

Canada Biomedical Research Fund and Biosciences Research Infrastructure Fund (CBRF – BRIF Stage 2)

Guidelines for Scientific
and Technical Review

September 2023

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Who should use these guidelines?

These guidelines are for members of the Scientific and Technical Review Committees assessing proposals for stage 2 of the integrated Canada Biomedical Research Fund and Biosciences Research Infrastructure Fund (CBRF – BRIF Stage 2).



A word of thanks

The Canada Foundation for Innovation (CFI) and the Tri-agency Institutional Programs Secretariat (TIPS) housed at the Social Sciences and Humanities Research Council (SSHRC) would like to thank you for agreeing to participate in the review process for the 2023 competition of the CBRF – BRIF Stage 2. The review process relies on the dedicated people who generously lend their time and expertise to its success. The CFI, TIPS and Canada's research community greatly appreciate your efforts.

What you need to know about this competition

Description

In alignment with [Canada's Biomanufacturing and Life Sciences Strategy](#) (the Strategy), the [Canada Biomedical Research Fund and Biosciences Research Infrastructure Fund](#) (CBRF – BRIF Stage 2) will help ensure Canada is prepared for future pandemics by increasing domestic capacity through investments and partnerships across the academic, public, private and non-profit sectors to produce life-saving vaccines and therapeutics.

The CBRF and BRIF are based on an ecosystem approach, designed to build on existing assets and infrastructure, and to forge partnerships across multiple sectors, including industry and government research facilities. To maximize impact and ensure investments complement and reinforce each other, the programs feature a two-stage, integrated competitive process, co-led by the Canada Foundation for Innovation (CFI) and the Tri-agency Institutional Programs Secretariat (TIPS) housed at the Social Sciences and Humanities Research Council (SSHRC):

- **Stage 1** (competition closed): selection of [research hubs](#).
- **Stage 2** (current stage): open national call for eligible institutions to submit partnered proposals for high risk and applied research, talent development and research infrastructure funding. Each proposal must be aligned with one of the hubs' priorities, vision, and program of research, support pandemic preparedness and respond to emerging health threats.

Strategic objectives

Submitted proposals should be aligned with the following CBRF – BRIF strategic objectives:

- Increase specialized infrastructure and capacity for multidisciplinary applied research
- Support training and development to expand the pipeline of skilled research and talent
- Accelerate the transition of promising research into commercially viable products and processes.

Only proposals aligned with the [Strategy](#), [research hubs](#) funded during Stage 1 of the competition, the above objectives and proposing contributions toward pandemic preparedness will be considered for funding.

Selection process

Figure 1: The CBRF – BRIF Stage 2 review process



The selection process is divided into four steps (Figure 1):

- **Step 1 (September 2023) – Administrative review:** The program undertakes an administrative review of all materials at all application stages to verify eligibility requirements and application guidelines have been met. Applications that do not meet the requirements are withdrawn from the competition.
- **Step 2 (November 2023) – Scientific and Technical Review Committee (STRC)¹:** The STRC evaluates the scientific and technical merit of the proposals using the [relevant scientific and technical selection criteria](#). (See [Scientific and technical review](#)).
- **Stage 3 (February 2024) – Strategic Review Committee (SRC):** The SRC will assess proposals' alignment with the strategic objectives of the funding opportunity and with the priorities of the Strategy. The SRC will ultimately recommend a portfolio of proposals that will best support the Strategy and benefit Canada.
- **Stage 4 (March 2024) – Final approval of awards by the TIPS Steering Committee and the CFI Board of Directors:** The recommendations from the SRC are shared with the Deputy Heads Steering Committee for review and submitted for approval to the Tri-agency Institutional Programs Secretariat (TIPS) Steering Committee and the CFI's Board of Directors. The TIPS Steering Committee approves the final award decisions for the research and talent development components and the CFI's Board of Directors approves the final award decisions for research infrastructure components.

1 Parallel to the STRC and in collaboration with the security agencies, proposals will be reviewed on the grounds of national security (see [Additional program considerations](#)). Proposals may be withdrawn from the competition or awards refused if this security review determines that the proposal or associated partner(s) pose an unacceptable or unmitigable risk.

Scientific and technical review

Committee composition and membership

- Scientific and Technical Review Committee will be convened for each hub.
- Each committee will be composed of 8 to 12 committee members and a Chair.
- More than one committee may be convened for a given hub if:
 - The breadth of expertise required to properly assess the proposals cannot be accommodated
 - The workload cannot be accommodated by a single committee
 - The creation of a separate committee is warranted because of special circumstances (e.g., for biosecurity risk mitigation, certain infrastructure components may need to be assessed and discussed exclusively by Canadian reviewers).
- If multiple committees per hub are required, program staff will determine the distribution of components between committees, ensuring that:
 - When possible, proposals will be grouped by subject matter to ensure that each committee has the appropriate expertise to evaluate the scientific and technical areas of the components assigned
 - When possible, linked proposals will be assigned to the same committee.
- Where possible, committee membership will be:
 - Representative of all sectors including academia, industry and the not-for-profit and public sectors
 - Geographically diverse
 - Include experts who identify as members of underrepresented groups including, but not limited to, Indigenous Peoples (First Nations, Inuit and Métis); persons with disabilities; members of visible minorities or racialized groups; and members of LGBTQ2+ communities, and/or at the intersection of these groups.

Conflicts of interest

- In addition to the Tri-Agency [Conflict of Interest and Confidentiality Agreement for Review Committee Members, External Reviewers, and Observers](#):
 - An individual involved in any proposal in the current competition will not be allowed to participate in any of the committees.
 - A committee member who is affiliated with one or more institutions or organizations involved in a proposal will not be allowed to review any component of this proposal but may review other proposals assigned to the committee.

Rating scale

Reviewers will use a seven-point rating scale to rate each selection criterion. Reviewers' ratings must be based on the [criteria descriptions](#) and supported by the proposal's strengths and weaknesses. Based on the [full application instructions](#), the applicant is expected to provide sufficient and appropriate information to enable members to assess their application. Reviewers are encouraged to use the full range of ratings to assess proposals, both in their preliminary assessment and in reaching a consensus rating on each selection criterion (see [Scientific and Technical Review Committee roles and responsibilities](#)).

The rating scale and criteria descriptions are provided in [Appendix 2: Selection criteria and ratings matrices](#).

Selection criteria

Proposals can include one or more of the following components:

- **Research:** partnered and applied research in the biomanufacturing and life sciences sector to accelerate the translation of discoveries into products and services to strengthen the sector
- **Talent development*:** partnered talent development to provide skills and training needed to drive innovation and growth in Canada's biomanufacturing industry
- **Research infrastructure*:** to support Canada's biosciences research needs.

* Each research infrastructure or talent development component must directly support one or more research components submitted to this competition.

The STRCs assess applications based on the relevant criteria per the component composition of the proposal.

- Six selection criteria apply to **research and talent development²** components:
 - **Relevance:** extent to which the component's development component's objectives and design meet the hub's vision, priorities, and program of research
 - **Effectiveness:** extent to which the component is expected to achieve its objectives
 - **Efficiency:** extent to which the component is likely to deliver results in an efficient and timely manner
 - **Impact:** extent to which the component is expected to generate significant benefits
 - **Contribution of partners:** extent to which partners concretely contribute to the component
 - **Equity, diversity and inclusion (EDI) and early career researchers (ECRs):** extent to which commitment to EDI and ECRs is demonstrated in the component.
- And three selection criteria for research infrastructure components:
 - **Need:** extent to which the infrastructure component efficiently supports research component(s) submitted by institutions
 - **Building capacity:** extent to which the infrastructure component enhances the research capacity of the institution(s) to support the hub's vision, priorities, and program of research
 - **Sustainability:** extent to which the infrastructure component will be optimally used and maintained over its useful life.

For each selection criterion the reviewer is asked to consider the relevant elements, which may include a few, several or all elements outlined in the [selection criteria descriptions](#) and [ratings matrices](#) which are also provided in [Appendix 2: Selection criteria and ratings matrices](#). The descriptions and matrices are intended to be used as a guide and are not exhaustive.

A proposal does not have to be rated "Exceptional" against all elements to receive an "Exceptional" rating for the criterion overall. It is left to the discretion of the reviewer to balance assessments of individual elements and to provide an overall rating per criterion.

2 The sub-criteria for each criterion differ based on the component (research or talent development).

Meritorious components

Only components that receive a rating of “good” or above for all relevant scientific and technical selection criteria will be deemed meritorious and will be considered for the next level of review.

Figure 2: Selection of meritorious components

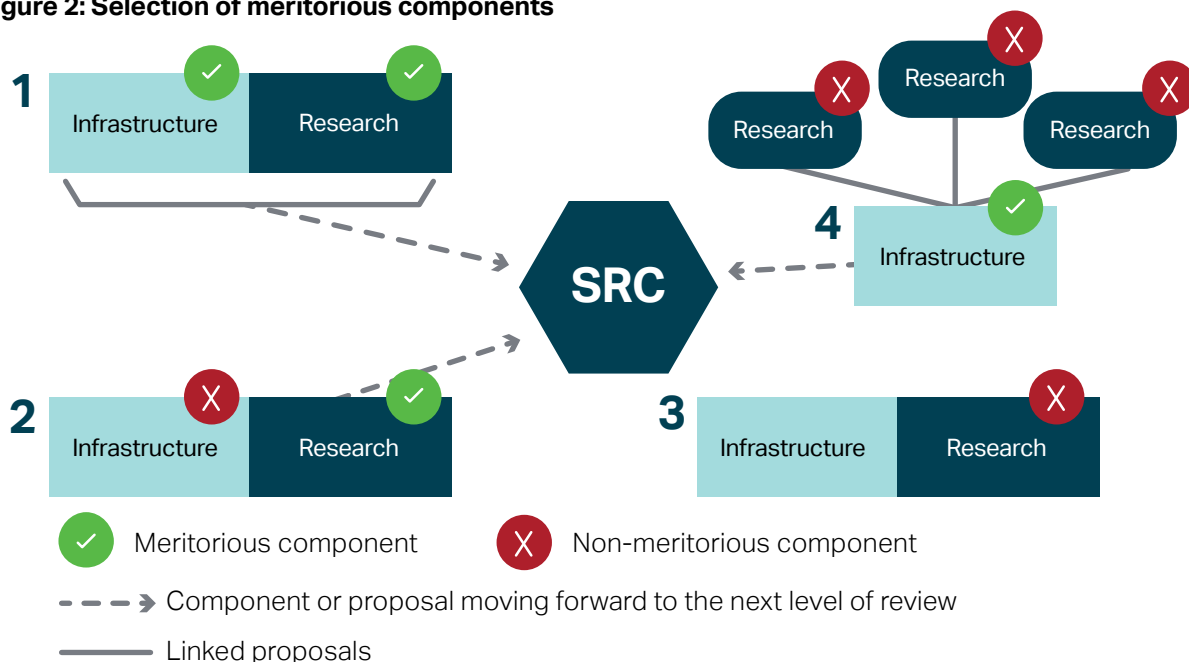


Figure 2 shows how four different proposal types would move forward to the next level of review by the Strategic Review Committee (SRC), or not, based on the “meritorious” nature of the components and on whether the proposed activities support one or more meritorious research components.

The four proposal types in Figure 2 are:

- Proposal with meritorious infrastructure and research components:** The proposal will proceed to the SRC because both components are meritorious and the infrastructure component is supporting meritorious research activities.
- Proposal with a meritorious research component but a non-meritorious infrastructure component:** The proposal’s research component will proceed to the SRC because it is meritorious. The infrastructure component, however, will not proceed to the SRC. Though the infrastructure component is supporting a meritorious research component, the infrastructure component itself is not meritorious based on the scientific and technical review.
- Proposal with a non-meritorious research and infrastructure component:** Neither component will proceed to the SRC. The research component will not proceed because it is not meritorious and the infrastructure component will not proceed because it is not supporting a meritorious research component.
- A **meritorious infrastructure component** may proceed to the SRC without supporting meritorious research components when **it supports (is linked to) multiple research components (regardless of their meritorious nature)**. This will allow the SRC to consider the long-term benefits of foundational, large-scale infrastructure for maintaining and building Canada’s biomanufacturing capacity.

For illustrative purposes, only infrastructure and research components are presented in examples 1 to 3. However, the same principles apply to talent development components because they must also support research activities. Example 4 applies only to infrastructure components.

How to conduct the review

Tools

The [Convergence Portal](#) is used to access documents and information needed for your review. All information on how to access and enter your preliminary ratings in the Convergence Portal will be provided by email following the application deadline and completion of review assignments by program staff.

Once you have access, you will find the following documents in the Convergence Portal:

- Full Application, which includes:
 - Application details submitted on the Convergence Portal
 - Supporting documents
 - Scientific and technical summary
 - Detailed description (per component) including the proposal; anticipated outcomes; considerations of equity, diversity and inclusion, and early career researchers; management plans; budget justification; and literature references
 - Detailed budget, if applicable
 - Research infrastructure floor plans, if applicable
 - Team biosketch
 - Partner contributions.
- Hub endorsement report.

A preliminary report template will also be provided to help your review.

Scientific and Technical Review Committee roles and responsibilities

Chairs: The chair is responsible for leading the STRC meeting, ensuring that it runs effectively and according to schedule and that the committee:

- Considers the views of all members
- Reviews all proposals fairly, consistently and according to the guidelines in this document
- Discusses each proposal in sufficient detail
- Achieves a consensus rating for each assessment criterion
- Sufficiently substantiates the ratings for the committee report
- Validates the STRC report for each proposal and ensures it accurately reflects the meeting discussion.

Members: STRC members have specific expertise in various aspects of the proposals their committee will review. Each member will be assigned a subset of proposals to review according to the selection criteria (see [Appendix 2: Selection criteria and ratings matrices](#)). Reviewers are required to submit preliminary reviews on the [Convergence Portal](#) for each proposal assigned to them. Each proposal will be assigned to at least three reviewers. Members are encouraged to read all proposals to fully participate in the meeting. After discussing each proposal, members work to reach a consensus rating for each selection criterion.

Staff: CFI and TIPS staff members attend the STRC meeting to assist the chair, take notes and

clarify policies and processes as necessary. Staff members will be responsible for drafting the STRC consensus report for each proposal, seeking approval of the draft by the chair and finalizing the report.

Observers: A representative from Innovation, Science and Economic Development Canada (ISED) may be invited to observe STRC meetings. Additional program staff may observe committee meetings for training purposes. When significant matching funds are requested as part of an infrastructure application, representatives of provincial or territorial authorities, or other funding partners, may be invited to observe STRC meetings, to support their own review process. Observers do not interact with the committee and attend meetings only for the relevant discussions.

Meeting logistics

STRCs will meet by videoconference and the meetings will be recorded to facilitate report writing. Recordings will be destroyed after the final STRC consensus report is approved. Given the number of proposals the committee will review, the meetings will take place over multiple sessions (a maximum of four five-hour sessions). Instructions for connecting to the videoconferencing platform will be provided before the meetings. A template meeting agenda is also in [Appendix 1: Typical meeting agenda](#).

Table 1: Summary of key activities

Timing	Activities
Before the meeting	<p>As a committee member, you will:</p> <ul style="list-style-type: none"> • Attend a briefing session to go over the review material and discuss the review process • Accept the invitation to participate in the committee sent by the Convergence Portal. If you do not already have a profile on the Convergence Portal, you will be prompted to create one • Under the “Ability to Review” tab on your personal dashboard, declare any conflict of interest for each proposal listed • For proposals you are not in conflict with, access the review materials (Application and Hub endorsement report) under the “Committee Assignments” tab of your dashboard • Complete the recommended Bias in Peer Review training module (see Bias in merit review) • Evaluate the proposal(s) assigned to you, against the selection criteria • Provide your preliminary assessment in the Convergence Portal at least three days before the meetings.
At the meeting	<p>The Chair guides the committee in reviewing each proposal component³ in turn. Reviewers present highlights of their preliminary assessment with supporting rationale.</p> <p>The committee discusses the strengths and weaknesses for each selection criterion to reach consensus on a rating and a funding recommendation. The proposal’s strengths and weaknesses identified by the committee should substantiate the overall rating and comments on the budget. This discussion informs the STRC report.</p>
After the meeting	<p>Program staff draft the STRC report for each proposal.³ The chair reviews and approves the reports.</p>

3 When a proposal includes a research component as well as an infrastructure and/or talent development component, if the research component is non-meritorious, the infrastructure or talent development component will **not be reviewed** and the **report for this component will not be drafted**. This does not apply to proposals that support (are linked to) multiple research components.

Meeting process

Each proposal will be assigned to at least three reviewers for review. Reviewers are expected to be the primary contributors to start the discussion for each assigned proposal. Members who are not reviewers but who have familiarized themselves with the proposal or who have specific expertise in the area are encouraged to participate in the discussions, provided they are not in conflict with the proposal. The committee will reach a consensus rating for each related selection criterion. In the unlikely event that a consensus rating cannot be reached, the median rating of each reviewer will be used to represent the consensus. This will be noted in the committee report. A median will be achieved by converting each of the ratings to numerical scores of 1 to 7. If the score is a fraction, the rating will be rounded down to the nearest whole number. For example, a 5.5 score would become a 5, or “very good.”

Wherever possible, linked proposals will be reviewed by the same committee and reviewers. If linked proposals cannot be reviewed by the same reviewers, the scientific and technical summary of the linked proposals will be shared to provide the necessary context.

Program staff will capture the key points of discussion leading to consensus to inform the STRC committee report. Only the consensus ratings and summarized comments will be provided in the report. Comments will not be attributed to a single reviewer. Following the meeting, the committee chair will be asked to endorse the committee reports drafted by program staff. This consensus report will then be forwarded to the Strategic Review Committee (SRC) to inform their deliberations and to applicants after the funding decisions are released.

Budget recommendations

During the STRC meetings, committees not only determine which proposals are meritorious, but also review the budget request to determine whether the requested amount is appropriate for the project. Committees should use the principle of minimum essential funding to guide their discussions of budgets.

While assessing the criteria of Efficiency (research and talent development components) and Need (infrastructure components), reviewers will be asked to assess the budget’s appropriateness. The committee should assess whether, overall, the proposed budget is reasonable, well-justified and appropriate for carrying out the proposed activities. Weakness in the budget should be reflected in the Efficiency or Need score. The committee may consider the following (this list is not exhaustive):

- Does the amount requested seem reasonable, appropriate and justified, particularly for infrastructure upgrades and equipment purchases?
- Are there any items that could be cut from the budget or item amounts that could be reduced?
- Does the activity appear feasible given the amount requested?

In their reports to the SRC, STRC committees can recommend budget reductions or modifications, as applicable, where they determine that the request is inadequately justified and/or not appropriate. For example, committees can recommend the removal of infrastructure or budget line items, removal of budget components or reduction of the budget. The SRC will make final funding recommendations based on the STRC’s suggested modifications to the proposed budget and the available budget envelopes for the competition.

Principles of merit review

The merit-review process is governed by the underlying principles of integrity and confidentiality to ensure continued trust and confidence of the research community, the government and the public. All members of the Scientific and Technical Review Committee must follow our [Conflict of Interest and Confidentiality Agreement](#).

Integrity

We expect reviewers to maintain the highest standards of ethics and integrity. This means that personal interests must never influence, or be seen to influence, the outcome. You are appointed as an individual, not as an advocate or representative of your discipline(s) or organization. If you have a conflict of interest, you should declare it as quickly as possible. We will determine if the conflict of interest is manageable or if we must withdraw your invitation to be a reviewer.

Confidentiality

Our review process is confidential. When you agree to review, you are bound by our [confidentiality agreement](#). This means that everything we send you is confidential and must be treated as such at all times. You must not discuss or share proposals with anyone. If you do not think you have the expertise to provide a useful review without discussing it with a colleague, you should decline the invitation.

Review documents contain personal information as well as information that, if disclosed without authorization, could reasonably be expected to cause serious injury (such as prejudicial treatment or loss of reputation or competitive advantage) to an individual, organization or government. Therefore, these documents are subject to the [Privacy Act](#), the [Access to Information Act](#) and the [Policy on Government Security](#). You must follow protocols to ensure that information contained in applications, internal and external reviews, and panel discussions remains strictly confidential. Improper or unauthorized collection, use, disclosure, retention and/or disposal of this information can result in a privacy breach. Refer to the [Guide on Handling Documents Used in Peer Review](#) for further details.

Personal information is any information about an identifiable individual. Based on the [Privacy Act](#), personal information provided by applicants must be used only for assessing applications, making funding decisions and describing applicants for related uses at the time that their personal information is collected. Reviewers are reminded that the use or disclosure of this information for any other purpose is illegal. It is important that you adhere strictly to the guidelines set out in the [confidentiality agreement](#).

Bias in merit review

Merit review is subjective by nature. Bias can be unconscious and show up in several ways. It could be based on:

- A school of thought or ideas about fundamental versus applied (or translational) research, areas of research, subdisciplines or approaches (including emerging ones)
- The size or reputation of a participating institution
- The age, language, identity factors or gender of the applicant.

Committee members must complete the [Bias in Peer Review training module](#) (or equivalent) developed by the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council of Canada (NSERC) and the Social Sciences and Humanities Research Council (SSHRC). This online module promotes understanding of bias, how it can affect merit review and ways to mitigate bias.

[This practical guide for research evaluators](#) presenting the [San Francisco Declaration on Research Assessment](#) is an optional resource for reviewers.

Official languages

TIPS and the CFI offer their services in both of Canada's official languages — French and English. Committees must ensure that all proposals in either official language receive a full and detailed review. If you have been assigned a proposal in a language that you cannot understand, contact us immediately and we will reassign the proposal to another reviewer.

Responsible conduct of research

Canada's federal research funding agencies — CIHR, NSERC, SSHRC and the Canada Foundation for Innovation — are committed to fostering and maintaining an environment that supports and promotes the responsible conduct of research. The [Tri-Agency Framework: Responsible Conduct of Research](#) sets out the responsibilities and corresponding policies for researchers, institutions, and the agencies that, together, help support and promote a positive research environment.

Canadian Human Rights Act

The activities of CIHR, NSERC, SSHRC and CFI are subject to the [Canadian Human Rights Act](#). The purpose of the Act is to extend the laws in Canada to give effect to the principle that all individuals should have opportunity equal with other individuals to make for themselves the lives that they are able and wish to have. They should also have their needs accommodated, consistent with their duties and obligations as members of society, without being hindered in or prevented from doing so by discriminatory practices based on race, national or ethnic origin, colour, religion, age, sex, sexual orientation, gender identity or expression, marital status, family status, genetic characteristics, disability or conviction for an offence for which a pardon has been granted or in respect of which a record suspension has been ordered.

Appendix 1: Typical meeting agenda

- This is a sample agenda representing expected STRC activities during a single meeting.
- The number of sessions per day may vary depending on the type of proposals to be reviewed.
- Reviewers will be provided with a detailed agenda for their committee meetings.
- The meetings will be virtual, and reviewers will provide preliminary scores and comments before the meeting (using the Convergence Portal).

11:00 a.m.	The chair introduces committee members
11:10 a.m.	Program staff provide an overview of the STRC process
11:20 a.m. – 12:20 p.m.	<p>Session 1: Discussion of the relevant component criteria</p> <ul style="list-style-type: none"> • The lead reviewer presents an overview of the proposal. • For each component's criterion (10 min. per criterion): <ul style="list-style-type: none"> • Based on the ratings matrices, reviewers present their preliminary assessments. When assessing the Efficiency (research and talent development components) and Need (infrastructure components) criteria, discussions should include any recommended modifications to the requested budget. • The chair may invite other members to provide additional comments. • The chair summarizes the discussion focusing on points where there might be disagreement and invites members to share their proposed consensus rating and funding recommendation based on the discussion. • The chair summarizes the result and moves discussion forward to the next criterion. • Overview and confirmation of the final ratings and comments for the component
12:20 – 12:25 p.m.	Break – 5 min.
12:25 – 13:25 p.m.	Session 2 – see session 1
13:25 – 13:45 p.m.	Break – 20 min.
13:45 – 14:45 p.m.	Session 3 – see session 1
14:45 – 14:50 p.m.	Break – 5 min.
14:50 – 15:50 p.m.	<p>Session 4 – see session 1</p> <p>Wrap-up and process discussion</p> <ul style="list-style-type: none"> • STRC members review the overall outcome of their review to confirm that each proposal received a fair assessment and that the ratings reflect the assessment. • Committee members provide feedback to the staff on any aspects of the competition and review process.
15:50 – 16:00 p.m.	
16:00 p.m.	Meeting adjournment

Appendix 2: Selection criteria and ratings matrices

For each selection criterion, the reviewer is asked to consider the relevant elements, which may include a few, several or all elements outlined in the matrix. Like the selection criteria descriptions, the ratings descriptions are not meant to be exhaustive. The matrices are intended to be used as a guide.

To assess proposals, use the rating scale shown below.

Figure 3: Rating scale

Exceptional	Excellent	Very good	Good	Fair	Inferior	Poor
Described	Between exceptional and very good	Described	Between very good and fair	Described	Between fail and poor	Described

The ratings matrices describe four ratings: Exceptional, Very Good, Fair and Poor. However, the committee members will use the seven-point rating scale (Figure 3) in their assessments, selecting ratings that fall between the four described.

CBRF – BRIF terms and definitions:

For the CBRF – BRIF program, **highly qualified personnel (HQP)** refers to students, research technicians, postdoctoral researchers, research associates and other technical or research personnel.

Team refers to the individuals who are participating in the application (e.g., project director, co-director, team member(s)).

An early career researcher (ECR) is a researcher within five years from the start date of their first research-related appointment, minus the length of any eligible delays in research (e.g., illness, maternity, parental), as of the first day of the month in which the competition is launched.

In-kind contributions for research and talent development components include eligible nonmonetary resources that partners or administering institutions provide to support the project. These contributions could be in the form of cash-equivalent goods or services that, if not donated, would have to be purchased with project funds. In-kind contributions could also include the time of individuals within partner organizations (e.g., experts in a specific area) spent providing direction and participating in the project. In some cases, partners may provide specialized skills and advice or access to special equipment, space, data sets, etc.

Research criteria

1. Relevance: extent to which the research component’s objectives and design meet the hub’s vision, priorities, and program of research.

Partnered, applied research that supports the hub’s vision, priorities, and program of research: The research objectives and design are aligned with the endorsing hub’s vision, priorities, and program of research.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The research objectives and design are significantly aligned with the endorsing hub’s vision, priorities, and program of research.	The research objectives and design are aligned with the endorsing hub’s vision, priorities, and program of research.	The research objectives and design are somewhat aligned with the endorsing hub’s vision, priorities and program of research.	There is limited alignment between the research objectives and the endorsing hub’s vision, priorities and program of research.

2. Effectiveness: extent to which the research component is expected to achieve its objectives.

Scientific excellence of the research activities: The excellence of the research activities is demonstrated by positioning them within the current state of knowledge in the field, both in Canada and internationally.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The research activities are comprehensively positioned within the current landscape of the field. The research activities will enable a competitive and innovative research program.	The research activities are well positioned within the current landscape of the field. The research activities will enable a competitive research program.	The research activities are insufficiently positioned within the current landscape of the field. The research activities will enable a generic research program.	The research activities are poorly positioned within the current landscape of the field. The research activities will enable a limited research program.

Appropriateness and feasibility of the research activities: The research activities are feasible and are likely to result in the expected outcomes. There is a description of methodological limitations and plans to mitigate limitations, as appropriate. The methodological approach(es) and design of the research component are well suited to the objectives. The approach(es) include sex- and gender-based analysis (SGBA) and/or gender-based analysis plus (GBA+) and demonstrate active engagement and collaboration with First Nations, Inuit and Métis communities, as appropriate. Infrastructure and tools are appropriate for carrying out the research activities. Materials, processes and procedures used and developed are in accordance with established standards such as Good Laboratory Practices and Good Manufacturing Practices, as applicable.

Ratings matrix:

Exceptional	Very good	Fair	Poor
<p>All described activities are feasible, and the methodological approach(es) are highly appropriate to the expected outcomes.</p> <p>All methodological limitations are addressed, and sound plans to mitigate these limitations are included.</p> <p>Sex- and gender-based analysis (SGBA) and/or gender-based analysis plus (GBA+) are fully integrated into the approach(es).</p> <p>The infrastructure and tools described are highly appropriate to the research activities.</p>	<p>Most described activities are feasible, and the methodological approach(es) are appropriate to the expected outcomes.</p> <p>Most methodological limitations are addressed, and sound plans to mitigate these limitations are included.</p> <p>Sex- and gender-based analysis (SGBA) and/or gender-based analysis plus (GBA+) are integrated into the approach(es).</p> <p>The infrastructure and tools described are appropriate to the research activities.</p>	<p>Some described activities are feasible, and the methodological approach(es) are somewhat appropriate to the expected outcomes.</p> <p>Some methodological limitations are addressed and/or plans to mitigate limitations are basic.</p> <p>Sex- and gender-based analysis (SGBA) and/or gender-based analysis plus (GBA+) are partially integrated into the approach(es).</p> <p>The infrastructure and tools described are somewhat appropriate to the research activities.</p>	<p>Most described activities are not feasible and/or the methodological approach(es) are inappropriate to the expected outcomes.</p> <p>Methodological limitations are inadequately addressed and/or plans to mitigate any limitations are insufficient.</p> <p>Sex- and gender-based analysis (SGBA) and/or gender-based analysis plus (GBA+) are not integrated into the approach(es).</p> <p>The infrastructure and tools described are inappropriate or inadequate to the research activities.</p>

Necessary expertise to deliver on the component's objectives: The research team has the breadth and depth of expertise, perspectives, and capacity, from all relevant sectors and disciplines, to conduct the research activities and meet the objectives of the research component.

Ratings matrix:

Exceptional	Very good	Fair	Poor
<p>The research team has significant expertise that includes perspectives and capacity from all relevant sectors and disciplines.</p>	<p>The research team has the appropriate expertise that includes perspectives and capacity from all relevant sectors and disciplines.</p>	<p>The research team's expertise is somewhat appropriate and/or only includes perspectives and capacity from some relevant sectors and disciplines.</p>	<p>The research team has limited expertise and/or only includes perspectives and capacity from a limited number of relevant sectors and disciplines.</p>

3. Efficiency: extent to which the research component is likely to deliver results in an efficient and timely manner.

Appropriateness of the scope and timeline: The scope of the research activities is appropriate to the duration of the funding as well as the described methodological approaches, design and objectives. The timeline considers infrastructure availability, including the time necessary for infrastructure acquisitions, construction, or licensing, as appropriate.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The scope and timeline of the research activities are highly appropriate for the funding duration and are sufficient to conduct the described activities.	The scope and timeline of research activities are appropriate for the funding duration and are sufficient to conduct the described activities.	The scope and timeline of research activities are somewhat appropriate for the funding duration and/or are only somewhat sufficient to conduct the described activities.	The scope and timeline of research activities are inappropriate for the funding duration and/or are insufficient to conduct the described activities.

Appropriateness of the budget: The budget is appropriate to undertake and complete the research activities outlined.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The budget is comprehensive and highly appropriate for the research activities.	The budget is appropriate for the research activities.	The budget is somewhat appropriate for the research activities.	The budget is inappropriate for the research activities.

Effectiveness of the oversight structure(s) and plan(s): The oversight structure(s) and plan(s) reflect the objectives, breadth and complexity of the research component. There is evidence that the governance and/or administrative plan(s) will guide the research activities. Plans should include:

- Appropriate methods and indicators for monitoring progress and assessing outcomes.
- A description of the specific roles and expertise of members involved in the governance structure.
- Data management considerations, as appropriate.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The oversight structure(s) and/or plan(s) are highly appropriate and will enable effective oversight of the research activities' progress.	The oversight structure(s) and/or plan(s) are appropriate and will enable effective oversight of the research activities' progress.	The oversight structure(s) and/or plan(s) are somewhat appropriate and will enable somewhat effective oversight of the research activities' progress.	The oversight structure(s) and/or plan(s) are inappropriate and/or will not enable effective oversight of the research activities' progress.

4. Impact: extent to which the research component is expected to generate significant benefits.

Partnered and applied research that will support the biomanufacturing and life sciences sector:

The results of the research activities provide significant social, economic and/or health impact(s) in support of pandemic readiness and response to emerging health threats by capitalizing on known strengths and/or addressing key research gaps to benefit Canada’s biomanufacturing and life sciences sector.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The research results will provide significant benefits to Canada’s pandemic preparedness, emerging health threats and/or biomanufacturing and life sciences sector.	Research results will benefit Canada’s pandemic preparedness, emerging health threats and/or the biomanufacturing and life sciences sector.	Research results will provide some benefits to Canada’s pandemic preparedness, emerging health threats and/or biomanufacturing and life sciences sector.	Research results will provide limited benefits to Canada’s pandemic preparedness, emerging health threats and/or biomanufacturing and life sciences sector.

Commercialization, technology transfer and/or knowledge mobilization plans are in place:

The component describes a strategy for commercialization, technology transfer and/or knowledge mobilization, as appropriate. The strategy is feasible, considers the available resources, engagement of end-users and intellectual property protection, where appropriate.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The approach is feasible and includes significant engagement of end-users and consideration of intellectual property protection, where appropriate.	The approach is feasible and includes engagement of end-users and consideration of intellectual property protection, where appropriate.	The approach is somewhat feasible and includes limited engagement of end-users and some consideration of intellectual property protection, where appropriate.	The approach is not feasible and/or does not adequately include engagement of end-users and/or consideration of intellectual property protection.

Support for training and mentoring of HQP: The research activities support the training and mentoring of HQP and will provide opportunities for their meaningful contribution.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The research activities fully support the training and mentoring of HQP and will provide a broad variety of opportunities for their meaningful contribution.	The research activities support the training and mentoring of HQP and will provide several opportunities for their meaningful contribution.	The research activities somewhat support the training and mentoring of HQP and will provide some opportunities for their meaningful contribution.	The research activities provide limited support for the training and mentoring of HQP and will provide limited opportunities for their meaningful contribution.

5. Contribution of partners: extent to which partners concretely contribute to the research component.

Appropriateness of partners: The component includes partners and collaborators from various disciplines and sectors (academic, public, private, industry and not-for-profit), as appropriate. The partners and collaborators are relevant to the research activities and will support innovation, mobilize results, and accelerate the translation of promising discoveries into products and services relevant to the biomanufacturing and life sciences sector.

Ratings matrix:

Exceptional	Very good	Fair	Poor
Partners from all relevant disciplines and sectors are included. All partners and collaborators are highly appropriate to the activities and will support innovation, mobilize results, and accelerate the translation of promising discoveries into products and services.	Partners from all relevant disciplines and sectors are included. Most partners and collaborators are appropriate to the activities and will support innovation, mobilize results, and accelerate the translation of promising discoveries into products and services.	Partners from some relevant disciplines and sectors are included. The partners and collaborators are somewhat appropriate to the activities and will somewhat support innovation, mobilize results and/or will not accelerate the translation of promising discoveries into products and services.	Few partners from relevant disciplines and sectors are included. How they will support innovation and mobilize results is unclear.

Contribution of partners: Partners have been involved in the design of the research component and are committed to facilitating, supporting, and furthering its objectives. Partner engagement and commitment are demonstrated through participation in the research activities, financial and/or in-kind contributions.

Ratings matrix:

Exceptional	Very good	Fair	Poor
Partners were extensively involved in the creation and design of the research component and are strongly committed to supporting its objectives.	Partners were involved in the creation and design of the research component and are committed to supporting its objectives.	Partners were somewhat involved in the creation and design of the research component and/or are somewhat committed to supporting its objectives.	Partners were minimally involved in the creation and design of the research component and/or there is limited commitment to supporting its objectives.

6. Equity, diversity, and inclusion (EDI) and early career researchers (ECRs): extent to which commitment to EDI and ECRs is demonstrated in the research component.

Actions to remove barriers and ensure opportunities for the recruitment and retention of individuals from underrepresented groups and ECRs: The approach describes ongoing and rigorous actions to identify, address and mitigate systemic barriers that may result in individuals from underrepresented groups (including but not limited to racialized groups, Indigenous Peoples, persons with disabilities, women, and individuals from 2SLGBTQIA+ communities) having unequal access to or being excluded from participating in research activities. The approach describes and addresses challenges or systemic barriers that could prevent equitable participation within the research environment. The approach includes actions to meaningfully include underrepresented groups and ECRs. Principles of equity and diversity were considered in the team composition.

Ratings matrix:

Exceptional	Very good	Fair	Poor
<p>There is in-depth understanding of EDI considerations/systemic barriers with respect to participation in the research activities.</p> <p>More than one concrete practice related to each of the described barriers is identified. Implementation of the practices and the expected impact on EDI are explained.</p> <p>ECRs are included in the team and are integrated in a meaningful way.</p>	<p>There is strong understanding of EDI considerations/systemic barriers with respect to participation in the research activities.</p> <p>Many concrete practices related to described barriers are identified. Implementation of the practices and the expected impact on EDI are explained.</p> <p>ECRs are included in the team and are integrated in a meaningful way.</p>	<p>There is some understanding of EDI considerations/systemic barriers with respect to participation in the research activities.</p> <p>Some concrete practices are identified without relating them to described barriers or making clear how they will be implemented. The impact of described practices is not evident.</p> <p>ECRs are included in the team but are not fully integrated.</p>	<p>There is limited understanding of EDI considerations/systemic barriers with respect to participation in the research activities.</p> <p>Concrete practices are not identified or don't relate to described barriers.</p> <p>Meaningful integration of ECRs is not demonstrated.</p>

Talent development criteria

1. Relevance: Extent to which the talent development component's objectives and design meet the hub's vision, priorities and program of research.

Objectives and design support the hub's vision, priorities and program of research: The objectives and design are aligned with the hub's vision, priorities and program of research and there is a clear link between the talent development component and the research component(s) it supports.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The objectives and design are significantly aligned with the endorsing hub's vision, priorities, and program of research. The talent development component effectively supports one or more research components.	The objectives and design are aligned with the endorsing hub's vision, priorities, and program of research. The talent development component sufficiently supports one or more research components.	The objectives and design are somewhat aligned with the endorsing hub's vision, priorities, and program of research. The talent development component somewhat supports one or more research components.	There is limited alignment between the objectives and the endorsing hub's vision, priorities and program of research. The talent development component provides limited support to one or more research components.

2. Effectiveness: Extent to which the talent development component is expected to achieve its objectives.

Appropriateness and feasibility of the activities: The component includes training modules, best practices, guidelines and/or curriculum materials that are feasible and appropriate to the expected outcomes. Infrastructure and tools described are appropriate for carrying out the talent development activities. There is a description of potential limitations and plans to mitigate these limitations, as appropriate.

Ratings matrix:

Exceptional	Very good	Fair	Poor
All described activities are feasible and highly appropriate to the expected outcomes. The infrastructure and tools described are highly appropriate to the talent development activities. All limitations are addressed, and sound plans to mitigate limitations are included.	Most described activities are feasible and appropriate to the expected outcomes. The infrastructure and tools described are appropriate to the talent development activities. Most limitations are addressed, and sound plans to mitigate limitations are included.	Some of the described activities are feasible and somewhat appropriate to the expected outcomes. The infrastructure and tools described are somewhat appropriate to the talent development activities. Some limitations are addressed and/or plans to mitigate limitations are basic .	The described activities are not feasible and/or inappropriate to the expected outcomes. The infrastructure and tools described are inappropriate or inadequate to the talent development activities. Limitations are inadequately addressed and/or plans to mitigate limitations are insufficient.

Necessary expertise to deliver on the component's objectives: The team has the breadth and depth of expertise, perspectives and capacity from all relevant sectors and disciplines, including expertise in training and mentoring, to meet the objectives of the talent development component.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The team has significant expertise that includes perspectives and capacity from all relevant sectors and disciplines.	The team has the appropriate expertise that includes perspectives and capacity from all relevant sectors and disciplines.	The team's expertise is somewhat appropriate and/or includes perspectives and capacity from some relevant sectors and disciplines.	The team has limited expertise and/or only includes perspectives and capacity from a limited number of relevant sectors and disciplines.

3. Efficiency: Extent to which the talent development component is likely to deliver results in an efficient and timely manner

Appropriateness of the scope and timeline: The timeline is appropriate to the duration of the funding and sufficient to conduct the described activities and meet the objectives outlined.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The scope and timeline are highly appropriate for the funding duration and are sufficient to conduct the described activities.	The scope and timeline are appropriate for the funding duration and are sufficient to conduct the described activities.	The scope and timeline are somewhat appropriate for the funding duration and/or are only somewhat sufficient to conduct the described activities.	The scope and timeline are inappropriate for the funding duration and/or are insufficient to conduct the described activities.

Appropriateness of the budget: The budget is appropriate to undertake and complete the outlined talent development activities.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The budget is comprehensive and highly appropriate for the talent development activities.	The budget is appropriate for the talent development activities.	The budget is somewhat appropriate for the talent development activities.	The budget is inappropriate for the talent development activities.

Effectiveness of the oversight structure(s) and plan(s): The described oversight structure(s) and/or administrative plan(s) reflect the objectives, breadth, and complexity of the talent development component. Plans should include:

- appropriate methods and indicators for monitoring progress and assessing outcomes; and
- a description of the specific roles and expertise of governance structure members.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The oversight structure(s) and/or plan(s) are highly appropriate and will enable effective oversight of the research activities' progress.	The oversight structure(s) and/or plan(s) are appropriate and will enable effective oversight of the research activities' progress.	The oversight structure(s) and/or plan(s) are somewhat appropriate and will enable somewhat effective oversight of the research activities' progress.	The oversight structure(s) and/or plan(s) are inappropriate and/or will not enable effective oversight of the research activities' progress.

4. Impact: Extent to which the talent development component is expected to generate significant benefits.

Extent to which the component supports the biomanufacturing and life sciences sector: The talent development activities support pandemic readiness and response to emerging health threats by providing a value-added experience to trainees and HQP. The activities enable the development of skills relevant to the biomanufacturing and life sciences sector, including:

- industry-relevant skills in research, engineering and biomanufacturing;
- training in Good Laboratory Practice and Good Manufacturing Practice laboratories and facilities, where appropriate; and
- training in approaches to advance rigorous and responsible research (e.g., SGBA and/or GBA+, data management, engagement with Indigenous Peoples, ethics, unconscious bias).

Ratings matrix:

Exceptional	Very good	Fair	Poor
The described activities will provide a highly enriching value-added experience to trainees and HQP and will enable the development of a variety of skills relevant to the biomanufacturing and life sciences sector.	The described activities will provide a value-added experience to trainees and HQP and will enable the development of multiple skills relevant to the biomanufacturing and life sciences sector.	The described activities will provide an experience of limited value to trainees and HQP and will somewhat enable the development of skills relevant to the biomanufacturing and life sciences sector.	The described activities are not likely to provide a value-added experience to HQP or enable the development of skills relevant to the biomanufacturing and life sciences sector.

Extent to which the talent development component promotes mobility of HQP and facilitates the transition to careers within and beyond academia: The talent development activities include workshops and conferences, internships with a mentoring component and/or co-op and outreach programs that:

- provide opportunities for HQP to transition to careers within and beyond academia;
- promote and encourage national and, where applicable, international mobility across sectors and disciplines;
- promote interaction of HQP with non-academic sectors (private companies, industry associations, not-for-profit organizations, government departments, etc.), as appropriate; and
- promote links between HQP and prospective employers.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The proposed activities include a variety of highly valuable opportunities that promote mobility of HQP and facilitate transition to careers within and beyond academia.	The proposed activities include several valuable opportunities that promote mobility of HQP and facilitate transition to careers within and beyond academia.	The proposed activities include some opportunities that promote mobility of HQP and facilitate transition to careers within and beyond academia.	The proposed activities include very few opportunities of limited value that promote mobility of HQP and facilitate transition to careers within and beyond academia.

5. Contributions of partners: Extent to which partners concretely contribute to the talent development component.

Appropriateness of partners: The component includes partners and collaborators from various disciplines and sectors (academic, public, private, industry and not-for-profit), as appropriate. The partners and collaborators are appropriate to the talent development activities and will provide enriched training experiences, leading to the development of skills relevant to the biomanufacturing and life sciences sector as well as the supported research component(s).

Ratings matrix:

Exceptional	Very good	Fair	Poor
Partners from all relevant disciplines and sectors are included. The partners and collaborators are highly appropriate to the activities and will provide enriched training experiences.	Partners from most relevant disciplines and sectors are included. The partners and collaborators are appropriate to the activities and will provide enriched training experiences.	Partners from some relevant disciplines and sectors are included. The partners and collaborators are somewhat appropriate to the activities and will provide training experiences.	Few partners from relevant disciplines and sectors are included. Training experiences are limited .

Contribution of partners: Partners have been involved in the design of the talent development component and are committed to facilitating, supporting, and furthering its objectives. Partner engagement and commitment are demonstrated through participation in the talent development activities, financial and/or in-kind contributions.

Ratings matrix:

Exceptional	Very good	Fair	Poor
Partners were extensively involved in the creation and design of the talent development component and are strongly committed to supporting its objectives.	Partners were involved in the creation and design of the talent development component and are committed to supporting its objectives.	Partners were somewhat involved in the creation and design of the talent development component and/or are somewhat committed to supporting its objectives.	Partners were minimally involved in the creation and design of the talent development component and/or there is limited commitment to supporting its objectives.

6. Equity, diversity, and inclusion (EDI) and early career researchers (ECRs): Extent to which commitment to EDI and ECRs is demonstrated in the talent development component.

Actions to remove systemic barriers and ensure opportunities for the recruitment and retention of individuals from underrepresented groups and ECRs: The EDI approach describes ongoing and rigorous actions taken to identify, address and mitigate systemic barriers that may result in individuals from underrepresented groups (including but not limited to racialized groups, Indigenous Peoples, persons with disabilities, women, and individuals from 2SLGBTQIA+ communities) having unequal access to or being excluded from participating in talent development activities. The approach describes and addresses challenges or systemic barriers that could prevent equitable recruitment, selection, and participation of diverse trainees within the training environment. The approach includes actions to meaningfully include underrepresented groups and ECRs. Principles of equity and diversity were considered in the team composition.

Ratings matrix:

Exceptional	Very good	Fair	Poor
There is in-depth understanding of EDI considerations/systemic barriers with respect to participation in the talent development activities. More than one concrete practice related to each of the described barriers is identified. Implementation of the practices and the expected impact on EDI are explained. ECRs are included in the team and are integrated in a meaningful way .	There is strong understanding of EDI considerations/systemic barriers with respect to participation in the talent development activities. Many concrete practices related to described barriers are identified. Implementation of the practices and the expected impact on EDI are explained. ECRs are included in the team and are integrated in a meaningful way .	There is some understanding of EDI considerations/systemic barriers with respect to participation in the talent development activities. The proposal identifies some concrete practices without relating them to described barriers or making clear how they will be implemented. The impact of described practices is not evident. ECRs are included in the team but are not fully integrated.	There is limited understanding of EDI considerations/systemic barriers with respect to participation in the talent development activities. Concrete practices are not identified or don't relate to described barriers. Meaningful integration of ECRs is not demonstrated .

Research infrastructure criteria

1. Need: Extent to which the infrastructure component efficiently supports research component(s) submitted by institutions

The extent to which the infrastructure will support the ongoing research activities in the supported component(s): The requested infrastructure is appropriate to efficiently support the proposed research activities and/or future related research activities.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The infrastructure is necessary to effectively support all proposed and/or future research activities.	The infrastructure is appropriate to sufficiently support all proposed and/or future research activities.	The infrastructure is appropriate to support some of the proposed and/or future research activities.	The infrastructure is appropriate to support only a limited portion of the proposed and/or future research activities.
All requested items are highly appropriate .	All requested items are appropriate .	Some of the requested items are inappropriate .	Most of the requested items are inappropriate .

Appropriateness of the budget: The budget is appropriate to acquire the infrastructure.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The budget is comprehensive and highly appropriate for all planned infrastructure purchases.	The budget is appropriate for all planned infrastructure purchases	The budget is insufficient for some planned infrastructure purchases.	The budget is insufficient for most planned infrastructure purchases.

2. Building capacity: Extent to which the infrastructure component enhances the research capacity of the institution(s) to support the hub’s, vision, priorities and program of research.

Complementarity to existing capacity: The requested infrastructure will complement and leverage existing infrastructure to enhance the capacity of the institution(s) to support the endorsing hub’s vision, priorities, and program of research over the medium and long term.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The requested infrastructure is highly complementary to and optimally leverages the existing infrastructure to significantly enhance institutional research capacity.	The requested infrastructure is complementary to and leverages the existing infrastructure to enhance institutional research capacity.	The requested infrastructure is somewhat complementary to and partially leverages the existing infrastructure, resulting in limited enhancements to the institution’s research capacity.	The requested infrastructure is not complementary to and does not leverage the existing infrastructure, resulting in little to no impact on the institution’s research capacity.

Necessary expertise to make optimal use of the infrastructure: The team involved in the infrastructure component collectively brings the necessary capacity and expertise to ensure the optimal use of the infrastructure.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The team has significant expertise that includes perspectives and capacity from all relevant sectors and disciplines necessary to make optimal use of the infrastructure.	The team has the appropriate expertise that includes perspectives and capacity from all relevant sectors and disciplines necessary to make optimal use of the infrastructure.	The team’s expertise is somewhat appropriate and/or only includes perspectives and capacity from some relevant sectors and disciplines. It is unlikely that the infrastructure will be optimally used .	The team has limited expertise and/or only includes perspectives and capacity from a limited number of relevant sectors and disciplines. It is unlikely that the infrastructure will be optimally used .

3. Sustainability: Extent to which the infrastructure component will be optimally used and maintained over its useful life.

Effectiveness of the oversight plan(s): The oversight structure(s) and plan(s) in place are tailored to the breadth and complexity of the infrastructure component and are appropriate to effectively oversee the ongoing operation and maintenance of the requested infrastructure. Plans should include:

- a description of the expertise and roles of the team members involved in oversight activities; and
- data management considerations, as appropriate.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The oversight structure(s) and/or plan(s) are highly appropriate and will enable effective oversight of the purchase and maintenance of the infrastructure.	The oversight structure(s) and/or plan(s) are appropriate and will enable effective oversight of the purchase and maintenance of the infrastructure.	The oversight structure(s) and/or plan(s) are somewhat appropriate and will enable somewhat effective oversight of the purchase and maintenance of the infrastructure.	The oversight structure(s) and/or plan(s) are inappropriate and/or will not enable effective oversight of the purchase and maintenance of the infrastructure.

Appropriateness of the financial resources for operation and maintenance: The operating and maintenance costs outlined in the infrastructure component are appropriate and sufficient to sustain the infrastructure over its useful life. Funds for operating and maintaining the infrastructure are secured or a plan to secure funds is provided and includes:

- an appropriate allocation of resources;
- a contingency plan for potential funding shortfalls; and
- diversified revenue and funding sources, as appropriate.

Ratings matrix:

Exceptional	Very good	Fair	Poor
The outlined operating and maintenance costs are comprehensive . Highly appropriate plans and extensive resources are in place to sustain the infrastructure over its useful life.	The outlined operating and maintenance costs are satisfactory . Appropriate plans and sufficient resources are in place to sustain the infrastructure over its useful life.	Some of the operating and maintenance costs are insufficient . Incomplete plans and/or limited resources are in place to sustain the infrastructure over its useful life.	The outlined operating and maintenance costs are inadequate . Incomplete plans and/or insufficient resources are in place to sustain the infrastructure over its useful life.

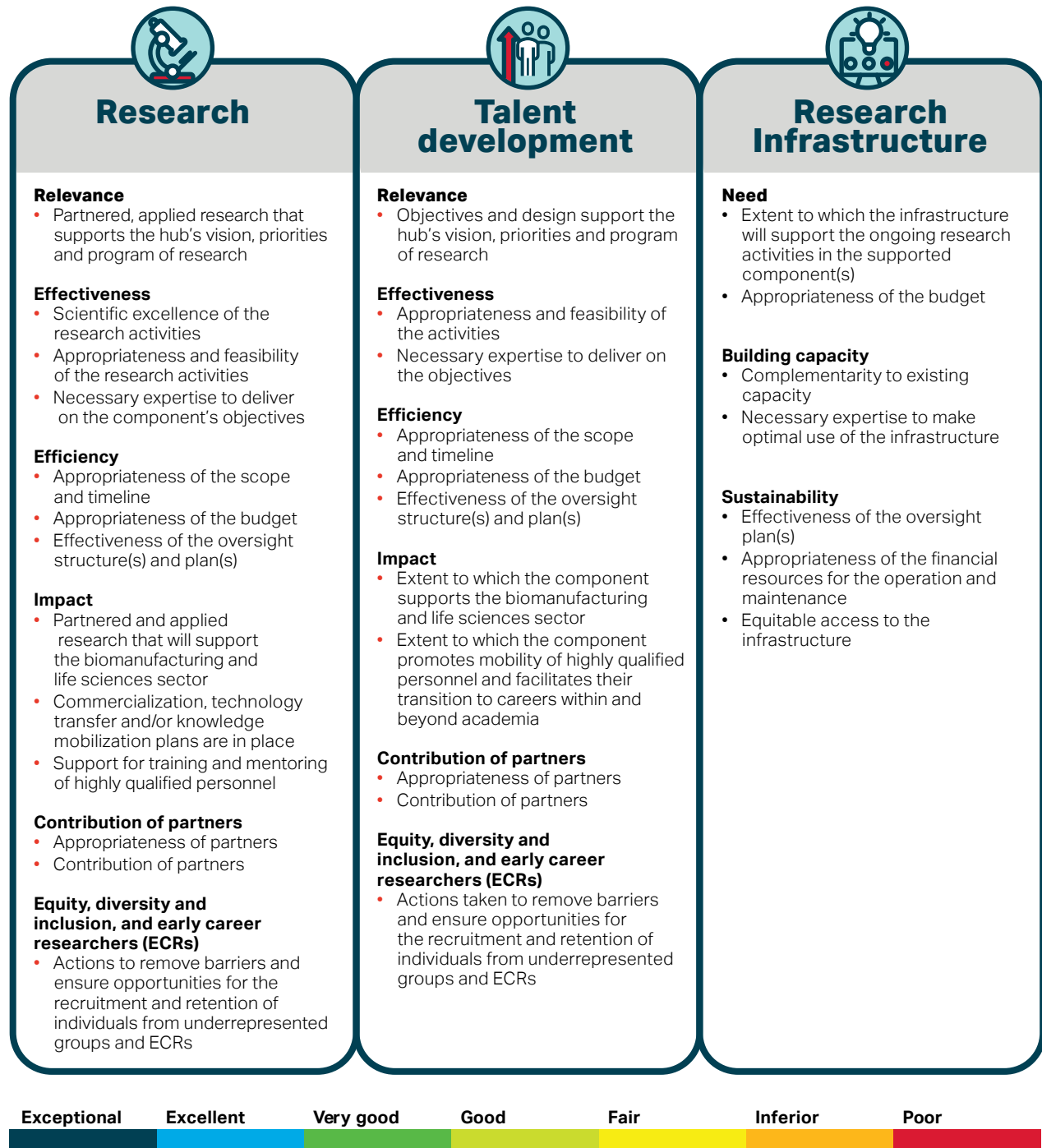
Equitable access to the infrastructure: The EDI approach describes ongoing and rigorous actions to support ECRs and mitigate systemic barriers that may result in individuals from underrepresented groups having unequal access to or being excluded from accessing the infrastructure. The approach describes and addresses the specific challenges or systemic barriers that could prevent equitable access.

Ratings matrix:

Exceptional	Very good	Fair	Poor
<p>There is in-depth understanding of systemic barriers preventing equitable access to the infrastructure.</p> <p>More than one concrete practice related to each of the described barriers is identified. Implementation of the practices to effectively ensure equitable access is explained.</p>	<p>There is strong understanding of systemic barriers preventing equitable access to the infrastructure.</p> <p>Many concrete practices related to described barriers are identified. Implementation of the practices to sufficiently ensure equitable access is explained.</p>	<p>There is some understanding of systemic barriers preventing equitable access to the infrastructure.</p> <p>Some concrete practices are identified without relating them to described barriers or making clear how they will be implemented. The impact of described practices on equitable access is not evident.</p>	<p>There is limited understanding of systemic barriers preventing equitable access to the infrastructure. Concrete practices are not identified or don't relate to identified barriers.</p>

Appendix 3: Quick reference guide on criteria

Figure 4: The selection criteria, subcriteria and rating scale



Detailed descriptions of the selection criteria and ratings matrices are in [Appendix 2: Selection criteria and ratings matrices](#).

Appendix 4: Selection criteria mapping

Figure 5 The selection criteria mapping

Overview of Supporting Documents

Scientific and technical summary <ul style="list-style-type: none"> R Relevance E Effectiveness E Efficiency I Impact C Contribution of Partners E EDI/ECR N Need B Building Capacity S Sustainability 	Detailed Description			Detailed budget(s) <ul style="list-style-type: none"> E Efficiency C Contribution of Partners N Need B Building Capacity
	Proposal <ul style="list-style-type: none"> R Relevance E Effectiveness E Efficiency C Contribution of Partners E EDI/ECR B Building Capacity 	Anticipated outcomes <ul style="list-style-type: none"> R Relevance I Impact C Contribution of Partners N Need B Building Capacity 	EDI & ECR <ul style="list-style-type: none"> R Impact E EDI/ECR N Need S Sustainability 	Partner contributions <ul style="list-style-type: none"> C Contribution of Partners
	Management plans <ul style="list-style-type: none"> R Effectiveness I Impact B Building Capacity S Sustainability 	Budget justification <ul style="list-style-type: none"> R Effectiveness I Impact C Contribution of Partners N Need B Building Capacity S Sustainability 	Literature references <ul style="list-style-type: none"> E Effectiveness 	Floor plans (if applicable) <ul style="list-style-type: none"> N Need B Building Capacity S Sustainability
			Team biosketch <ul style="list-style-type: none"> E Effectiveness B Building Capacity 	Hub endorsement report <ul style="list-style-type: none"> R Relevance

A mapping of the selection criteria to the documents required for applications is in Figure 5. Selection criteria are associated with colours and the mapping shows where the information for each criterion can be found. This mapping is intended to be used as a guide and applicants are free to organize information as they see fit within their proposal and required documents.