Genomics Integration Program

Human Health

Guidelines
and Evaluation Criteria

May 2023

GenomeQuébec

GenomeQuébec

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1. GÉNOME QUÉBEC MISSION AND OBJECTIVES

Génome Québec's mission is to catalyze the development and excellence of genomics research and promote its **integration** and **democratization**. It is a pillar of the Québec bioeconomy and contributes to Québec's influence and its social and sustainable development.

To ensure the development of research excellence in genomics, Génome Québec funds large-scale projects in Québec's priority sectors. The mobilizing effect of these investments helps to maximize socio-economic benefits and establish Québec as a leader in the field of life sciences.

Objectives:
One of the key elements of the Génome Québec strategy for 2018-2023 entails support for genomics research. This translates into ensuring the development of research excellence in genomics by stimulating partnerships with end users:

i. Promoting genomics as a tool for economic development in Québec;
ii. Supporting the development of genomics in strategic sectors for Québec;
iii. Optimizing the success rate of Québec in Genome Canada competitions;
iv. Ensuring the emergence of new research teams in genomics;
v. Ensuring the uptake of research results by end users;
vi. Increasing the contribution of external partners (private and international);
vii. Developing emerging sectors with high potential.

2. OVERVIEW

Genomics is a disruptive technology capable of both saving lives and creating wealth. With more than one billion dollars invested over the past 20 years through Génome Québec, Québec has acquired a critical mass of competitive expertise to make genomics a pillar of economic development. If we look to the global environment, we can see that major countries are adopting national strategies on genomics in medicine, in which we can note the unique feature of the Canadian business model in terms of genomics funding.

Genomics offers real deliverables and solutions with major economic potential. It has the capacity to improve our way of doing things by boosting productivity and enhancing quality of life for all. Genomic applications can foster innovation in private corporations and public organizations whether through improved procedures, lower costs, or the launch of new products. It is up to us to use this expertise to create new innovative and lucrative economic opportunities that can bring about the expansion of industrial clusters derived from genomics knowledge.

3. THE GENOMICS INTEGRATION PROGRAM

In this context, Génome Québec has launched the ***Genomics Integration*** *(GI)* **Program** to achieve its genomic adoption objectives by user communities. The program consists of grants ranging from $50,000 to $200,000 to cover 50% of the funding for collaborations between researchers in Québec and users who can implement or commercialize the research results.

The funds must be used to develop a **proof of concept** that could be leveraged to secure subsequent funding, or to implement the results of the **proof of concept** by the user partner at the end of the project. Projects must deal with human health and include a genomic technology component – for example, development of new genomic technologies, using artificial intelligence to exploit genomic data, genetic engineering, synthetic biology, validation of therapeutic targets or biomarkers identified through genomics, etc.

The main program objectives are to:

- Develop applied genomics technologies;
- Foster and facilitate collaborations between user communities and academia on applied genomics research;
- Stimulate an increase in R&D activities in Québec;
- Prepare and train new scientists to address human resource requirements in the academic, industrial, government, clinical and financial sectors;
- Promote employment and economic growth in Québec by creating attractive and stimulating positions in Québec for researchers who receive education and training at our universities;
- Improve communication between senior management from private corporations and the academic research environment;
- Encourage the implementation of genomics research programs in very young companies, academic research centres, SMEs and larger companies;
- Foster the transfer of technology and knowledge from research to practical applications with significant impacts in the health field;
- Promotion of the use of tools derived from genomics technologies in the Québec healthcare system.

3.1. Eligibility

To be eligible, projects must meet the following criteria:

i. The teams must be composed of at least:
   a. One researcher affiliated with a public research institution in Québec (university, college, or an institution with a research mandate). The researcher may only submit one application per program cycle;
   b. One non-academic organization tasked with implementing or marketing the results, which can include private companies, industrial consortia, non-profit organizations, hospitals, or government departments or organizations (federal, provincial, and municipal), etc.

ii. The non-academic organization must demonstrate its capacity to implement or market the project results. Non-academic organizations have the option of including this demonstration in a use, implementation, or commercialization plan*.
   This plan can include:
   a. Revenues generated by the commercialization of similar products;
   b. Support from potential clients/end users;
   c. Incubation/training in life science commercialization;
   d. All additional information in support of its implementation/commercialization capacity.

* The submission of a use plan, implementation or commercialization plan will be considered as an asset.

iii. Projects must pertain to human health and include a component derived from genomics technologies. The word "genomics" is meant to be a generic term that encompasses genomics, proteomics, metabolomics, bioinformatics, genetic engineering, synthetic biology and all related "omics" fields.
iv. Projects must meet a significant need for the non-academic partner.
v. Projects must generate socio-economic benefits for Québec: job creation, economic growth in Québec, cost savings for public institutions, impact on society, quality of life, health, etc.
vi. The funds cannot be used for new discoveries. They must be used to establish proof of concept.
vii. The proof of concept could be used as leverage to obtain subsequent funding. If applicants indicate in their application the possibility of obtaining potential funding sources, they must justify their capacity to obtain the necessary funding and the need for the proof of concept. The proof of concept could also allow the user partner to integrate the results of the projects. If so, applicants should detail their ability to incorporate the results of the proof of concept at the end of the project.

Equity, Diversity, and Inclusion (EDI)

The research landscape in Canada is experiencing a shift in its understanding and implementation of equity, diversity, and inclusion (EDI) values. The Canadian government, funding agencies, universities, research institutes and CEGEPs have committed to support and take action to increase EDI at the heart of their communities and promote it at each stage of the research process.

At Génome Québec, we understand that the quality of genomic research and the solutions provided become richer and superior when different perspectives and expertise are brought to work together, providing room for a variety of views and ideas.

The present funding opportunity offers the multidisciplinary teams an opportunity to bring different voices to the table and work on EDI principles to enhance the impact of the research proposal, not only on the deliverables to be produced, but also on the people working on these solutions and on those who will implement and benefit from them. We therefore expect teams to integrate EDI values in the research plan and experimental design, as well as in the composition of the team, and choice of end users and stakeholders consulted and impacted by the project. If one or many EDI considerations do not apply to their research, applicants may be asked to explain why they are not relevant in the application.

We recommend all applicants consult the FRQ and NSERC guidelines on EDI, the funding opportunity evaluation criteria in Appendix A, as well as the Génome Québec EDI guiding principles in Appendix B.

We also encourage applicants to complete the training module on Bias in Peer Review.

3.2. Funds Available, Co-Funding and Term of Projects

Applicants may request grants ranging from $50,000 to $200,000 per project. They must secure co-funding of at least 1:1, for a total budget of $100,000 to $400,000 or more. Sources of co-funding can be the user, namely private companies, industrial consortia, or any other source other than the ministère de l'Économie, de l'Innovation et de l'Énergie (see section 4.4.1). In-kind contributions are accepted if they are provided in Québec. The duration of projects must be 6 to 24 months. Génome Québec funding can only be paid to the academic partner.

3.3. Cohorts and Available Genomic Data for Health Research

Genome Quebec would like to promote the use of available genomic data to the health research community. We invite interested researchers to contact the CARTaGENE and the BQC19 cohorts if these data are applicable to the proposed research project.

CARTaGENE

CARTaGENE is a public research platform made up of both biological samples and longitudinal data on the health and lifestyle of 43,000 Quebec men and women between the ages of 40 and 69 at recruitment (https://cartagene.qc.ca/).

Recruitment was done in two phases (A : 2009-2010 and B : 2013-2014). Available data include health survey, nutritional, environmental and lifestyle as well as physical measures. Biological samples were collected to generate biochemical, lipid profiles and genomic data (genotyping and imputation data for the full cohort, whole genome sequencing (n=2,184), transcriptomic (n=1,000), etc.). Moreover, participants data are linked to other databases (genealogy (Balsac, environmental (CANUE), etc.). Clinico-administrative data updated on an annual basis (MED-ECHO, Cancer registry, etc.) are also accessible and linked.

CARTaGENE is accessible to all public and private health researchers. For details, contact access@cartagene.qc.ca.

Biobanque québécoise de la COVID-19 (BQC19)

The *Biobanque québécoise de la COVID-19* (BQC19) offers, via a quick and easy access process, a wide range of data derived from the analysis of samples from more than 6,000 participants, including COVID-19 patients, as well as control subjects. Among these data, genome-wide sequencing and genotyping (GWAS) of the host genome is available for more than 4,000 participants, and transcriptomic analyses are available for more than 1,000 participants. In addition, the biobank also offers metabolomic, immunoserology, and proteomic data, as well as Roche laboratory analyses, and the participants' associated clinical data.

For more information on the data and what types of analyses are available at the BQC19, please visit the website at https://en.quebeccovidbiobank.ca/donnees-partagees.

For more information on the access process, you can also visit the website at https://en.quebeccovidbiobank.ca/acceder-au-materiel-de-la-bqc19 or feel free to contact the BQC19 Access Officer, Doris Ransy at : doris.ransy@affiliate.mcgill.ca.

4. APPLICATION AND EVALUATION OF PROPOSALS

4.1. Application Process of Proposals under the GI Program

Applicants from academic and non-academic organizations interested in submitting proposals under the GI Program can contact Génome Québec (see section 6 for the name of contact) for any questions relating to eligibility. Following the deadline for submitting applications, Génome Québec will determine whether the application meets the eligibility criteria described in these guidelines and can therefore be reviewed by the external evaluation committee. Applications must be submitted by email to Integration@genomequebec.com using the form available at the Génome Québec website. There will only be one step in the assessment.

Applications will be assessed by a committee composed of scientific experts, and industry and healthcare representatives. All committee members will be required to sign a confidentiality agreement and report any conflict of interest. The committee will evaluate each application based on the evaluation criteria featured in Appendix A. It will give advice and recommendations to Génome Québec. Once a decision has been made, applicants will be given the result of the evaluation along with a summary of the strengths and weaknesses of their application.

If at any time during the initial review process, an application is found not to meet the general eligibility criteria as defined in Appendix A, Génome Québec WILL NOT submit it for peer review and evaluation.

Génome Québec reserves the right to modify the evaluation process if the complexity of the applications, the volume of applications received, or other factors justify it. All modifications will be quickly shared with applicants.

4.2. Eligible Costs

Funds can only be used for eligible costs, which are defined as reasonable costs for items that directly support the objectives of the project approved by Génome Québec:

- Salaries and benefits;
- Consumables;
- Services provided by third parties;
- General and administrative fees;
- Equipment.

Project budgets must **NOT** include items for which funding has already been approved from other sources unless the request for funding of these items was specifically made to support activities in the Génome Québec project and meets all other eligibility criteria. Expenses funded through Génome Québec and expenses covered by eligible co-funding must be incurred after the Notice of Award (NOA) to be considered as eligible costs.

Eligible costs are the same as those for Genome Canada projects. A description of the Genome Canada eligible and non-eligible costs can be found in the Guidelines for Funding by Genome Canada.

4.3. Non-Eligible Costs for Génome Québec

The following expenses are not eligible under Génome Québec criteria:

i. Salaries (or bonuses) for the principal investigator and co-investigators;
ii. Costs of entertainment, hospitality and gifts, such as the cost of regular interactions with colleagues from the institution and personnel meetings;
iii. Costs associated with staff awards and recognition;
iv. Education-related costs, such as thesis preparation, tuition and course fees;
v. Costs involved in the preparation of teaching material;
vi. Indirect costs to the project, including institutional overhead costs;
vii. Costs of basic services, such as heat, lighting, water, compressed air, distilled water, vacuums and janitorial services supplied to all laboratories in a research facility;
viii. Insurance costs for buildings and equipment;
ix. Costs associated with regulatory compliance, including ethical review, biohazard or radiation safety, environmental assessments or provincial or municipal regulations and by-laws;
x. Monthly parking fees for vehicles, unless specifically required for field work;
xi. Sales taxes to which an exemption or rebate applies;
xii. Costs of moving a lab;
xiii. Costs related to alcoholic beverages;
xiv. Expenses of incorporation and legal fees associated with a new or spin-off company.

4.4. Co-Funding

The complete application must include all documentation related to the secured co-funding. The co-funding must be at least equal to the contribution made by Génome Québec (minimum of 1:1). Here are examples of documentation required:

i. Written confirmation, such as a letter of commitment from the co-funding source;
ii. If the co-funding is from industry, documentation supporting the organization's financial viability and its ability to fulfil its co-funding commitment (e.g., statement of cash flow, most recent audited financial statements, press release announcing significant new funding);
iii. If the co-funding is from a funding agency, in addition to the above, a copy of the first page of the application, a project summary, detailed budget and notice of award (if applicable). Please note that the documentation must clearly demonstrate that the funding will be used for eligible costs included in the project budget approved by Génome Québec;
iv. For in-kind contributions: clear rationale and calculation of how the value of the contribution was determined, including documentation to certify the contribution (e.g., price lists, etc.). All in-kind contributions must be auditable by external experts.

4.4.1. Eligible Co-Funding Sources

Génome Québec will accept the following potential co-funding sources, which can be Canadian or foreign, as long as the expenses are incurred in Québec:

i. Institutional funds, trust funds or foundations;
ii. Private companies and industrial consortia;
iii. Departments and agencies of the federal government, including the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council (NSERC), Social Sciences and Humanities Research Council (SSHRC) and tri-agency programs (e.g., Networks of Centres of Excellence, and Canada Research Chairs);

iv. Departments and agencies of the provincial and municipal governments are eligible, with the exception of the ministère de l'Économie, de l'Innovation et de l'Énergie (MEIE);
v. Firms and corporations;
vi. Non-profit organizations;
vii. Individuals;
viii. Venture capital or other investment funds;
ix. Cash contributions as co-funding are preferred. However, in-kind contributions, defined as non-cash contributions that can be given a cash value, may be considered as co-funding if:
    a. The value can be reasonably determined and supported by documentation;
    b. The value of the contribution is based upon the fair market value of a tangible item and sufficient justification is provided. Supplier discounts are one example. However, institutional discounts generally offered to medical establishments or research facilities are not eligible as co-funding.

4.4.2. Non-Eligible Sources of Co-Funding

i. The value of previously existing intellectual property transferred to a project is NOT considered eligible co-funding;
ii. Co-funding not associated with proof of concept;
iii. Co-funding from a Québec funding organization supported by the ministère de l'Économie, de l'Innovation et de l'Énergie (CQDM, FRQ, CRIBIQ, MEDTEQ, etc.).

5. ADMINISTRATION

5.1. Conditions of Release of Génome Québec Funds

The grant will be awarded by Génome Québec and must meet the requirements of Génome Québec. The following are the minimum requirements to allow for the disbursement of funds by Génome Québec:

i. Signed agreement between Génome Québec and the academic institution that establishes the resolution of major areas, such as contributions, funding terms, termination policy, financial policies, etc.
ii. Approved budget, updated objectives and milestones in accordance with the recommendations of the Génome Québec review panel;
iii. Appropriate certification for proposals involving research with human subjects, human stem cells, animals, biohazards, radioactive materials or possible effects on the environment.

5.2. Project Readiness

All applicants must demonstrate that they will be able to meet all conditions of the release of Génome Québec funds within three (3) months from notification of approval (see section 5.1 on conditions of release of Génome Québec funds). **Génome Québec reserves the right to withdraw its funding for any approved project that is not ready to receive the funding or for which signed agreements as described in 5.1.i, have not been secured, within three months from notification of approval**.

5.3. Management of Funding

The Génome Québec funds will be transferred to the academic institution once all the conditions listed in section 5.1 have been met. Two instalments will be made. The first 90% of the funds will be released upon receiving the signed agreements. The remaining 10% will be released once the final reports have been provided, and a strategic exit meeting has been held, no later than 3 months following project completion.

The final reports must describe at minimum the accomplishments of the project. They must include a final financial report – for which a template will be provided by Génome Québec – that must reconcile actual expenses to budgeted amounts, proof of the co-funding received for the project and the current state of any concrete outputs developed as a result of Génome Québec funding.

The strategic exit meeting will consist of a virtual discussion with representatives of Génome Québec and will help orient the teams' transition from a proof of concept towards development for commercialization or implementation.

5.4. Accountability and Reporting

Génome Québec must meet the evaluation, auditing, responsibility and accountability requirements stipulated by the ministère de l'Économie, de l'Innovation et de l'Énergie, including information that allows Génome Québec to evaluate the ongoing performance of projects and their related activities. It is the responsibility of funded researchers to participate in this process and provide the necessary information on the project's performance and progress as required by Génome Québec. As part of its responsibilities, Génome Québec will implement mechanisms to evaluate, on an ongoing basis, the performance and productivity of funded projects in order to determine whether funding must be continued, reduced, suspended or withdrawn. These mechanisms include the final report and the closing strategy meeting, as well as any other form of review that is deemed necessary.

6. GÉNOME QUÉBEC CONTACT

Arnaud Cheuk, PhD (he/him)
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Integration@genomequebec.com

APPENDIX A – Evaluation Criteria

To ensure that the objectives of Génome Québec are met, proposals are assessed based on the following: the level of need for the genomics technology by users; the scientific excellence, the project's potential to secure subsequent funding through its proof of concept; commercialization or implementation potential of the project; and socio-economic impact for Québec. The descriptors following each criterion are not all-inclusive.

A) Broad Criteria of Eligibility

1. The project is directed towards applied genomics or related research areas (proteomics, metabolomics, bioinformatics, genetic engineering, synthetic biology, etc.);
2. The project has the potential to have a major impact on human health;
3. The presence of a user and academic partner as principal investigators and degree of involvement of both partners;
4. The project is carried out in Québec.

B) Need for Genomics-Based Innovation

1. Capacity of genomics to solve the user issue;
2. Genomics-based innovation results in significant improvement compared to other possible solutions.

C) Scientific Criteria

1. Scientific excellence of the proposed research as confirmed by peer review; particularly the extent to which the proposed research will establish a proof of concept from the use of genomics-based technology in the context of interest
2. Feasibility of the milestones and the critical path table, proposed objectives and goals;
3. Quality of the scientific environment in which the work will be done.

D) Next Steps in the Process of Use, Implementation, or Commercialization

Applications will be evaluated according to one of the following two avenues:

a) Potential to obtain subsequent funding

1. Identification of subsequent funding source(s);
2. Demonstration of project eligibility;
3. Demonstration of the need for proof of concept, for example, to meet eligibility criteria or prior assessment;
4. Description of the leverage effect of the proposed GI Program project, for example, by including a financial plan of subsequent steps, including public and private funding sources.

b) Potential for technology integration by the user

1. Description of the integration of results by the user;
2. Demonstration of the integration of project results;
3. Demonstration of the need for a proof of concept for the user;
4. Description of the anticipated impact of the proof of concept on the user.

E) Commercialization/Implementation Plan

The path towards the commercialization or implementation of the innovation is realistic and clearly defined:

1. The steps to be taken are grounded in a proven business model;
2. The proposed approach is feasible based on a realistic schedule;
3. The sources of funding in support of this approach are identified and realistic;
4. The legal, social, economic, logistic, etc. barriers are identified and a strategy to minimize their impact is described.

F) Social and/or Economic Benefits

1. The quality of the plan for the transfer, dissemination, use, implementation or commercialization (as appropriate) of the expected results of the proposed research;
2. The demonstration of how the research results will contribute to job creation and economic growth in Québec and their impact on society, quality of life, health and the environment, including the creation of new policies in these areas;
3. Expected outcomes are quantified and realistic.

G) Project Management and Expertise of Project Leaders

The quality and experience of applicants affiliated with the proposal: the appropriateness of the training and/or track record of the applicant(s) for the proposed research, in particular, prior contributions to public-private collaborative research; the importance and originality of the recent productivity of the applicant(s); and the level of confidence in the ability of the applicant(s) to do the work proposed.

H) Inclusion of EDI Principles

1. Extent to which the research plan applies to the needs or experiences of various groups (beneficiaries);
2. Extent to which the genomic solution is to be conducted with relevant and impacted communities, how knowledge will be accessed and shared;
3. Extent to which the proposal considers the different forms of support required (e.g., financial, logistical, cultural, linguistic) to ensure that the individuals or communities involved in the research can meaningfully participate in it (as research participants or end users);
4. Extent to which the finding of the research project will be disseminated and applied to the population as a whole or be limited to certain groups;
5. EDI considerations to the constitution of the team (composition of the research team [recruitment and retention], roles of team members in research design and research execution, transfer of knowledge and training, etc.).

The valuation will be based on the overall proposal and the actions or methods planned by the research team to address EDI principles.

I) Financial Criteria

1. Budget and financial control processes
    a. The budgeted costs meet the definition of Eligible Costs (section 4.2);
    b. The budgeted costs are aligned with the proposed research plan and activities; the relationship between the proposed costs and potential benefits of the research proposed is evident;
    c. The budgeted costs of the project are reasonable.

2. Co-funding
    a. The proposed co-funding plan complies with the Eligible co-funding guidelines provided in section 4.4;
    b. The supporting documentation is made available, which may include a letter of commitment or signed agreements by co-funding sources, quotes from suppliers, grant applications to other funding agencies or confirmation of grants received;
    c. The demonstrated relationship between the proposed co-funding and the objectives of the project.

APPENDIX B – Equity, Diversity, and Inclusion Guiding Principles

Génome Québec is committed to integrate the values of Equity, Diversity and Inclusion (EDI) in its funding opportunities. It is understood that the quality of genomic research and the solutions provided become richer and superior when different perspectives and expertise are brought to work together, providing room for a variety of views and ideas. Projects are expected to integrate EDI concepts and principles and showcase active steps taken to promote an inclusive research environment, to diversify the team composition, and to consider and include the individuals that will be impacted by the research and making it accessible afterwards to diverse audiences.

EDI principles are transversal and should be reflected throughout your full application by incorporating them into your project design. We have listed below five areas and some guiding questions to help you address EDI considerations and design concrete actions to be integrated into your research proposal. Some might not apply to your project.

1. Community Engagement

Thoughtful interactions with end users can help build solutions that will be quickly adopted and meaningfully impact the community. The ''user-drive'' aspect brings depth and weight to the project and acts as a selling point of the proposal. Here are some key items to consider:

a. Engagement and consultation with users and stakeholders
    i. Did stakeholders participate in the development of research questions or objectives?
    ii. Is the diversity of relevant stakeholders involved enough? Are we missing key parties?
    iii. How will stakeholders be involved throughout the project?
b. Relevance
    i. Are research questions and solutions addressing the needs of stakeholders? Were they defined or defined following consultation with stakeholders?
    ii. Is the project informed by the community?
    iii. Is the developed technology useful and practical for users?
c. Inclusion
    i. How will you integrate diversity in the selection of participants during consultations (survey, meeting, round tables, workshops)?
    ii. Do you plan to consult with marginalized groups or communities?
d. Result sharing
    i. Are the dissemination strategies of results adequate for various stakeholders and community impacted by the research?
    ii. Will results, data generated, and technologies developed accessible to the various participants of the research project? Will participants be automatically informed of the project outputs?

2. Team Composition and Environment

Building a strong research team is paramount to the completion and success of the project. Skill, expertise and proficiency are essential, but EDI consideration can also help establish and maintain a high-performing, diverse team. Consider:

a. Creating a diverse team and inclusive environment
    i. It is not recommended to add statistics regarding the diversity of your research team as it could be interpreted as ''Tokenism'' of underrepresented groups within your research team.
    ii. Not be discouraged by international hires because of immigration procedures.
b. Adopt and describe best practices for recruitment and human resource management
    i. Unconscious bias training (See Unconscious Bias and Recruiting)
    ii. Following the institution's Human Resources policies and following EDI principles for selection (criteria, postings, selection committee is diverse, the candidates are divers, etc.)
    iii. Establishing conflict management guidelines
c. Early-stage researchers, receptors, and trainees
    i. What type of support and mentorship will be provided to each group?
    ii. Does the institution have specific programs for trainees?
    iii. How will you encourage trainee recognition and promote inclusive excellence?
        1. Scholarships (implication, parental support, excellence, diversity, travel, publishing, etc.)
        2. Participation at student competitions (conferences, ''Ma Thèse en 180 secondes'', etc.)
d. Clarifying the roles within the research team for accountability
    i. Responsibility of the research design
    ii. Executing and analysis of research activities
    iii. Dissemination of results
    iv. Interaction with stakeholders
e. Training
    i. EDI training for all your team (resource from your institution, Dimensions charter, workshops, consultants, etc.)
    ii. Ensure equity in training opportunities within the team

3. Barriers and Benefits

This section pertains to the project's experimental design and could help refine the genomics and its ethical, environmental, economic, legal and social aspects (GE^3LS) portion of your proposal. The goal is to increase the likelihood of success of the project by:

a. Limiting unintended consequences to the innovation
b. Addressing systemic barriers (policies, procedure, practices) and proposing concrete actions to mitigate them
c. Proposing risk mitigation strategies
    i. Are there barriers to the change of practice? How will they be handled?
    ii. How will delays impacting the research plan and team be addressed?

d. Putting forth EDI elements into the research plan is essential for successful implementation. This could include but is not limited to:
    i. Elaborating a strategy to engage a diversity of users and stakeholders;
    ii. Determining if social or demographic data will be collected and if analyses will be disaggregated according to key identity factors;
    iii. Research that relies on animals or living organisms that are either male or female should include a note on disaggregated sex analysis;
    iv. Carefully selecting research methodologies (participatory methods, sampling strategies, participant profiles, consultants, co-creation of collection tools, etc.).

4. Accessibility

Defined as ''the combination of aspects that influence a person's ability to function within an environment'', it refers to the openness to put in place specific accommodations (logistical, financial, technical, linguistic, cultural, physical, related to work-family balance, etc.) for your research personnel to thrive in your laboratories and participate efficiently to the research effort. It could also refer to accessibility of your research deliverables, outputs, and datasets. Your proposal could elaborate on:

a. How can you provide a safe, inclusive and barrier-free environment? How will this type of support be managed? Who will be responsible for this?
b. The management of parental or other types of leave policies and work-family or study-family balance measures;
c. The accessibility and sharing of research data within the team, especially in a decentralized context or within a network. Are there barriers to the sharing of data?
d. Considering not only accessibility in the context of lab work, but potentially field research while travelling and with users or stakeholders;
e. Will the research results be accessible in lay terms? Are there intentions to present the research to a broader audience (i.e., people outside of the field)?

5. Research with Indigenous Communities

If your project plan included research with indigenous communities, it is essential to read and be aware of the different protocols and guidelines related to indigenous collaboration (see links below). Teams should carefully consider if and how this aspect should be addressed. For instance, consider:

a. Co-creation principles, including engaging with the communities and identifying their needs, interests, expectations, to elaborate research objectives or formulate research questions;
b. The First Nation principles of ownership, control, access, and possession (OCAP);
c. Aligning with reconciliation principles from the Canadian Government or other recommended action towards reconciliation;
d. Referring the Tri-Council Policy Statement, Chapter 9, on research involving the First Nations, Inuits and Métis People of Canada. This is considered a staple guide for research in Canada;
e. Adopting the Assembly of First Nations Québec-Labrador Research Protocols;
f. Favoured methods for dissemination of results inside and outside the community;
g. Intellectual property principles within indigenous communities could differ, requiring discussions and mutual agreement on the methods to be used;
h. Decolonization principles.

Other References:

- BAKER Jocelyn et VASSEUR Liette "Inclusion, diversité, équité et accessibilité (IDÉA) — Pratiques exemplaires à l'intention des chercheurs", Commission canadienne pour l'UNESCO, Ottawa, Canada, août 2021
- Chaire pour les femmes en sciences et en génie au Québec - Outils pour l'ÉDI en recherche
- Commission de la santé et des services sociaux des Premières Nations du Québec et du Labrador, UQAT, UQO, Réseau de recherche et de connaissances relatives aux peuples autochtones — Boîte à outils des principes de la recherche en contexte autochtone
- Réseau québécois pour l'équité, la diversité et l'inclusion (RQÉDI) — Ressources
- Conseil de recherche en sciences naturelles et en génie du Canada — "Guide du CRSNG pour la prise en compte des considérations en matière d'équité, de diversité et d'inclusion dans la recherche"