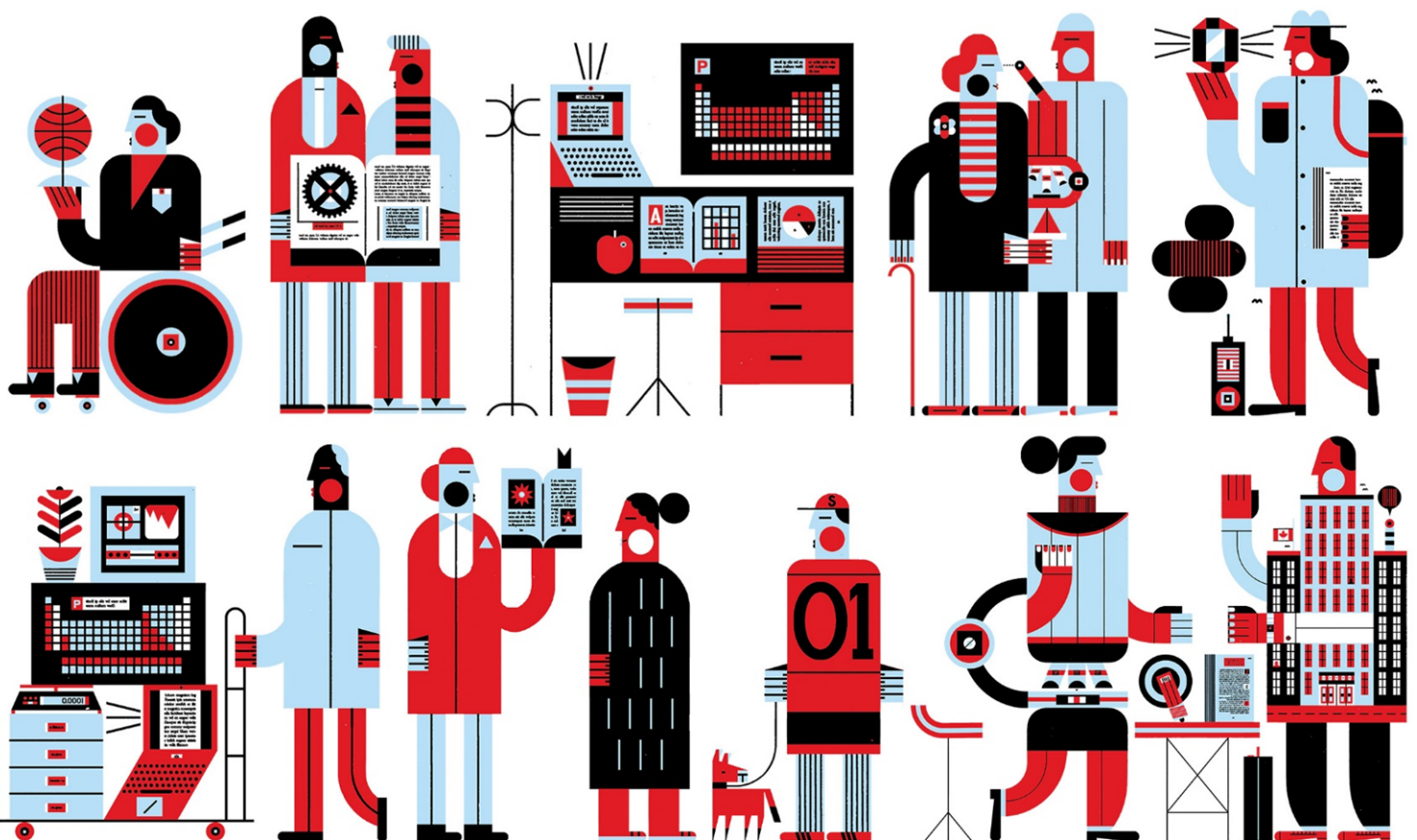


NSERC's Accessibility Plan

Summary Report on Consultations

August 2023



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Rapport sommaire des consultations

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Acknowledgements

The Natural Sciences Engineering and Research Council (NSERC) would like to thank everyone who took the time to provide valuable insight and thoughtful comments throughout this consultation process. Your contributions will help shape our work as we seek to remove and prevent barriers in the design and delivery of our programs and services, especially for persons with disabilities, by 2040.

Anyone interested in providing further feedback on [NSERC's inaugural Accessibility Plan](#) is welcome to do so by following [the instructions provided on our website](#).

Introduction

After an initial identification¹ of key barriers and mitigating actions, NSERC's Equity, Diversity, and Inclusion (EDI) Strategy Team undertook consultations (see Appendix B) focused on the design and delivery of programs and services.

NSERC staff proceeded with targeted consultations to validate, expand on, and add to, the barriers and mitigating actions identified. Consultations with persons with disabilities is a central and mandatory² component of the development of Accessibility Plans by federally regulated institutions.

Within NSERC, various governing bodies and working groups were consulted and provided input, mostly on the proposed mitigating actions. Some individuals also suggested names of stakeholders to engage with. This summary report on consultations focuses on input received during the targeted external consultation process, whereby key informants shared their own experiences of barriers, commented on the barriers NSERC identified, and added to the proposed actions.

Methodology

Participants were identified through existing contacts, based on publications related to accessibility in research, or through organizations known to work with or advocate for persons with disabilities. A snowball approach was also used: in the initial email communication, people were invited to share NSERC's invitation with other researchers who have some familiarity with (in)accessibility in the natural sciences and engineering (NSE) – they either have publicly disclosed having a disability, advocate for people with disabilities, or conduct research that would support people with disabilities.

The initial response to NSERC's outreach was generally positive, with most respondents opting for an interview and many indicating they remained available to offer further advice and comments. While these conversations are ongoing, most of the input was collected between October and December 2022.

1. This preparatory work was based on information gathered by the Advisory Committee to Address Barriers to Accessibility of the Social Sciences and Humanities Research Council (SSHRC) and the External Advisory Committee on Accessibility and Systemic Ableism of the Canadian Institutes of Health Research (CIHR). Content of previous NSERC consultations and findings from the literature provided further insights in relation to barriers that are specific to the natural sciences and engineering.

2. Under "duty to consult," the Accessible Canada Act (ACA) contains the following instruction: "The regulated entity must consult persons with disabilities in the preparation of its accessibility plan and every updated version of its accessibility plan."

In order to capture information on the diversity of respondents to these targeted consultations, each respondent was asked to fill in the [Tri-Agency self-identification questionnaire](#). Twelve informants submitted their answers through the self-identification questionnaire (out of a total of 17 informants). Despite our efforts to reach a broad and diverse group of stakeholders, many disabilities were not represented; the ones that were identified by informants are related to mobility, hearing, communications, seeing, mental health, and dexterity (some listed more than one disability). Everyone identified as heterosexual, no one mentioned an Indigenous ancestry, and there was only one person who identified French as their main language (first language learned at home and language still spoken at home). In continuing its work on accessibility and in developing future iterations of its Accessibility Plan, NSERC will be mindful of the need for greater diversity among informants.

The table below provides an overview of some of the sociodemographic characteristics of participants in these targeted consultations.

Table 1: Summary of self-identification data provided by informants

Questions	Disability		Gender ³		Visible Minority	
	Yes	No	Man	Woman	White	Other ⁴
Number of informants	6	6	6	6	10	2

Input was gathered through two main methods: 1) an online questionnaire that informants could complete anonymously and 2) via one-on-one interviews with a member of NSERC’s EDI Strategy team. Before their interview, informants received a PowerPoint presentation summarizing the barriers that NSERC had identified, as well as some of the proposed actions for removing and preventing these barriers. They were asked to discuss the barriers presented and any that may be missing, and to highlight which ones NSERC should prioritize. This approach was also taken to discuss the proposed actions. While informants received the questions in advance and these helped frame the one-on-one interviews, these conversations were free flowing.

Barriers for researchers with disabilities

Broadly speaking, the barriers included in the consultation document related to NSERC’s programs, services, and policies (how members of the research community engage with NSERC and vice-versa); and barriers related to conducting research in the NSE more generally.

NSERC’s programs, services, and policies

Access to information and NSERC’s communications with its community

Areas for improvement that were identified included greater transparency with regards to available accommodations; ensuring that NSERC’s webpages and the available documents are accessible (compliance with Web Content Accessibility Guidelines [WCAG 2.0 AA]); and using

3. Respondents had the choice between seven gender identities and the possibility of writing in their gender identity by choosing “I don’t identify with any option provided” or “I prefer not to answer.” The only two answers selected by informants were “man” and “woman.”

4. The two informants who did not identify as white indicated what group they identified with. However, as this was a very small number of respondents, to maintain anonymity, we are not disclosing with which groups they identified.

proper formatting when producing communication materials, such as PowerPoint presentations (font, colour contrast, etc.).

Current practices in service delivery

Three main barriers were identified. First, the application platforms that NSERC uses are not fully accessible to applicants and peer reviewers who are Deaf or have a visual disability.

A second barrier is NSERC's approach to "delays" in the research and dissemination of research results. It aims to recognize that situations may arise that can impact researchers' productivity and asks that, in their applications, researchers explain and give dates for any significant delays in the research activity or in the dissemination of research results (see the [Policy and Guidelines on Contributions to Research and Training](#)). While this is meant to ensure that committee members consider the impact of these circumstances on the level of productivity, this approach may pressure researchers into disclosing personal information and may also expose them to review bias.

Partly related to the previous barrier is how NSERC's evaluation processes overlook achievements relative to opportunity (for example, a person with a disability may not have or may have only limited opportunities to participate in certain types of activities, such as conferences abroad; or may need to work part-time and this may impact the number of highly qualified personnel [HQP] they work with, their publication records, etc.).

Finally, most funding opportunities at NSERC operate using strict deadlines, which poses a barrier to individuals who may need time-related accommodations.

Agency policies

While accommodation expenses related to the cost of research are eligible, no additional funding is allocated; this can result in fewer funds for other research-related activities such as hiring of HQP and may disadvantage them.

Some eligibility criteria, for example under the Undergraduate Student Research Awards (USRAs), could exclude persons with disabilities. Specifically, the [USRA eligibility criteria](#) state that to hold an award, a student must "be employed full time in eligible research and development activities in [their] proposed field of research during tenure of the award," and requires that NSERC "not reimburse the institution for any period during which [a student] worked part time." This may penalize students with disabilities who are unable to work full-time.

Conducting research in the NSE

NSE research culture

Scientific research is demanding and may be accompanied by several assumptions and expectations, such as high, continuous research productivity and full-time work. A researcher's history of securing research funding can also have significant impacts on career progression, such as obtaining a faculty position.

Conducting fieldwork and lab work

Physical work environments can pose a challenge to researchers with certain disabilities. For example, labs may necessitate retrofits to ensure that a researcher with specific mobility requirements can safely navigate it, or that a person who uses a wheelchair could access some of its safety equipment (eyewash stations, safety showers, fume hood, etc.). Waiting for these adjustments to be made can mean that researchers face additional delays. Field sites, for

geoscientists for example, can also present numerous obstacles for researchers with certain disabilities. Further, and as mentioned by some informants, assumptions that others make about field sites and the capabilities of their colleagues with disabilities mean that they may be excluded from certain projects. Lastly, other realities of research can represent barriers: the experimentation and testing processes that often involve a lot of failure can negatively impact some individuals' mental health; having to travel to remote locations and work long hours for fieldwork can remove researchers from their usual support structure and lead to health-related difficulties.

Inaccessible meetings and conferences

Conference travel is often more expensive for researchers with certain disabilities and the costs (when directly attributable to the research/activities) must be covered from existing research funds. Researchers who need to be accompanied by a support person generally must cover their salary (unless they have access to financial assistance to cover these costs, or unless this person is a volunteer, family member, or friend), costs of travel and accommodation, and sometimes also registration costs of attending the event(s). These expenses “take away” from funds that researchers would like to dedicate to their research (including hiring of HQP). Organizers themselves sometimes overlook accessibility requirements at their events and, for example, do not provide sign language interpretation or braille signage, or do not select their venue based on physical accessibility and conference room acoustics. As a result, some may opt out or may be excluded by those who might assume that colleagues with a disability are not able to participate.

The 2019 COVID pandemic, including its related travel restrictions, encouraged the hosting of virtual events, which led to enhanced opportunities for some researchers with disabilities. The lifting of restrictions on travel and in-person events may lead organizers to return to in-person events, which could result in excluding, once again, some researchers with disabilities.

Reaction from informants

Lack of understanding around disability

One barrier that was not included in the consultation deck relates to assumptions made about persons with disabilities, particularly when seen as a homogeneous group. When the phrase “researchers (or persons) with a disability” was used during the consultations, it was often met with a question: which disability or disabilities? Some informants noted that certain disabilities are associated with more stigma than others and that the age of onset can be a good indicator of the impact of a disability on someone's life. Some informants expressed discomfort with speaking about barriers that researchers with disabilities face, since there may be a whole range of barriers that would differ from one person to another, based on their disability and other life circumstances. Some informants also noted that they were speaking from “their” perspective and could not speak on behalf of individuals with other disabilities, asking if NSERC was engaging with enough people to cover a wide range of disabilities.

Other examples that were raised regarding the lack of understanding that persons with disabilities encounter included assumptions that are made about their abilities, needs, or preferences (noting that they themselves are better placed to speak to these) and the extra burden (and sometimes cost) of constantly having to explain and justify that they need certain measures.

Reviewer bias

Some informants noted that reviewer bias may be a deterrent to providing information with regards to delays in research (for example, how their disability may have meant they had to work part-time for a certain period) when submitting a funding application. They indicated that since reviewers consider the ability of an applicant to conduct the research they are proposing, an applicant with a disability may worry that if their disability were known, they would be seen as less capable. Fear of being judged by reviewers was also raised as a possible explanation for not applying at all. Finally, another informant noted that they felt they were “using up” space in their Discovery Grant application to explain their circumstances, and that they would prefer if this space were only used to discuss the merit of their proposal.

Policies, programs, and application platforms

Some informants explained how systemic ableism can be found in existing policies and programs, including in how achievements are assessed. One mentioned how researchers with disabilities are “working against a non-disabled timeline” and that there is no recognition that being a disabled researcher means that it is likely that they will need more time to conduct their research, regardless of disability.

Speaking of timelines, informants noted how considerations are needed for people who experience chronic pain or episodic conditions, as there may be periods when they experience a relapse in their conditions and may not be able to meet deadlines.

Some costs (for example, to attend events) and delays (for example, waiting for a specific piece of equipment or for their labs to be retrofitted) are believed to be overlooked in current policies and seen as negatively impacting their CVs. People with disabilities may also need support mechanisms and extra time to apply to NSERC programs but are continuously asked to explain or justify why this is needed, which is taxing.

The request to provide justification also extends to expenses that researchers with disabilities must cover (for example, a more expensive but direct flight to and from a conference). To avoid this additional work, one participant explained that they often use their personal funds. However, this leads to inequities with non-disabled researchers, who may be less likely to spend their own money to accomplish their work.

Two barriers raised by informants relate to students more specifically. First, there are financial implications for students who spend more time completing their studies (as opposed to the “expected” time frame for graduating) and, consequently, end up paying more tuition than their colleagues who finish earlier. While this is outside NSERC’s sphere of influence, this financial pressure was noted as a barrier for students pursuing graduate studies and even obtaining their undergraduate degrees. This may explain some of the attrition in the pursuit of studies in the NSE. Second, a perception that agencies impose a limit on how often a student may apply to a funding opportunity (Canada Graduate Scholarships – Master’s Program; Canada Graduate Scholarships – Doctoral Program) was noted as a barrier. One informant explained how when students with disabilities start their degrees in the NSE, it can take some time to figure out what accommodations they need, the nature of their research might change, etc. – which means that they may have made adjustments since a previous (failed) application that would make them more successful in a next application.

Finally, informants agree that NSERC’s application platforms are problematic. Some said they would not “bother” applying for tri-agency funding because it was too frustrating and

inaccessible; another informant (who identified as not having a disability) shared how they helped a colleague (with a disability) apply through our systems and they, themselves, found it challenging. While some of NSERC's platforms are deemed WCAG compliant, one informant reacted by saying how problematic it is to rely on vendors' explanations regarding software compliance and accessibility, because their goal is to sell a product. Meeting what are perceived as "minimal standards" is "insufficient." Others indicated that there are real barriers in the systems that NSERC uses, namely for people who use screen readers and those who have coordination issues.

NSE research culture

NSE research culture is seen as unwelcoming to researchers with disabilities – for some, this culture is the biggest barrier. Assumptions around high and continuous (as well as fast-paced) research productivity are perceived as ableist.

One example provided was the lack of representation of researchers with disabilities in the NSE. Some asked: Why do researchers with disabilities submit so few research funding applications? Why are there so few researchers with disabilities in the NSE? What do students with disabilities learn during their undergraduate degrees – often in an unwelcoming environment – that helps or does not help with pursuing graduate studies, or being equipped to work in the NSE upon graduation? To illustrate this under-representation of researchers with disabilities in the NSE, some noted being "the only" faculty member within their whole institution who would have, for example, mobility issues, or having "never heard of" another faculty member with a disability.

With regards to research excellence more broadly, informants acknowledged that the NSE remains very focused on "conventional outputs and publications," rather than considering the social impacts of research.

Another example relates to publications in academic journals: researchers with disabilities may not have as many publications as non-disabled researchers (where the number of publications is often perceived as an indicator of one's research excellence). Publications themselves are often not accessible to people who use screen readers according to some informants.

Finally, expectations surrounding some activities within academia were also identified as barriers, with the importance placed on networking cited as an example. While recognized as an opportunity to build social capital which could then lead to collaborations, finding a new supervisor, or other opportunities, networking was also cited as a barrier. For example, an informant who identified as having hearing loss noted that they found networking events particularly challenging as they do not always hear everything that is said during conversations and discussion periods. They believe they cannot really contribute to the conversations and added how they fear appearing "less intelligent" or "less engaged" during these events.

Conducting fieldwork and lab work

Some mentioned that they were still working from home (some had started before the COVID-19 pandemic) as being on campus was unsafe for them due to underlying conditions – or simply more complicated to get to. Teleworking was discussed in positive terms, with the recognition that it may not be a solution to all, particularly for those who need access to specialized lab equipment.

Others mentioned that to conduct their research, they may need some “physical” help (carrying material collected during fieldwork to their offices / on-campus storage space) but noted that it was unclear who could help with this – it is not the type of work that would justify hiring HQP, for example, due to the nature of the work and limited amount of work involved.

Proposed actions to address these barriers

NSERC’s programs, services, and policies

Access to information and NSERC’s communications with its community

To increase transparency with regards to available accommodations, the creation of a dedicated webpage with all information pertaining to accommodation and accessibility supports, policies, and guidelines was proposed. The second action identified was conducting an accessibility audit / full review of NSERC’s online pages to ensure accessibility of contents.

Current practices in service delivery

To enhance the accessibility of services delivered, NSERC staff should receive further training to increase their awareness and understanding of the barriers faced by researchers with disabilities. Dedicated training on topics such as accessible communication practices could also address some barriers.

NSERC could also implement a single point of access for accommodation requests (or identify a member of staff who would be responsible for accessibility requests). Ensuring that persons with various disabilities are consulted in the development of the Tri-Agency Grants Management System (TGMS), an upcoming user-centric solution to better support applicants, administrators, and reviewers during the grants management life cycle, is another action that may help prevent barriers in service delivery.

In relation to NSERC’s peer-review process, two actions were proposed: build on the [Unconscious Bias Training module](#) to address the realities of researchers with disabilities; and increasingly include peer reviewers with expertise in critical disability studies as well as individuals who identify as having a disability as peer reviewers.

Agency policies

NSERC collects, monitors, and reports the self-identification data that applicants, peer reviewers / selection committee members, and advisory / governance board members provide through the [Tri-Agency Self-Identification questionnaire](#). This data provides information on the diversity of the population applying for and receiving NSERC funding and participating in peer and merit review, which increases our capacity to monitor our progress on increasing EDI in programs, to recognize and remove barriers, and to design new measures to achieve greater EDI in the research enterprise. To better understand barriers to participating in NSERC’s programs and committees, it is proposed that NSERC continue with this data collection, monitoring, and reporting.

To account for situations where applicants may not be able to submit by the program deadline, NSERC should also formalize and further expand its flexibility framework.

An additional action is to redefine research excellence to recognize a wider range of contributions to research-related activities.

Finally, the co-development of a Statement of Principles on research conducted by, with, and for people with disabilities could frame the collective responsibility of NSERC, as well as the researchers and trainees it funds, towards research that is accessible to and inclusive of people with disabilities and towards fair and equitable treatment, review, and evaluation of research conducted by and for people with disabilities, and to ensure appropriate talent support.

Conducting research in the NSE

NSE research culture

Using current external communications mechanisms (for example, [NSERC's Impact Stories](#)) to regularly feature the accomplishments of researchers with disabilities in the NSE may contribute to greater awareness of their contributions and reduce stigma, thus influencing the broader NSE research culture.

Direct cost of research

The Tri-agency Guide on Financial Administration (TAGFA) contains a [statement on EDI](#) highlighting how “all administering institutions ... must make concerted efforts to develop and implement policies and procedures that advance the goals of EDI in the use of grant funds, to achieve equitable participation in the research system.” However, some institutions hesitate to approve expenses that are related to accommodation, particularly when, for example, a more economical option exists (travelling is often cited as one such example). Working with institutions to raise awareness around these issues is one tangible action that could be implemented. Also, considering other forms of financial support (or the addition of a budget line in applications for expenses relating to accommodations) may help counterbalance the inequity that researchers with disabilities face when having to cover these expenses using their research funding.

Inaccessible meetings and conferences

Requiring that events benefiting from NSERC funding be accessible to persons with disabilities would send a clear message to the community around the organization and hosting of events. This may increase accessibility to researchers with disabilities, as well as help change the NSE research culture by proactively including considerations for persons with disabilities. Considering other forms of financial support for implementing accommodations during events and conferences would also support the inclusion of persons with disabilities.

Conducting fieldwork and lab work

The [Dimensions](#) and [Institutional EDI Capacity-Building grants](#) programs may help develop, leverage, and disseminate best practices that institutions could implement in support of members of their communities. Some institutions are particularly creative in adapting workspaces and finding solutions to enhance accessibility of field sites (or providing alternatives to a physical visit to a field site), which could be shared with others. Finally, existing programs (from the tri-agency and other partners) could be adapted to provide financial support for accessible research infrastructure.

Reactions from informants

NSE research culture

Informants want to see NSERC influence the achievement of a more accessible and inclusive post-secondary research system and a more welcoming NSE culture. Showcasing the

achievements of researchers with disabilities was positively received, with one warning: avoid tokenism.

To bring about a change in culture, informants also noted that it is important to work “early on” – for example, working with students is a promising approach. Some asked if NSERC could implement targeted awards for students with disabilities (perhaps using an approach like the USRAs, which allow institutions to recommend applications from self-identified Indigenous applicants to the USRA program beyond their quota allocation). Dedicated funding for students with disabilities would encourage the students themselves and may be an incentive for researchers to hire more students with disabilities.

Another suggestion, although outside of NSERC’s direct sphere of influence, was to include more researchers with disabilities in science textbooks. Since there is a lot of stigma around researchers with disabilities, increasing their visibility as students learn about science was deemed a useful response.

Agency policies and programs

As there are many types of disabilities and people are not necessarily impacted in the same ways by their disabilities, informants recommended that NSERC be flexible in how it responds to the barriers that persons with disabilities encounter. More specifically, three of NSERC’s current policies or programs were discussed:

First, informants discussed direct funding opportunities supporting accessibility. They noted that current opportunities could have clearer text regarding accessibility, indicating, when applicable, that it could be used specifically to increase accessibility. The [Research Tools and Instruments](#) (RTI) program was listed as an example: an informant mentioned needing a specific type of vehicle to access fieldwork that would also meet their physical mobility needs (while perhaps “any” pickup could work for non-disabled researchers, this was not the case for them). Having text in the RTI program that highlighted how accessibility considerations would be considered would encourage researchers applying to this funding opportunity. Another suggestion was to create new funding opportunities, for example inspired by the current support for early-career researchers through the [Discovery Launch Supplements](#), which provide additional funds. This suggestion was presented as a concrete measure that NSERC could take to help cover additional expenses that researchers with disabilities must cover from their research grants.

Second, some informants suggested that additional requirements or stronger language be added to current funding opportunities. For example, to help drive change outside academia, one suggested that additional requirements be added to the [Alliance grants](#), requesting that partners have comprehensive accessibility policies to better support researchers with disabilities within their organizations. Another suggestion was to include stronger language in all application guidelines, similar to how NSERC added EDI as a requirement in applications: how was accessibility considered in your application?

Third, when discussing current measures that NSERC has implemented, some informants deemed that the [EDI Statement that was added to the TAGFA](#) was insufficient. Those who commented on this indicated that if institutions did not have inclusive policies that recognized the specific needs of persons with disabilities, or if their administrators were not adequately informed, then researchers with disabilities would end up being penalized. They noted that most often, researchers turn to their institutions for guidance on policies and spending and may

receive incomplete or inaccurate information. NSERC could work on better circulating this type of information to administrators.

Informants generally responded well to the proposed action of co-developing, with researchers with disabilities, a Statement of Principles on research conducted by, with, and for people with disabilities. Added considerations included the following: how there are instances where research **should only or may be better** done by persons with disabilities and how involving persons with disabilities leads to better and more innovative research (requiring more innovative methodological approaches, offering a more comprehensive understanding by involving more diverse participants, etc.).

Proposed new elements or improvements to NSERC's practices in service delivery

Improving awareness and knowledge of persons with disabilities, uncovering and addressing bias against persons with disabilities, and increasing the use of promising practices for accessible communications: these were all actions identified as a good first step. However, one informant commenting on the Tri-Agency [Unconscious Bias Module](#) (which is currently being updated with content that focuses on persons with disabilities) indicated that the module itself was not fully accessible (in terms of how content is presented and in the navigation of the module itself).

Discussing NSERC's application platforms, one informant noted that a positive feature of the Common Curriculum Vitae (CCV) is the possibility of carrying information over from previous years (noting how time-consuming filling out the CCV is). With regards to the TGMS, one recommendation is to go beyond WCAG compliance and aim for true accessibility. This, it was said, could be achieved through engagement with persons with various disabilities (both in the testing and evaluation of proposed solutions). One informant also added a cautionary note: to beware of checklists, as these generally serve to meet the minimal requirements and do not adequately serve accessibility.

A single point of access for accessibility-related demands was seen as helpful for persons with disabilities (applicants for funding opportunities and members of NSERC's review and governance committees). Implementing this measure was also seen as increasing transparency and illustrating how NSERC values accessibility and EDI – which would send a positive message to the community.

Meetings and conferences

Hybrid access to conferences and meetings was received favourably, seen as a measure to increase accessibility, and not only for persons with disabilities. Others (students, people who have fewer financial means, and those who have difficulty travelling abroad due to visa requirements) could benefit from conferences permitting virtual participation. Some believed that having virtual access to these events should now be considered the norm and that one access should not be favoured over another (online participants should have equal access to question periods, for example). One person, however, noted that in their experience, conferences held virtually are not optimal for networking and should not completely replace in-person events.

For events that NSERC leads, informants suggested that a contact person for accessibility requirements be identified for all events, and that NSERC proactively ask for people to indicate any accessibility requirements prior to events.

Additional themes emerging from the consultations

Terminology is key

While terminology did not come up in every discussion, when it did, informants were generally in agreement: language and terminology are key. Words used to refer to disability as well as how disability and accessibility are defined were identified as a key consideration that will influence NSERC's vision and actions. For example, some informants were quite critical of the definition of disability that is adopted in the ACA (also used by the Tri-Agency self-identification questionnaire): for some, it emphasized a "deficiency framework"; for others, its reliance on a medical understanding of disability was problematic. One informant said, "disability is seen as weakness, defect or incapacity ... why would you identify as that?" and another noted "Humans do not want to see themselves as "defective products." For yet another, the phrase "researchers with disabilities" was "almost offensive," suggesting that we instead aim to create a research ecosystem in which "all researchers, regardless of function" can access the information and tools to thrive. It was also noted that perhaps the definition of disability was not broad enough as, for example, individuals with chronic pain may not feel like the definition includes this condition.

Others emphasized how our understanding of "accessibility" will necessarily shape the actions NSERC would take (for example, in being proactive about identifying and removing barriers, or merely responding to requests as they arise). Another example that came up in some consultations was that terms currently used by the funding agencies are themselves biased (some labelled them as "ableist"). These terms and their understanding are seen as shaping the evaluation process of research grants, scholarships, and fellowships and, consequently, negatively impacting researchers with disabilities. Another informant suggested removing certain terminology and replacing it altogether: instead of disability, focusing on "function," which they found less stigmatizing; instead of accommodation, which sounds like the person receiving it is almost receiving a favour, using language such as "making this environment so that you are supported to be the best researcher you can be." Interestingly, one informant took a completely different stance, saying "let us call a spade a spade" – indicating that perhaps some had discomfort due to difficulties in accepting their disability, but that they, themselves, were "a disabled person."

Some also asked why "accessibility" is often left out of EDI (and often left out of EDI training), meaning that persons with disabilities are ignored, considered as an afterthought. It was positively observed that institutions are increasingly moving towards explicitly adding "the A" (EDI-A).

No consensus on data collection

The collection of self-identification data, particularly questions around disability, brought some polarized views from informants. On the one hand, some resisted this mechanism, for reasons such as a lack of clarity as to why the data is collected and wording of the questions that lacked sensitivity (one indicated that wording can be "off-putting", implying that "you're not able to do everything that everyone else can do without help"). On the other hand, others believed that the agencies did not collect enough information, adding that data regarding "age of onset" should be collected along with the type of disability, to better understand the severity and barriers that one may have encountered. One informant specifically noted that "data is a powerful tool for advocacy and change," while another mentioned that for NSERC, individuals choosing not to

provide answers represent a real challenge, since it is “difficult to implement initiatives without knowing who applies.” Another suggested collecting data on types of accommodations people require and how much these cost, as this could help decision-making on providing additional financial support.

When lower response rates to the question on disability in the questionnaire were discussed, many felt that the agencies should clarify why this data is collected, agreeing that it may be a sensitive question for some. NSERC could highlight how this information increases the granting agencies’ capacity to monitor their progress on increasing EDI in their programs, to recognize and remove barriers, and to design new measures to achieve greater EDI in the research enterprise.

Continued engagement

Many informants expressed their desire to keep this conversation going (“keep in touch”; “don’t hesitate if I can be of more help”). Consultations on accessibility were described as “crucial” by one informant and, unsurprisingly, the need for further engagement with persons with disabilities came up numerous times. It was deemed necessary for the funding agencies to work with persons with disabilities as soon as they start developing new policies or programs (for example, TGMS). With regards to NSERC’s work in developing its Accessibility Plan and meeting the ACA requirements, some suggested that NSERC should have adopted an approach similar to CIHR and SSHRC, which have external advisory committees. Moving forward, recommended actions should be field-tested appropriately by working with persons with disabilities. Others expressed their general satisfaction with NSERC, taking the time to consult with researchers with disabilities.

In thinking about ways to reach more participants in future consultations, one informant linked this need to the self-identification questionnaire: perhaps adding the question “Would you like to participate in future NSERC consultations?” may help (with the option of adding one’s email address if answering “yes”).

Training the next generation

Training the next generation of NSE scientists emerged as a barrier that informants discussed in relation to the stigma attached to persons with disabilities.

Informants noted that there were very few incentives to hire students with disabilities and instead several apprehensions directly linked to how the NSERC evaluates the “HQP” criterion in funding applications. For example, some had concerns that in describing “training outcomes,” researchers who work with students with disabilities may not be able to speak much of outcomes in the NSE, as students with disabilities may face discrimination in hiring upon graduation and not pursue a career in the field. Others noted that for some colleagues, the investments were not worth it: hiring a person with a disability or making their labs accessible seemed to require too much effort and time, and that prejudices and presumptions of a “lack of competence” led to people fearing “investing” in hiring a student with a disability.

Another barrier was having a pre-selection of student awards at the university level. As students with disabilities can face stigma and biases – they often need to advocate for the accommodation with their institutions – some believed that institutions may not be the best placed to select student applications from a bias-free perspective.

Accountability, monitoring, and resourcing

Some informants added that clear accountability mechanisms are needed. While staff may be passionate and committed, unless there are resources allocated and a clear structure of accountability, there was fear and skepticism that this would amount to a tick-the-box exercise. Key NSERC decision-makers must have the authority to implement change – for example, a chief accessibility officer who would be “high level” within NSERC, have authority, and be able to measure progress. This chief accessibility officer would need to have an appreciation of the uniqueness of accessibility barriers and requirements in the NSE (as some barriers are very NSE-specific) and would need to directly report to senior management and not be solely under the responsibility of Human Resources.

Finally, monitoring of NSERC’s work towards meeting the objectives of its Accessibility Plan also came up. Some informants asked how NSERC will measure its progress. What does NSERC mean by seeking to “improve accessibility”? How will NSERC demonstrate progress on this file?

Broadening our scope

It was recommended by some informants that NSERC work on recognizing the eligibility of other organizations, including non-governmental organizations that also do research. Since there are researchers with disabilities who do research within these organizations, making them eligible to apply for and receive NSERC funding could increase opportunities for researchers with disabilities outside academia.

Informants who conduct interdisciplinary research felt that it was next to impossible to have this recognized by the funding agencies, which focus more on “traditional” disciplines, which do not include disability studies. The absence of funding for EDI-related research in the NSE was also mentioned as a problem and as something that could help change the culture in the NSE.

Next steps

As input was gathered from informants, NSERC started to work on its Accessibility Plan. Some informants were only available for an interview “later” in the process, meaning that some of their very specific suggestions were not included in the Plan. Their comments were generally in line with those provided by informants earlier in the process, adding examples to what was previously raised.

Following the publication of its inaugural Accessibility Plan, NSERC will develop an implementation plan that will identify specific actions and milestones against which progress will be monitored. Input received during the consultation process will also serve to inform the development of this implementation plan.

By December 31, 2023, NSERC will publish its first annual progress report. In the third year after the publication of this Plan, NSERC will have an opportunity to revise the plan to incorporate any new barriers identified and to adjust goals to best reflect progress made. Multiple feedback mechanisms, including [an anonymous form](#), are available to enable staff, members of the research community, and the general public to continue contributing to this plan into the future.

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Appendix A: Acronyms

ACRONYMS USED IN THIS DOCUMENT

- ACA: Accessible Canada Act
- CCV: Common Curriculum Vitae
- CIHR: Canadian Institutes of Health Research
- EDI: Equity, Diversity, and Inclusion
- HQP: Highly Qualified Personnel
- NSERC: Natural Sciences and Engineering Research Council
- NSE: Natural Sciences and Engineering
- RTI: Research Tools and Instruments
- SSHRC: Social Sciences and Humanities Research Council
- TAGFA: Tri-agency Guide on Financial Administration
- TGMS: Tri-agency Grants Management System
- USRA: Undergraduate Student Research Awards
- WCAG: Web Content Accessibility Guidelines

Appendix B: Consultations: Guiding questions

The following questions were used to guide exchanges with informants:

Barriers faced by researchers with disabilities

1. What would you say are the three main barriers faced by researchers with disabilities in the NSE fields? (as listed on the following slides, or missing from this list)?
2. Among the ones listed, which ones should we address first (which may have the most significant impact if removed first)?

Towards NSERC's Accessibility Plan (proposed actions)

3. What is NSERC doing well in the area of *design and delivery of programs and services* (or what should we continue doing)?
4. In your experience, what has worked well to increase the accessibility of programs, policies, services, etc. (e.g., where you work, in your interactions with other organizations)?
5. Are there other policies or promising practices to consider for short- and long-term implementation?
6. Broadly speaking, do you have any recommendations as to how NSERC should move forward, towards a barrier-free research ecosystem?

General questions

7. What other key stakeholders (who either have a disability, who advocate for people with disabilities, or whose research may help support persons with disabilities) from the NSE community should we engage with?
8. How can NSERC better address the reticence to self-identify with having a disability?
9. Do you have any other reactions regarding the contents for this presentation, or more generally around NSERC's work towards ensuring fair access to research support for scientists with disabilities?