



8. Review of Major Resources Support Grant Applications

8.1 Contact Points

- For missing documents: Program assistant
- For any other matter: Program officer

8.2 Objective

The objective of the Major Resources Support (MRS) program is to facilitate the effective access of Canadian academic researchers to major and unique national or international (based in Canada) experimental or thematic research resources by financially assisting these resources to remain in a state of readiness for researchers to use. MRS grants are not intended to support resources that are standard in a discipline or commonly available in Canadian universities. The national scope of a resource is linked to its uniqueness in Canada **and** the requirement for its significant use by a sufficiently large number of users (not collaborators) from across the country, beyond any individual institution or region. The international scope requires a resource to first serve a national community of users, in addition to a significant use by a sufficiently large number of users from outside Canada.

The MRS program also aims to facilitate access by Canadian academic researchers, who come together as **national** consortia, to **major** international resources located outside Canada, the equivalent of which is not available in Canada. This support excludes any direct financial support towards the operating and maintenance costs of such resources.

Research resources are defined as experimental research facilities or thematic research organizations such as institutes. An institute is defined as a research resource that promotes and triggers national, and possibly international, interactions within a given research community and provides a place where researchers meet, collaborate and exchange ideas. Institutes are resources that provide an environment that serves to accelerate research within disciplines, as well as to promote links between different disciplines, thus fostering interdisciplinary research.

8.3 Description

MRS grants assist major and unique **national** or **international** experimental and thematic research resources located in Canada in covering their operating and maintenance costs. Supported resources are those that cannot fully cover such costs using other sources of funding or through user fees, or those where user fees cannot be leveraged. The grants assist resources that are significant in size, value or importance, and that are not

customary in a discipline or commonly available in Canadian universities. Supported resources must be used by researchers from several institutions (including universities, government laboratories, or companies) across Canada.

Major resources supported by this program may include:

- unique specialized experimental facilities or field research stations;
- research institutes that promote and trigger interactions within the constituents of relevant communities;
- a core of highly skilled technical or professional research support staff essential to the research activities of a group;
- a large specialized items of research equipment; or
- a collection of specialized samples or objects, as defined in the [Framework for Researchers Working with University-Based Collections](#).

MRS grants also assist Canadian academic researchers who come together as **national** user consortia to access major resources located abroad and whose equivalent is **not available** in Canada. Such support excludes any direct contribution towards the operating and maintenance costs of foreign resources. The support is not given to individual researchers, but rather to the user consortia, which must be composed of researchers from several institutions (including universities, government laboratories, or companies) across Canada.

8.4 Conflict of Interest

The conflict of interest guidelines found in Section [6.7.1](#) of this manual apply to the review of MRS grant applications. In addition, a member is considered in a situation of conflict of interest when the member is, or was in the last six years, a member of any advisory body (such as a committee) to a resource applying for support.

For MRS grant applications involving **at least four** universities, a Committee member from the same institution as the applicant, or one or several of the co-applicants, is allowed to participate in the discussions and vote as long as the member is not affiliated to the same department.

NSERC's guidelines on conflicts of interest will be strictly applied throughout the various steps of the review process.

8.5 Criteria for Evaluation

Any grant application to the MRS program must be assessed on the basis of the eight selection criteria listed below. For each criterion, factors that must be considered are

given. To be recommended for MRS funding, a resource must meet **all eight** criteria. The onus is on the applicants to thoroughly address each criterion in their applications and provide detailed information to the MRS Grant Selection Committee.

- **Uniqueness of the resource**
 - The research resource is **not standard** in a discipline and is **not commonly available** in Canadian universities.
 - The **national** or **international** nature of the resource. The national scope of a resource is linked to its uniqueness in Canada **and** the requirement for its significant use by a sufficiently large number of users (not collaborators) from across the country, beyond any individual institution or region. The international scope requires a resource to first serve a national community of users, in addition to a significant use by a sufficiently large number of users from outside Canada. The onus is on the applicant to demonstrate to the Committee that the resource is needed and **significantly** used by a sufficiently large number of users (academic and non-academic) from outside the host institution and beyond a region.
 - The uniqueness of the resource compared to **any** other Canadian resources that may be providing similar services. Does the resource complement or duplicate part or all of any other resource? Where applicable, is any duplication necessary and justified? In case of any duplication, could the involved resources have coordinated or combined their activities in order to become a unique national resource?
 - **Significant use** of the resource by a sufficiently large number of users (academic and non-academic) **from outside the host institution and beyond a region**.
- **Use of the resource by the research community**
 - Past (if applicable), current and projected levels of use of the resource.
 - Accessibility of the resource to, and actual use by, researchers (academic and non-academic users) beyond the host institution and a region.
 - Potential for collaboration with complementary Canadian or, if applicable, international resources.
 - Extent to which the resource can accommodate the specialized needs of the users.
 - Demonstrated outreach to the potential Canadian or, if applicable, international academic and non-academic user communities.
- **Need for access to the resource for the research programs**
 - Impact of the resource on the advancement of the research programs of current and projected users and, when applicable, on the dissemination and use of the generated knowledge in the supported area(s) of research.

- Consequence of the loss of access to the resource on the users' research programs.
- **Merit of the research programs that rely on access to the resource and excellence of the user community**
 - In the case of experimental resources: quality, significance and pertinence of ongoing research programs of the users.
 - In the case of thematic resources: quality, pertinence and impact of the past (if applicable), current and planned scientific activities, and significance of the research themes to the related communities.
 - This factor, as the previous one, can be assessed by answering questions found in Section [6.6.1.2](#), Merit of the Proposal.
 - Excellence of the users and, in the case of thematic resources, excellence of activity organizers and users, and their level of commitment to the activities within the resource.
 - This factor can be assessed in a similar way to the Scientific or Engineering Excellence of the Researcher(s) in Section [6.6.1.1](#). Co-applicants are major users of the resource. The applicant and every co-applicant are allowed to include one page each in the application to describe their individual research programs, their use of the resource, the importance of the latter to their research programs and to the training of their highly qualified personnel, and to list relevant contributions.
 - Scientific (knowledge and technology) return on the investment in the resource.
- **Demonstrated need for support through an MRS grant**
 - Demonstrated need for, and effectiveness of, support through an MRS grant as opposed to other NSERC grants and contributions from other sources.
 - Nature and extent of the commitment and support from universities and other organizations.
 - Justification of the requested funds from NSERC.
 - Proposed sharing of costs among NSERC, universities and other sources, including user fees (if applicable).
 - Rationale for the proposed user fees (if applicable).
- **Management of the resource**
 - Effectiveness of the management structure.
 - Administration and allocation of access to the resource to different users (internal and external, from universities, government or industry).

- Is there a process to ensure accessibility of the resource to users from outside the host institution? Is the resource active in reaching out to potential user communities in order to increase their awareness of the activities and opportunities offered by the resource? Are outside users part of the resource's governing body or user committees?
- Plan and budget for maintenance and operation of the resource.
- Plan of the resource to keep abreast of scientific and technical advances, as well as to sustain well coordinated and leading edge research activities.
- **Contribution of the resource to the training of highly qualified personnel**
 - Importance of the resource for training, including unique training opportunities offered by the resource.
 - Extent and excellence of training.
 - Opportunity for hands-on training.

Refer to the Section [6.6.1.3](#), Contribution to Training of Highly Qualified Personnel, in order to assess this criterion.

Note that the use of, or the need for, the resource, with respect to the completion of student projects and theses should be addressed under the third criterion above, "Need for access to the resource for the research programs."

- **Synergy**
 - Defined as the extent to which a grouping of equipment, staff or participants enhances the value and capability of a resource and enables researchers to obtain results or carry out studies that would otherwise be very difficult or impossible.

8.6 Eligible Expenses

Support of Resources Located in Canada

MRS grants provide funding to assist in covering the following costs:

- Salaries of technical and professional research support staff employed to operate and maintain the resource, as well as to provide assistance to users;
- Operating and maintenance of the resource;
- Materials, supplies and minor equipment essential to the operation and maintenance of the resource;
- Travel expenses for resource support staff of the facility to attend conferences as part of the resource's plan to keep abreast of scientific and technical advances;
- Dissemination costs, as part of the resource's outreach activities towards relevant user communities; and

- Operation of scientific review panels and governing bodies.

Furthermore, in the case of thematic resources, MRS grants also provide funding to assist in paying the following costs, which should be listed as part of the operating costs:

- Remuneration of graduate students and postdoctoral fellows involved in a context of thematic or collaborative program;
- Visitor expenses, including travel and local support; and
- Honoraria for distinguished speakers.

In the case of experimental resources, the costs of running the facilities should be split into two major components: non-recoverable and recoverable. **Only non-recoverable costs are eligible** for MRS funding.

- Non-recoverable costs are those expenses necessary to keep the experimental resource in a state of readiness for researchers to use, and to increase the awareness of the potential user communities of the activities and opportunities offered by the resource. They are independent of the number of researchers actually using the resource, and are not associated with specific research projects.
- Recoverable costs comprise expenses directly incurred when researchers and their highly qualified personnel use the experimental resource. Examples of such costs are those for consumables that are used for specific projects, sample preparation and analysis in the case of analytical facilities, and food, fuel and staff salaries for specific projects in the case of field stations. Recoverable costs should be charged as user fees against the users' Discovery Grants or other funding sources, and they should **not be included** in the amount requested from the MRS program. Regarding user fees, NSERC recommends that holders of MRS grants adhere to the guidelines given in Table I. In some cases, a moderate differential between internal and external academic users may be accepted, provided that a case is made to justify it and to demonstrate that its impact on the accessibility to the resource would be minimal.

Type of User	Appropriate Fee
Academic researchers (internal and external) and their students	Lowest rate
Non-academic users from organizations contributing to the resource	Intermediate rate
Non-academic users from non-participating organizations	Highest rate

Table I – Guidelines on user fees for experimental resources

Due to the nature and purpose of **thematic resources**, costs directly incurred when researchers and their highly qualified personnel use such resources are **eligible** for MRS funding. This is in addition to the expenses necessary to keep the resource in a state of readiness for researchers to use, and to increase the awareness of the potential user communities of the activities and opportunities offered by the resource.

Support of Access to Resources Located Outside Canada

MRS grants assist **national** user groups in accessing major resources located abroad, whose equivalent is not available in Canada. Such support **excludes** any direct contribution towards the operating and maintenance costs of such resources. The following costs are eligible for MRS funding:

- Membership or access/user fees;
- Minor equipment needed to accommodate the specific needs of the Canadian users;
- Travel related to the use of the foreign resource, i.e., field work; and
- Salaries of **Canadian** technical and professional research support staff employed to assist in the use of the resource by the Canadian users.

8.7 Ineligible Expenses

MRS grants **cannot** be used to pay for any indirect costs of research or expenses that are central or departmental institutional costs. Examples of such indirect costs include, but are not limited to, those for the maintenance and renovation of research spaces and buildings, leasing costs of spaces and equipment, utilities, general technical support to laboratories, security and occupational safety, or insurance. Other ineligible costs could be found in the [Use of Grant Funds](#) section of the NSERC *Program Guide for Professors*. Furthermore, MRS grants **cannot** be used to pay for the establishment, construction or infrastructure expansion (e.g., capital enhancement) of a resource.

8.8 Application Procedures

The MRS competition is held annually. The first step in applying to the MRS program is to submit a Letter of Intent to Apply for a Major Resources Support Grant ([Form 181](#)). The Letters of Intent undergo a review process to ensure that the resources meet the program's objectives and key guidelines. Only resources whose Letters of Intent are accepted will be invited to put forward grant applications.

The deadline for submitting a Letter of Intent is **May 1**. NSERC communicates with all applicants by the end of July to inform them about the status of their Letter of Intent and to invite the successful applicants to put forward grant applications. The deadline for submitting a grant application is **October 1**.

Case of Subatomic Physics Resources

In the cases of resources that will be reviewed by the Subatomic Physics Section, Form 181 will not be used for screening purposes. It will be used solely to determine the most appropriate review mechanism for each grant application. **All subatomic physics applications will be accepted**, and NSERC will not communicate with the applicants to invite them to put forward grant applications. The deadline for submitting a Letter of Intent for subatomic physics resources is **August 1**.

8.9 Review Procedures

Letter of Intent (excluding subatomic physics resources)

An NSERC internal committee, in consultation with one MRS committee member, will review the Letters of Intent. In addition to the general objectives of the program, the only selection criterion to be assessed in this review will be the major character and uniqueness of the resource. This assessment will be made on the basis of the following factors:

- The research resource is **not standard** in a discipline and is **not commonly available** in Canadian universities;
- The **national** or **international** nature of the resource;
- The uniqueness of the resource compared to **any** other Canadian resources that may be providing similar services; and
- **Significant use** of the resource by a sufficiently large number of users (academic and non-academic) **from outside the host institution and beyond a region**.

Again, the national scope of a resource is linked to its uniqueness in Canada **and** the requirement for its significant use by a sufficiently large number of users (not collaborators) from across the country, beyond any individual institution or region. The international scope requires a resource to first serve a national community of users, in addition to a significant use by a sufficiently large number of users from outside Canada.

The review of the Letters of Intent by NSERC will be done in consultation with members of the MRS Selection Committee or external reviewers. External reviewers will be former members of the Major Facilities Access (MFA)¹ or MRS Grant Selection Committee, or MFA/MRS ad hoc review committees. Reviewers will receive the Letters of Intent that are closely related to their discipline, and will be asked to make written recommendations to NSERC on the eligibility of the reviewed resources on the sole basis of the major character and uniqueness of the resource, according to the four factors listed above. The reviewers' extensive and up-to-date knowledge of the disciplines will allow them to be well-informed critics of these factors.

¹ The MFA program was replaced by the MRS program in the spring of 2006.

The final decision on any Letter of Intent will rest with NSERC. Applicants whose Letters of Intent are accepted will be invited to put forward full grant applications.

Grant Applications (excluding subatomic physics resources)

Applications to the MRS program are reviewed by a multidisciplinary Grant Selection Committee. This Committee is composed of distinguished members who have extensive expertise in, and broad practical knowledge of, experimental and thematic resources in the various disciplines that NSERC serves.

For each application, expert input will be sought from individual referees with relevant expertise. Alternatively, a discipline-based ad hoc committee, comprised of former or current members of NSERC's discipline-based Discovery Grants review committees and possibly other distinguished scientists, may be used to review all the applications in a certain discipline. The referees, or ad hoc committees, will be asked to provide NSERC with a written report addressing the eight selection criteria. No explicit funding recommendation (amount) will be requested in such a report.

Furthermore, in cases where the selection committee deems additional information is required for assessment, a meeting with the applicant may be requested.

The MRS Grant Selection Committee makes the conclusive recommendation to NSERC on any application. The eligibility of applications that have been submitted further to invitation following the Letter of Intent screening process will also be assessed at the application stage.

Grant Applications (subatomic physics resources)

In the case of subatomic physics resources, grant applications are only reviewed by the Subatomic Physics Section. No external input is usually sought. The Section may request expert input from individual referees in other disciplines, if necessary. Furthermore, the Subatomic Physics Section may also receive input from an expert ad hoc committee that would perform an on-site evaluation and review of the resource, in agreement with the Section's internal procedures. NSERC reserves the right to perform an on-site evaluation and review of any subatomic physics resource. Moreover, according to the Subatomic Physics Section's internal procedures, resources may be invited to make oral presentations during the Large Project Day held every year by this Section.

The Subatomic Physics Section makes the conclusive recommendation to NSERC on any subatomic physics grant application to the MRS program.

8.10 Duration and Conditions

MRS grants can be awarded for up to three years. For a given proposal, the MRS Grant Selection Committee can recommend any duration it considers appropriate on the basis of the evaluation of the application.

It is important to remember that when a one-year award is recommended, the applicant will only have about five months to address any problems noted by the Committee, since comments are sent in April and applications are due by October 1.

For grants whose average is of \$500,000 per year or higher, the payment of the second and any of the subsequent yearly installments (up to year 3) is conditional on the submission of an annual activity report to NSERC. The deadline for the submission of such a report is February 1.

8.11 Guidelines for Reduced Funding Recommendations

The MRS Grant Selection Committee may reduce or discontinue funding of a resource for the following reasons:

- budgetary constraints;
- an application does not contain sufficient information, in the opinion of the Committee, to allow adequate assessment of each selection criterion; or
- the resource no longer satisfies the selection criteria.

In any of the above situations, NSERC will consider providing ramp-down funding, subject to availability of funds. The Committee is asked to carefully review the resource's budget and consider the impact of reduced or discontinued funding on the resource's current commitments. Written comments **must** accompany all recommendations for reduction or termination.

The onus is on the applicant to provide sufficient details to allow the MRS Grant Selection Committee to recommend the appropriate level of funding. In situations where insufficient details are provided, either as part of an Application for a Grant (Form 101) or a Personal Data Form (Form 100), the Committee can recommend a reduced duration, reduced funding, or no funding.

8.12 Deliverables

The MRS Grant Selection Committee members who participate in the assessment of an application will be asked to rate it and make a funding recommendation (amount and duration). Committee members should review the applications assigned to them according to the selection criteria listed above. Reviews, formal consultations or site visit

reports will be supplied to the Committee members as soon as they are received by NSERC. These reviews, consultations and reports help provide deeper overall assessments of the applications. The members of the MRS Grant Selection Committee should consider the reviews, consultations and reports as key tools in the evaluation process. The members must, however, **ultimately base their recommendations on their own assessments**. The reviews, consultations and reports contribute to these assessments, but they must not be used on their own to either accept or reject a proposal.

Note: The MRS Grant Selection Committee could have access to the previous comments (Message to Applicant) sent to an applicant at the time of the last review of the applicant's resource, if applicable. These comments should be reviewed **only at the end** of the deliberations on the application to ensure that the current Committee is making a recommendation that takes into account requests or obligations previously communicated to the applicant. When making its recommendation, the Committee may take into account issues raised previously that have or have not been adequately addressed by the applicant in a new application.

8.13 Use of the Rating Form

An excellent aid for reviewing MRS applications is the [Rating Form – Major Resources Support Grant Application](#) that is provided by NSERC. This form is used by the discipline-based review committees or referees. The form focuses on the evaluation criteria and integrates all relevant information. Using this form helps to ensure that all criteria are taken into account when formulating a recommendation. Once completed, the form should be treated as containing protected information.

8.14 Preparing Comments to Applicants

Comments from the MRS Grant Selection Committee are required for all applicants. The internal reviewers of the Committee must prepare such comments for the applications they were assigned. The comments must be circulated within the Committee and be carefully reviewed to ensure that they represent the Committee's discussion and consensus. The final version of the comments must reflect the opinion of the entire Committee. Constructive comments to applicants are of vital importance to enable them to improve future applications. The Committee is encouraged to provide constructive, specific, and helpful comments to applicants. Both **strengths and weaknesses** are appropriate for comment. The comments must be in accordance with NSERC guidelines and appropriate for transmission to the applicant. If at all possible, the Committee should write the comments in the applicant's preferred language.

8.15 [Rating Form – Major Resources Support Grant Application](#)



Rating Form – Major Resources Support Grant Application

Applicant:	University:												
Application no.:	Name of reviewing ad hoc committee or referee:												
Title:													
Requested amounts:													
Degree of relevance to the reviewing committee or referee: <div style="text-align: center; margin-top: 10px;"> <input type="checkbox"/> High <input type="checkbox"/> Medium <input type="checkbox"/> Low </div>													
Total number of applications with a high or medium degree of relevance for the reviewing committee (not applicable to referees):													
Rank/priority of this application (1 st , 2 nd , 3 rd , etc.) relative to the reviewed applications with a high or medium degree of relevance (not applicable to referees):													
Overall merit rating of this application (A ⁺ , A, A ⁻ , B ⁺ , etc.) <table style="width: 100%; margin-top: 10px;"> <tr> <td style="width: 50%;">Must be funded</td> <td><input type="checkbox"/> A+</td> <td><input type="checkbox"/> A</td> <td><input type="checkbox"/> A-</td> </tr> <tr> <td>Worth funding</td> <td><input type="checkbox"/> B+</td> <td><input type="checkbox"/> B</td> <td><input type="checkbox"/> B-</td> </tr> <tr> <td>Do not fund</td> <td></td> <td><input type="checkbox"/> C</td> <td></td> </tr> </table>		Must be funded	<input type="checkbox"/> A+	<input type="checkbox"/> A	<input type="checkbox"/> A-	Worth funding	<input type="checkbox"/> B+	<input type="checkbox"/> B	<input type="checkbox"/> B-	Do not fund		<input type="checkbox"/> C	
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Who is providing this report: <div style="margin-top: 10px;"> <input type="checkbox"/> Ad hoc discipline-based committee <input type="checkbox"/> Referee </div>													



In order to assess whether the request for funds is **justified**, the following criteria must be addressed. Use a maximum of three pages for **detailed** comments and address **all criteria** in the same order as they are listed below. No explicit funding recommendation (amount) is requested.

1. Comment on the **uniqueness of the resource** as demonstrated by (a) the fact that the research resource is **not standard** in a discipline and **not commonly available** in Canadian universities; (b) the **national or international** nature of the resource; (c) its uniqueness compared to **any** other Canadian resources that may be providing similar services; (d) the level of use of the resource by users (academic and non-academic) from **outside the host institution and beyond a region**.

2. Comment on the **use of the resource by the research community** by taking into account (a) past (if applicable), current and projected level of use of the resource; (b) the accessibility of the resource to, and actual use by, researchers (academic and non-academic users) beyond the host institution and a region; (c) the potential for collaboration with complementary Canadian or, if applicable, international resources, (d) the extent to which the resource can accommodate the specialized needs of the users; (e) the demonstrated outreach to the potential Canadian or, if applicable, international academic and non-academic user communities.

3. Comment on the **need for access to the resource for the research programs** and address (a) the impact of the resource on the advancement of the research programs of current and projected users and, when applicable, on the dissemination and use of the generated knowledge in the supported area(s) of research; (b) the consequence of the loss of access to the resource on the users' research programs.

4. Comment on the **merit of the research programs that rely on access to the resource and excellence of the user community** as demonstrated by (a) the quality, significance and pertinence of ongoing research programs of the users, in the case of experimental resources; (b) the quality, pertinence and impact of the past (if applicable), current and planned scientific activities, and significance of the research themes to the related communities, in the case of thematic resources; (c) the excellence of the users and, in the case of thematic resources, the excellence of activity organizers and users, and their level of commitment to the activities within the resource; (d) the scientific (knowledge and technology) return on the investment in the resource.

5. Comment on the **demonstrated need for support through an MRS grant** and address (a) demonstrated need for, and effectiveness of, support through an MRS grant as opposed to other NSERC grants and contributions from other sources; (b) the nature and extent of the commitment and support from universities and other organizations; (c) the justification of the requested funds from NSERC; (d) the proposed sharing of costs among NSERC, universities and other sources, including user fees (if applicable); (e) the rationale for the proposed user fees (if applicable).

6. Comment on the **management of the resource** and discuss (a) the effectiveness of the management structure; (b) the administration and allocation of access to the resource to different users (internal and external, from universities, government or industry); (c) the plan and budget for maintenance and operation of the resource; (d) the plan of the resource to keep abreast of scientific and technical advances, as well as to sustain well coordinated and leading-edge research activities.

7. Comment on the **contribution of the resource to the training of highly qualified personnel** and discuss (a) the importance of the resource for training, including unique training opportunities offered by the resource; (b) the extent and excellence of training; (c) the opportunity for hands-on training.

8. Comment on the **Synergy** that characterizes the resource. Synergy, in this case, is considered to be the extent to which a grouping of equipment, staff, or participants enhances the value and capability of a resource and enables researchers to obtain results or carry out studies that would otherwise be very difficult or impossible.

9. Other comments