Guidelines and Evaluation Criteria for Competition II December 2001

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Genome Canada is a not-for-profit corporation dedicated to developing and implementing a national strategy in genomics research for the benefit of Canadians. To this end, the federal government has granted Genome Canada $300 million to establish five research centres.

1 Objective

The overriding objective of Genome Canada is to coordinate genomics research to enable Canada **to become a world leader** in selected sectors that are of strategic importance to this country, such as health, agriculture, environment, forestry and fisheries.

In order to accomplish this objective, Genome Canada will:

1. Bring together industry, governments, universities, hospitals, research institutes and the public in support of the national genomics research program.

2. Establish five Genome Centres across Canada: one each in British Columbia, the Prairies, Ontario, Québec and the Atlantic provinces to provide leading-edge technologies to researchers and cross-disciplinary training of the necessary workforce in all genomics-related fields.

3. Support large-scale genomics projects that draw on existing Canadian strengths and expertise, and whose scale and scope are such that they cannot currently be funded at internationally competitive levels, through existing mechanisms.

4. Put in place research infrastructure to support the major science and technology platforms essential for the large-scale projects including, but not limited to, functional genomics and proteomics, genomics sequencing, genotyping, bioinformatics and new technology development.

5. Ensure leadership in ethical, environmental, legal and social issues related to genomics (GELS).

6. Effectively communicate the results of genomics research to the public, thereby helping Canadians to understand the relative risks and rewards of this type of research.

7. Foster Canadian participation in international genomics research programs.

8. Encourage investment in genomics research by others.

9. Create and realize economic, industrial and social benefits to Canada.

2 Background

In February 2000 the federal government, through Industry Canada, awarded $160 million to Genome Canada for investment in five Genome Centres across the country. A further $140 million was granted to Genome Canada in February 2001, bringing the total amount available for the co-funding of genomics research activities to $300 million.

Five Genome Centres, one for each of the identified regions (British Columbia, the Prairies, Ontario, Quebec, and the Atlantic region), were approved for funding in March 2001. The Centres have as their foundation, large-scale research projects and science and technology platforms. Contact information for each Centre is presented in Appendix A.

Up to $135 million of the $300 million federal grant has been committed to the initial funding for genomics research in the five Centres. Research to be undertaken by Centre scientists covers all five sectors of strategic importance to Canada (health, agriculture, environment, forestry and fisheries), as well as GELS. A list of large-scale projects and science and technology platforms approved for funding in each Centre is presented in Appendix B.

3 Competition II

Genome Canada is now providing an opportunity for the Genome Centres to submit new applications for consideration of co-funding (50:50) by Genome Canada. The review process for new submissions will employ the same rigorous standards as the initial Genome Centre competition. A multidisciplinary panel composed of leading genomics experts from around the world will be charged with the task of assessing the merit of the proposals and making recommendations to the Board of Directors of Genome Canada.

Genome Canada will accept applications from Genome Centres for:

1. Large-scale genomics research projects: In a rapidly evolving field, a precisely worded definition of genomics could well be counterproductive. However, there is a clear division between studies that are “genome-wide” in scale and scope and those research projects currently funded by grants to individuals and groups of investigators in areas such as biochemistry, genetics or molecular biology. Genome Canada is seeking proposals that are “genome-wide” and of such scale and scope that they cannot currently be funded at internationally competitive levels through existing mechanisms.

   A proposal for research into the ethical, environmental, legal and social issues surrounding genomics (GELS) can be submitted as a large-scale project and/or as a component of other projects. Similarly, proposals to develop new technology related to genomics can be submitted as a large-scale project and/or as a component of other projects.

2. Science and technology platforms: These will provide the technology and resources necessary for the successful implementation of the current or newly proposed large-scale project(s). The science and technology platforms will also have the potential to provide the necessary resources and expertise to investigators whose genomics research projects are supported by other funding organizations, such as CIHR, NSERC, and SSHRC, or as contract research services for industry.

   It is understood that the science and technology platforms of each Centre will evolve and expand following the demonstrated needs of the research community. Accordingly, it is the responsibility of each Genome Centre to determine the proportion of time each platform is committed to the large-scale projects versus projects supported by other sources. The proportion of time committed to each may vary from Centre to Centre and over time.

In order to maximize the effectiveness of Genome Canada to advance genomics research in Canada, it may be desirable to provide opportunities for sharing of resources and expertise between Centres. It is possible that large-scale projects from one Centre may require the science and technology platforms available in another Centre. It is also possible that researchers from across Canada and from other countries may collaborate on large-scale projects, sharing technology, knowledge, GELS expertise and resources. Genome Canada will encourage and support such arrangements, where desirable.

4 Application and Evaluation Procedures

Requests for support of large-scale research projects and science and technology platforms must be submitted to Genome Canada by a Genome Centre.

Eligible applicants, including researchers from industry, government laboratories, academic institutions and research institutes, interested in submitting applications for **large-scale projects** must contact a Genome Centre. It is the responsibility of the Centre to determine which large-scale projects to put forward, ensuring each satisfies Genome Canada's broad criteria of eligibility, i.e., is it large-scale, is it truly genomics in one of the areas identified as strategic to Canada (i.e., health, environment, forestry, fisheries, agriculture and GELS), and is there a realistic management plan and a feasible plan to secure co-funding. Genome Canada will not accept proposals that do not satisfy these broad criteria of eligibility.

In the case of **science and technology platforms**, each Genome Centre must determine which platforms are required to support the existing and proposed large-scale projects in the Centre and submit to Genome Canada requests for funding. Genome Canada will not accept proposals for science and technology platforms, which are not related to large-scale projects funded by Genome Canada.

4.1 Registration (November 1, 2001)

By November 1, 2001, each Genome Centre must register the intent to submit an application for funding to Genome Canada. The registration package must include the following:

I Cover Letter from the Genome Centre, including:

A Confirmation (copy of the resolution of the Board) that the Board of Directors of the Centre has approved the submission to Genome Canada.

B A detailed plan for financing the proposed projects and platforms. It is the responsibility of the Centre to work with the applicants to secure at least 50% of the funding, in aggregate, for the eligible costs of the proposed budgets (section 5, below). In cases where it is not possible to provide such a plan, a feasible proposal outlining a strategy for securing such funding must be included.

II Description of each large-scale project and science and technology platform. Each description must include:

A Cover page, including:

- title and logo of the Genome Centre
- title of proposal
- name, affiliation, signature, address, telephone and fax numbers, and e-mail address of principal applicant/director
- name and affiliation of co-applicants
- names and signatures of the Chairman of the Board and the President and CEO of the Genome Centre
- date of submission of the application

B Proposal
Summary of research project or description of science and technology platform (three-page maximum)

C Research Team
A brief description of the research team and the role each will play in the proposal (two-page maximum)

D Preliminary budget, including:

- estimated costs for: salaries and fringe benefits, consumables, equipment, administration/management, services from science and technology platforms (for large-scale project applications) and cost recoveries for services provided (for platform applications)
- total amount requested, indicating the portion requested from Genome Canada and the portion to be provided by others. You may not request funding for budget items for which you have funding from other sources.

E Collaborators and partners
A list of collaborators and partners and their role in the proposed research/platform (one-page maximum)

F Suggested reviewers
You may provide the names, contact information and expertise of five (5) potential non-Canadian reviewers. They should not be in a conflict of interest with any of the applicants. You may also indicate those reviewers to whom you would prefer that your application NOT be sent.

The registration document can be single-spaced, but a type font no smaller than 12 point must be used. Ten (10) copies of the registration package (original and nine (9) copies) are requested. Additional copies may be made by Genome Canada if required. DO NOT BIND THE PACKAGE. TABS MAY BE USED TO SEPARATE SECTIONS OF THE PACKAGE.

The main purpose of the registration process is to provide guidance to Genome Canada in the selection of reviewers for the peer review process, not to determine eligibility. It is the responsibility of each Genome Centre to ensure that the proposals put forward satisfy Genome Canada's broad criteria of eligibility, as described above.

4.2 Full Application for Funding (December 13, 2001)

An application for funding must be received from the Genome Centre by Genome Canada on or before December 13, 2001. The application from each Centre must include the following:

I Cover letter from the Genome Centre, including:

A Confirmation (copy of the resolution of the Board) that the Board of Directors of the Centre has approved the submission to Genome Canada

B A detailed plan for financing the proposed projects and platforms. It is the responsibility of the Centre to work with the applicants to secure at least 50% of the funding, in aggregate, for the eligible costs of the proposed budgets (section 5, below). In cases where it is not possible to provide such a plan, a feasible proposal outlining a strategy for securing such funding must be included. **Only those submissions proposing a plan that meets Genome Canada's approval will be submitted for peer review**.

II A detailed proposal for each large-scale project and science and technology platform. The application format for large-scale projects is presented in Appendix C. The application format for science and technology platforms will be provided directly to the Genome Centres.

A multidisciplinary panel of international experts will be established to review the applications. A meeting of the panel will take place in March 2002. To assist the panel, written reports will be solicited from external reviewers for each proposal and forwarded to the panel members in advance of their meeting. At the same time, a team of consultants will visit with project and platform applicants to undertake a due diligence process on the financial and administrative aspects of the proposals. Information obtained from the due diligence process will be available to the review panel in advance of its meeting. The panel will review each application taking into consideration all the evaluation criteria (scientific, financial and management), as detailed in Appendix D. During the meeting there will be an opportunity for the panel members to meet with investigators from each proposal. Genome Canada may adjust the evaluation process where warranted by the complexity of the proposals or other relevant factors.

The review panel will offer recommendations and advice, including budget recommendations, to the Board of Directors of Genome Canada. The Board of Directors will make the final decision on funding for each proposal before March 30, 2002. Following the decision, applicants will be provided with a detailed evaluation of the strengths and weaknesses of their application.

5 Funding

Genome Canada will provide up to 50% of the funding for eligible costs of projects and platforms approved for funding by Genome Canada. At the time of application to Genome Canada there must be either a firm commitment for at least 50% of the requested funding, in aggregate, for eligible costs of the projects and platforms, from other sources (e.g., provincial governments, not-for-profit organizations, and industry, etc.), <u>or</u> a feasible strategy proposed for securing such funding. The strategy must be well developed and approved by Genome Canada. **<u>Funds from Genome Canada will not be disbursed until co-funding is secured.</u>**

5.1 Eligible costs:

- the cost of salaries and fringe benefits for researchers, trainees, technicians, management and support staff needed for the operation of the research infrastructure
- operating costs
- costs related to the general maintenance of research infrastructure, to be used for carrying out research proposed in the large-scale projects
- support for research into ethical, environmental, legal and social issues related to genomics research (GELS)
- support for research on new technology development
- costs for the communications and public outreach program
- research infrastructure within Canada. As defined in the *Funding Agreement between Genome Canada and the Government of Canada*, research infrastructure means equipment, specimens, scientific collections, computer hardware or software, information databases, communications linkages and intangible property used or to be used primarily for carrying on the research, including housing and installations essential for the use and servicing of the items listed above. Housing and installations include existing buildings and facilities, or new buildings and facilities, essential for the use of those items listed above, and
- reasonable and low administrative costs
- contribution to associated development costs with host institutions, calculated at ten per cent (10%) of estimated salaries and fringe benefits for large-scale projects and science and technology platforms

6 Administration

6.1 Management of Funding

The Genome Centres have been established as not-for-profit corporations under the *Canada Corporations Act Part II* and are contractually related to Genome Canada. The contract between Genome Canada and the Genome Centre will specify financial commitments from other persons, cash flow statements, expected outcomes, performance indicators, comparative benchmarks and monitoring programs. Contracts will be negotiated in accordance with the national objectives of Genome Canada. As the needs and circumstances of each Centre will differ from one another, the contracts with each Centre will be negotiated individually and need not be identical. Genome Canada's share of the funding for approved projects and platforms will flow from Genome Canada to the Centres. The Genome Centres will manage the funds for all activities of the Centre.

6.2 Accountability and Reporting

Each Centre must fulfil the evaluation, audit, accountability and reporting requirements established by Genome Canada, including the provision of information necessary to enable Genome Canada to assess the ongoing performance of the Centre. It is the responsibility of the investigators leading the large-scale projects and science and technology platforms funded by the Centre to participate in this process. As part of its accountability process, each Centre must put in place a mechanism to assess the ongoing performance of the projects and platforms in order to determine from time to time whether funding for a project or platform should be continued, reduced, suspended or cancelled.

7 Time line

Circulation of guidelines	July 2001
Registration	November 1, 2001
Receipt of full application	December 13, 2001
Peer review meeting	March 2002
Board approval	March 2002

8 Further Information

Any queries should be directed to:

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Vice-President, National Genomics Program
Genome Canada
155 Queen Street
Suite 900
Ottawa, ON K1P 6L1
Tel: (613) 751-4460
Fax: (613) 751-4474
E-mail: cbell@genomecanada.ca

For further information on Genome Canada, please see *The Funding Agreement between Genome Canada and the Government of Canada*. This document is available from Genome Canada.

9 Frequently Asked Questions

Who will determine the composition of the application for funding to be submitted by a Genome Centre to Genome Canada?

It is the responsibility of the Board of Directors of the Genome Centre to determine the composition of the application for funding. The Board of each Centre will use its own methods for selecting proposals to be included in the Centre's application to Genome Canada. Applicants whose proposals have unique features, such as having activities in more than one region, may consult with Genome Canada for guidance.

What is the purpose of the registration process?

The main purpose of the registration process is to provide guidance to Genome Canada in selection of reviewers for the peer review process.

When will a decision on registration be made?

As it is the responsibility of the Genome Centre to ensure the proposals put forward to Genome Canada meet the broad criteria of eligibility as described in section 4, the registration process is not intended to be used as a selection tool. However, if at the time of submitting a full application for funding to Genome Canada (December 13, 2001), the broad criteria of eligibility have not been met, the proposal will not be submitted for peer review.

How will resubmissions be reviewed?

Projects, which were submitted to Genome Canada in Competition I and were not funded, are eligible to re-apply for funding. They will be considered *de novo* and reviewed on a level playing field with new submissions. It is the responsibility of the applicant to determine how to respond to previous reviews, while adhering to the application format as described in Appendix C.

How will research into the ethical, environmental, legal and social issues surrounding genomics (GELS) be supported?

GELS research may be funded by Genome Canada in three ways: (i) through the Genome Centres, in the form of a large-scale project (50:50); (ii) through the Genome Centres as a component of one or more large-scale projects (50:50); and (iii) through a national research program which is currently being developed.

Can I apply directly to Genome Canada for support of a large-scale project or science and technology platform?

No. Applications for funding of large-scale projects must be made through a Genome Centre. Persons interested in submitting applications for large-scale projects must contact a Genome Centre. Contacts for the five Genome Centres are presented in Appendix A. Applications for funding of science and technology platforms must be made by a Genome Centre. Each Centre must determine which platforms are required to support the existing and proposed large-scale projects and submit to Genome Canada a request for funding. Genome Canada will not accept proposals for science and technology platforms, which are not related to large-scale projects funded by Genome Canada.

Is it necessary to secure funding from other sources in order to receive funding from Genome Canada?

Yes. Genome Canada will provide up to 50% of the funding for Genome Canada approved eligible costs of a Genome Centre, including projects and platforms. The balance of the funding must be secured from other funding organizations. For example, if following peer review, it is determined that $10,000,000 is required to fund your research proposal over a 3-year period; you must secure at least $5,000,000 from other sources. The funds can come from a number of other funding organizations, both within and outside Canada (e.g., governments, not-for-profit organizations, industry).

Are in-kind contributions acceptable to Genome Canada?

Normally, Genome Canada requires that contributions from other sources be in cash. However, in exceptional cases, Genome Canada may consider in-kind contributions. Decisions will be made on a case-by-case basis, subject to audit verification of their validity.

Can large-scale projects and science and technology platforms be shared among Genome Centres? Can a researcher in one region be funded through a Genome Centre in another region?

Yes. Collaborations across regions, where feasible and desirable will be supported and encouraged by Genome Canada. Applicants and their Genome Centres should consult with Genome Canada to review how these collaborations might be submitted for review and how they might be organized administratively.

Will researchers who are funded by other agencies have access to the science and technology platforms in a Genome Centre?

In addition to supporting the large-scale projects of the Genome Centre the science and technology platforms of the Centre may also provide support to research projects that are supported by funds from outside Genome Canada. It is understood that the science and technology platforms of each Centre will evolve and expand following the demonstrated needs of the research community**.** Accordingly, it is the responsibility of each Genome Centre to determine the proportion of time each platform is committed to the large-scale projects versus projects supported by other sources. The proportion of time committed to each may vary from Centre to Centre and over time.

Can out-of-country skills and technology be accessed?

It is Genome Canada's intent to allow Genome Canada funded researchers to access out-of-country resources. The current wording of the *Funding Agreement between Genome Canada and the Government of Canada* is under review and we are working with Industry Canada to clarify this issue.

How can industry participate?

Industry can participate in three ways: (i) researchers from industry can apply as a principal applicant on a proposal to Genome Canada; (ii) researchers from a company may also be a co-applicant or collaborator on a proposal submitted by another investigator; and (iii) a company may be a funding partner on a given project.

Will Genome Canada fund both basic and applied research?

Yes, Genome Canada will fund all eligible genomics research that meet the high standards of our peer review. The key issue is not whether the proposed research is basic or applied, but whether the proposed work will ensure that Canada is, or will become, a world leader in the specific area proposed in the project. Excellence is the key.

Appendix A Genome Centre Contacts

British Columbia:
Roger Foxall
tel: (604) 675-6961
rafoxall@island.net

Prairies:
Randy Johnston
tel: (403) 220-2249
rnjohnst@ucalgary.ca

Ontario:
Ken Knox
tel: (416) 977-9692
kknox@oit.on.ca

Québec:
Paul L'Archevêque
Tel: (514) 893-2542
larcheveque@sympatico.ca

Atlantic Provinces:
Joe Gillis
tel: (902) 421-5646
wjgillis@hfx.eastlink.ca

Appendix B Large-Scale Projects and Science and Technology Platforms Approved for Funding

Genome British Columbia

Sector	Principal Investigator/ Institution	Project Title
Fisheries	**Davidson, William** Simon Fraser University	GRASP: Genomics Research on Atlantic Salmon Project
Environment	**Davies, Julian E.** University of British Columbia	Microbial envirogenomics
Health	**Ling, Victor** BC Cancer Agency	Cancer genomics: a multi-disciplinary approach to the large-scale high-throughput identification of genes involved in early stage cancers
Health	**Moerman, Don G.** University of British Columbia	Using the nematode as a model organism for human biology and diseases: producing knockouts of homologs of human genes in *C. elegans*
Forestry	**Ritland, Kermit** University of British Columbia	Forestry genomics
Platform	**Marra, Marco; Nelson, Colleen; Jones, Steven; Olafson, Bob; Brooks-Wilson, Angela**	Science and Technology Platforms

Genome Prairie

Sector	Principal Investigator/ Institution	Project Title
GELS	**Caulfield, Timothy** University of Alberta	GELS Research Proposal
Agriculture	**Scoles, Graham** University of Saskatchewan	Functional genomics of abiotic stress in crops

Genome Atlantic

Sector	Principal Investigator/ Institution	Project Title
Environment	**Doolittle, W. Ford** Dalhousie University	A comprehensive understanding of prokaryotic genome evolution and diversity: from genomics to metagenomics
Health	**Gray, Michael** Dalhousie University	The protist EST program (PEP)
Platform	**Van de Meer, John**	DNA sequencing facility

Ontario Genomics Institute

Sector	Principal Investigator/ Institution	Project Title
Health	**Rossant, Janet** Samuel Lunenfeld	Functional genomics & proteomics of model organisms
GELS	**Singer, Peter A.** University of Toronto	Canadian programme on genomics and global health
Health	**Tsui, Lap-Chee** Hospital for Sick Children	Genetic determinants of human health and disease
Platform	**Greenblatt, Jack**	Proteomics Technology Core Facility
Platform	**Scherer, Stephen**	Genome Resource Core Facility

Genome Quebec

Sector	Principal Investigator/ Institution	Project Title
Health	**Bergeron, John J.M.** McGill University	Montreal network for pharmaco-proteomics and structural genomics
Health	**Bussey, Howard** McGill University	Projects in functional genomics using model organisms
Health	**Hudson, Thomas J.** McGill University	Regulatory genetics - high throughput screening of gene targets related to common genetic diseases
GELS	**Knoppers, Bartha M.** University of Montreal	Genomics in society: responsibilities and rights
Health	**Labrie, Fernand** Centre de recherche du CHUL	Atlas of genomic profiles of steroid action
Platform	**Hudson, Thomas J.**	The Montreal Genomics Node of Excellence

Appendix C Large-Scale Project Application Format

A large-scale project application for funding must be presented in the following format and address the evaluation criteria as described in Appendix D.

I Cover page, including:

- title and logo of the Genome Centre
- title of proposal
- name, signature, address, telephone and fax numbers, and e-mail address of principal applicant
- name, affiliation and signature of co-applicants
- names and signatures of the Chairman of the Board and the President and CEO of the Genome Centre
- date of submission of the application

II Lay Summary (maximum one page). In addition to a summary of the proposal, the following must be addressed:

- how the research is a unique Canadian contribution and it capitalizes on existing Canadian strengths and expertise
- a description of the international impact of the project
- relevance to the objectives of Genome Canada
- economic, industrial and/or social benefits to Canada

III Scientific Summary (maximum one page)

IV Research Proposal (maximum 20 pages, excluding references, figures and tables). **The proposal must address <u>all</u> the relevant review criteria as described in Appendix D and include the following sections**:

- objectives
- background
- research methods
- a time table of achievements, milestones and expected outcomes
- requirement for science and technology platforms
- training program
- communication strategy
- management structure, including decision-making process

V Research Team

- describe the role and time commitment of each of the applicants, collaborators and other key personnel; provide reasons for their inclusion

VI Financial Details

- a budget request for up to three years of funding, **with a full and detailed justification** (use form provided on the Genome Canada website (www.genomecanada.ca) under the “Forms and Guidelines” tab). Clearly indicate the portion of the budget requested from Genome Canada and the portion to be provided by others. You may not request funding for budget items for which you have funding from other sources.
- details of a commitment for co-funding for eligible costs of the research from other sources, or in cases where this is not possible, a feasible proposal outlining a strategy for securing such funding. The strategy must be well developed and approved by Genome Canada. The appropriate letters of commitment and support must be included in Appendix III.
- projected statement of cash flows

Appendix I

Curriculum vitae for each applicant and key personnel (use the form provided on the Genome Canada website (www.genomecanada.ca) under the “Forms and Guidelines” tab).

Appendix II

Five (5) publications from the past five years, relevant to the proposal, as well as questionnaires and consent forms, where applicable.

Appendix III

- A list of partners and collaborators from industry, governments, universities, research institutes, hospitals and the public, and their role in the proposed research
- Letters of collaboration and support.

Appendix IV

Information on other sources of financial support, currently held or applied for, which have budgetary **overlap** with the current proposal.

Appendix V

Certification forms. Applicants proposing to perform research requiring certification, such as research involving animals, human subjects, biohazards, radioactive materials or possible effects on the environment, must obtain the appropriate certification.

The application can be single-spaced, but a type font no smaller than 12 point must be used. Twenty (20) copies of the full application (original and nineteen (19) copies) are required. Additional copies may be made by Genome Canada if required. **DO NOT BIND THE APPLICATION. TABS MAY BE USED TO SEPARATE SECTIONS OF THE APPLICATION.**

Appendix D Review Criteria

To ensure that the objectives of Genome Canada are met, proposals are assessed against the following three criteria. A threshold of excellence must be exceeded for each criterion. The descriptors following each criterion are not all-inclusive.

A Scientific Criteria

1. Scientific excellence of the proposed research as affirmed by peer review; genomics focus and comprehensive ("genome-wide") nature of the research proposed; the scale of the project (i.e., is it large-scale?); demonstration that the project is coordinated, integrated and inclusive; importance and/or originality of the questions posed and expected results; appropriateness of the methods and the proposed analyses of data; appropriateness of the discussion of anticipated difficulties and consideration of alternatives; and demonstration of the way in which the proposed research fits into the international genomics research picture (i.e., is it "cutting edge" genomics research?)

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

3. Demonstration that Genome Canada support and resources are critical if the large-scale projects and science and technology platforms are to be successful.

4. Demonstration of the need for the science and technology platforms in supporting the large-scale genomics projects.

5. The benefits to Canada, which may include economic, industrial and social.

6. The extent to which, in the case of the large-scale projects, the research proposed, and in the case of the science and technology platforms, the services to be provided, will increase the productivity of genomics research, and enhance the development of new methods, perspectives and technology to improve Canada's capacity for innovation.

7. Demonstration that research to be carried out or the services to be provided, build on existing Canadian strengths and expertise in genomics research and/or targets a unique Canadian niche.

8. Demonstration of the participation in international genomics research programs.

9. The relevance and impact of anticipated results on the area of research, internationally. Will the research allow Canada to become a world leader? How does it compare to research being conducted elsewhere?

10. Quality of the plans for disseminating results and data.

11. For projects that have ethical, environmental, legal or social implications, the quality and appropriateness of the plan to address these issues.

12. Results to be achieved, performance expectations and indicators, to be in line with the national objectives of Genome Canada.

13. The potential for research training: excellence of the training program and appropriateness of the training environment to ensure that a sufficient quantity of highly skilled researchers and technicians are available to fuel the demands in genomics for the next decade.

B Financial Criteria

1. The ability to secure co-funding for eligible costs of the approved activities from other sources. This may be in the form of a commitment to co-fund or a strategy for securing such funding.

2. Effectiveness of financial and budgetary control mechanisms.

3. Effectiveness of the plan for deployment of human resources, equipment and infrastructure.

4. For science and technology platform proposals, the cost-recovery policy with respect to services provided to the private sector.

5. The relationship expected between the proposed costs and potential benefits of the research proposed or the services provided.

6. When applicable, the expected commercial potential.

7. The quality of the documentation and principal financial hypothesis, which supports the proposed budget.

C Management Criteria

1. Appropriateness and quality of the management plan, including the effectiveness of the administrative and organizational management structure.

2. Quality of the plans for making critical decisions or choices about the overall research direction.

3. Strategies and implementation plan for coordination, liaison and networking with Genome Centres and other relevant groups, organizations and individuals, regionally, nationally and internationally.

4. For science and technology platform proposals, strategies for provision of access to other researchers whose research is funded outside of Genome Canada.

5. Plans to form alliances and partnerships with industry, governments, universities, hospitals, research institutes and the public in support of the national genomics research program.

6. Strategy for communication, public outreach and knowledge dissemination.

7. For projects where there is commercial potential, the strategy for commercialisation, technology transfer and handling of intellectual property issues.

8. For science and technology platform proposals, the policy and selection process with respect to services to the private sector.