitations of the GenAI tools used, including possible biases in the content generated, as well as the mitigation measures applied.

- Pay particular attention to issues related to privacy, personal information, confidentiality and intellectual property rights when sharing sensitive or protected information with GenAI tools.
    - Scientists must always be aware that data generated or uploaded (text, data, prompts, images, etc.) could be used for other than the intended purpose, such as to train GenAI models. They must therefore protect their unpublished or sensitive work (or that of other individuals) by taking care not to upload them to an online GenAI system unless they are certain that the data will not be reused (for example, to train future language models) or reused in a way that cannot be traced or verified;
    - To guarantee compliance with laws and regulations pertaining to data protection, scientists must ensure that they do not provide any third party's personal and confidential information to online GenAI systems;
    - Scientists must understand the technical and ethical implications concerning privacy, confidentiality and intellectual property rights. They are responsible for knowing, for example, the tools' privacy options, the entity that manages the tool (public or private institution, company, etc.), the place where the tool is being used and the implications for any information uploaded. These could range from closed environments or hosting on a third-party infrastructure with guaranteed confidentiality to open platforms accessible on the Internet.

- Comply with applicable provincial, national and international legislation when they use GenAI in their scientific activities. The results produced by GenAI can be particularly sensitive, especially when it comes to the protection of intellectual property rights and of personal information.
    - Scientists must remain alert to the risk of plagiarism (text, code, images, etc.) when using GenAI results. They must comply with moral rights and copyright, and are required to cite the work of other parties. AI-generated results may be based on someone else's results, which require proper acknowledgement and citation.
    - Results produced by GenAI may contain personal information. Scientists are required to handle personal data responsibly and appropriately, and to comply with the policies, laws and regulations pertaining to the protection of personal information.
    - Scientists must remain alert to changes in policies, laws and regulations pertaining to GenAI tools.
- Follow the scientific publishers' or granting agencies' rules applicable to the evaluation of research proposals or articles.

GenAI tools are evolving fast and new uses are being discovered on a regular basis. It is highly recommended that scientists:

- Learn to use GenAI tools correctly in order to maximize the benefits and minimize the risks associated with their use, notably by taking training courses;
- Stay up to date on best practices and share them with their colleagues and other stakeholders.

6 PROHIBITION OF THE USE OF GENERATIVE AI FOR SCIENTIFIC EVALUATION

Members of the review committees formed by the IRSST are not authorized to insert the content of a funding application, either in whole or in part, into a GenAI tool unless they have obtained prior consent from the IRSST's Research Fund and Partnerships Division (RFPD).

Reviewers tasked by the IRSST with the scientific evaluation of various documents published by the Institute (IRSST, 2025) are not authorized to insert the content of the document under review, either in whole or in part, into a GenAI tool unless they have obtained prior consent from the IRSST's RFPD.

This prohibition is based on the need to safeguard applicants' intellectual property rights, privacy and data confidentiality.

7 DECLARATION OF USE OF GENERATIVE AI

7.1 In grant and scholarship/fellowship applications

Scientists who submit a grant or scholarship/fellowship application to the IRSST must be transparent about their intentional and substantial use of GenAI. In particular, they must:

- Declare if they intentionally and substantially used one (or more) GenAI tools in preparing their application, and must detail the name of the tool, the version, date of use, etc., as well as how it was used;
- Provide information on the role of GenAI in the proposed and completed research activities.

Non-substantial use of GenAI tools in preparing the funding application does not have to be declared (for example, the use of a writing or translation aid).

7.2 In documents published by the IRSST

The authors of IRSST-published documents (reports, guides, fact sheets, etc.) must be transparent about their use of GenAI. In particular, they must:

- Declare if they intentionally and substantially used one (or more) GenAI tools in their scientific activities, and must detail the name of the tool, version, date of use, etc., as well as how it was used and how it affected the research process. If applicable, scientists must provide the prompts used and data outputs, in accordance with the principles of open science;
- Include, in the Acknowledgements section, any GenAI tool that was used intentionally but not substantially (for example, to revise or translate the text), if applicable.

8 UNIT RESPONSIBLE FOR THE POLICY

The Research Division is responsible for disseminating, updating and implementing the policy.

9 EFFECTIVE DATE AND UPDATING OF THE POLICY

The Policy takes effect as soon as it is adopted by the IRSST's Board of Directors.

The Policy is updated as needed or at least every two years.

10 REFERENCES

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