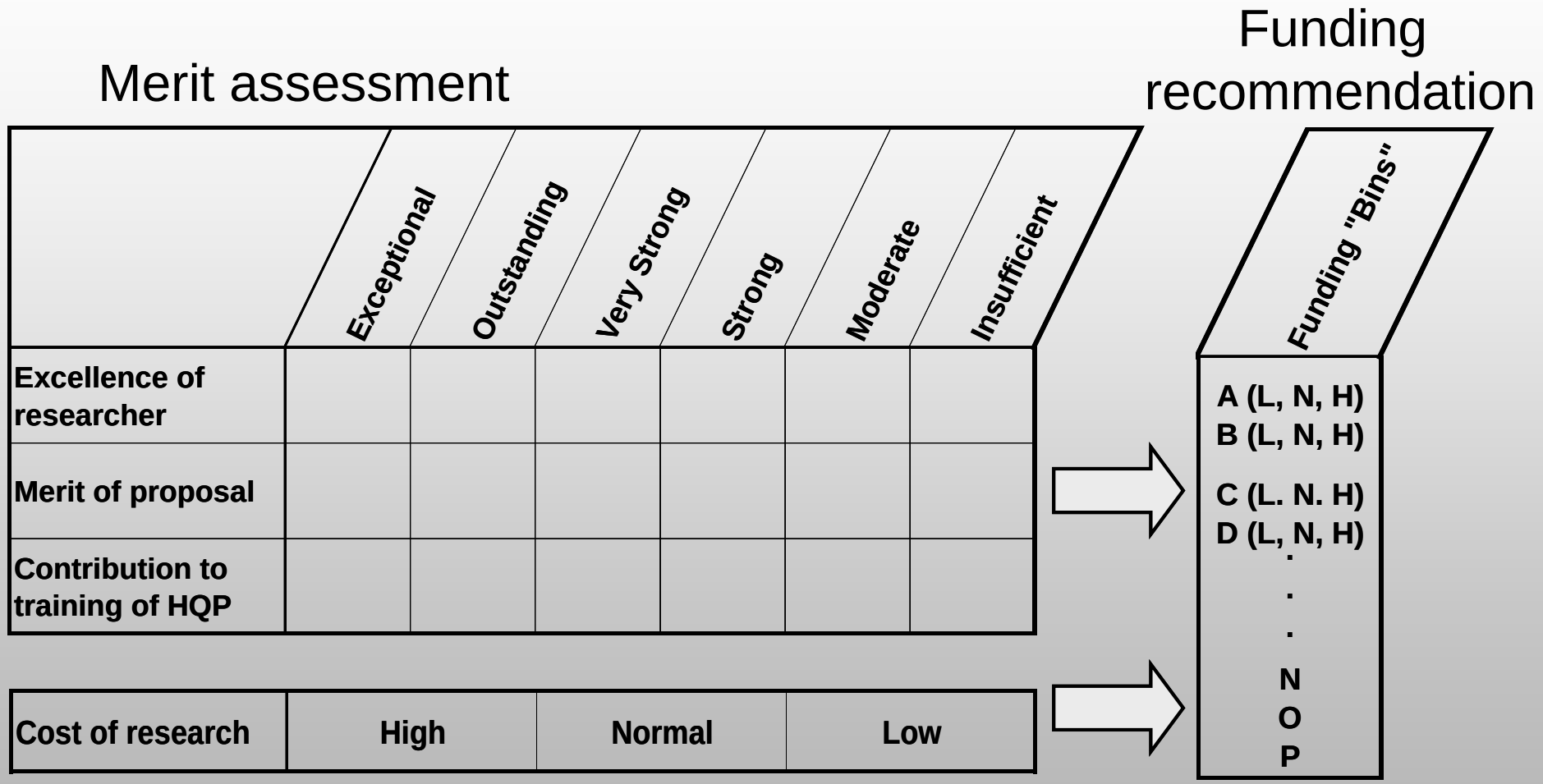
Discovery Grants Roundtable
EG 1503

September 3, 2015

DG Evaluation Process Overview

- Merit assessment uses six-point scale to evaluate:
  - Scientific or Engineering Excellence of the Researcher(s)
  - Merit of the Proposal
  - Contributions to the Training of HQP
- Each application assessed by 5 reviewers in conference model setting, ensuring best possible review
- Applications of comparable merit grouped in “bins”
- Within an EG, each bin is assigned a funding recommendation, with possible modulation related to the cost of research

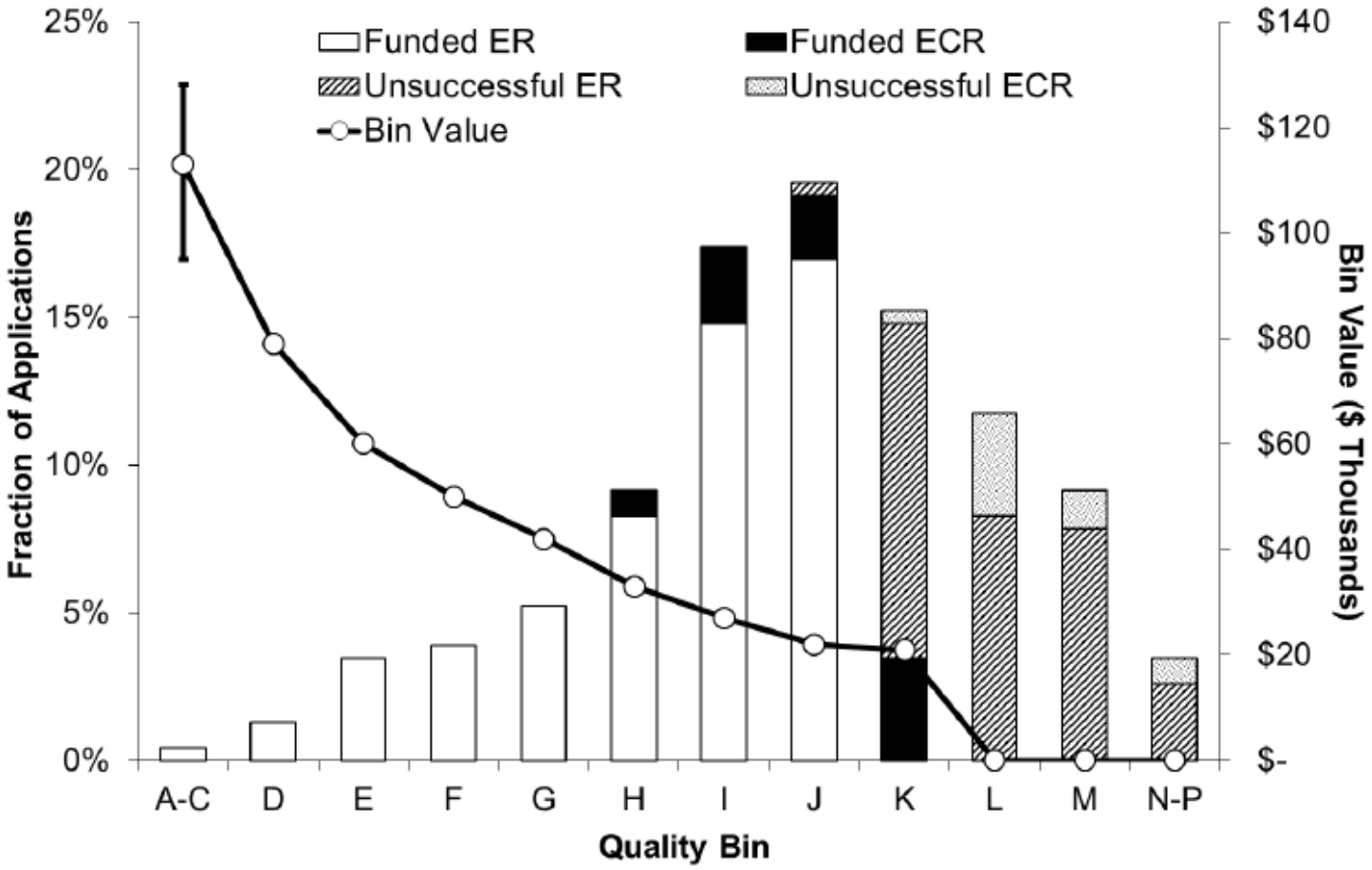
DG Two-Step Review Process



Evaluation Groups

- Genes, Cells and Molecules (1501)
- Biological Systems and Functions (1502)
- Evolution and Ecology (1503)
- Chemistry (1504)
- Physics (1505)
- Geosciences (1506)
- Computer Science (1507)
- Mathematics and Statistics (1508)
- Civil, Industrial and Systems Engineering (1509)
- Electrical and Computer Engineering (1510)
- Materials and Chemical Engineering (1511)
- Mechanical Engineering (1512)

Evolution and Ecology*



1503 - Evolution and Ecology	Early Career Researchers	Established Researchers	
		Renewing	Not Holding a Grant
Success Rate	60%	76%	30%
Average Grant	$28,810	$34,381	$24,333
Total Amount Awarded	$605,000	$3,781,950	$365,000

APPLYING TO THE DISCOVERY GRANTS PROGRAM

Life Cycle of a Discovery Grant Application

August 1
Submission of Notification of Intent to Apply with CCV

September to October
Initial assignment to EG and contacting of external reviewers

November 1
Submission of grant application with CCV

Mid-November
Applications sent out to external reviewers

Early December
Evaluation Group members receive applications

February
Grants competition

March to April
Announcement of results

Notification of Intent to Apply for a Discovery Grant – Why?

- Used to identify:
  - Most appropriate EG to review the application
  - Need and potential benefits of a joint review between EGs
  - External reviewers for the application
  - Mandate eligibility issues

Notification of Intent to Apply for a Discovery Grant – When and What?

- Deadline: August 1
  - Electronic submission only through the Research Portal
  - Mandatory: if not submitted by deadline, full application will not be accepted

- Includes:
  - Notification of Intent to Apply, listing up to five research topics in priority order
  - CCV

Submitting a Discovery Grant Application

- Deadline November 1st
  - Check institutional internal deadline
- A full Discovery Grant submission includes:
  - Application for a Grant
  - NSERC Researcher CCV
  - Samples of research contributions (reprints, pre-prints, thesis chapters, manuscripts, patents, technical reports, etc.)

Application Modules	Text Box Limit of characters
Summary of Proposal Provide a summary of the proposal in language that the public can understand.	2,500
Relationship to Other Research Support – Explanation Explain any relationship and/or overlap (conceptual or budgetary) between work currently supported by other funding sources or work for which funding has been requested, and work supported by NSERC (including the current application).	10,000
Highly Qualified Personnel Training Plan Describe how the research program and its anticipated projects are appropriate for Highly Qualified Personnel (HQP) training, and discuss the pertinence of the training plans for the research program and involvement of trainees in individual projects.	5,000
Past Contributions to Highly Qualified Personnel Training Clarify your contributions to training of HQP over the **last six years**.	2,500
Most Significant Contributions to Research List up to five of your most significant contributions to research and/or to practical applications over the **last six years**. Contributions made more than six years ago but for which the impact is being felt now (e.g., exploitation of patent, inclusion in a code, etc.) may be included.	7,500
Additional Information on Contributions Provide an explanation, as appropriate, concerning the contributions listed in your NSERC CCV. Such details may include: the nature of collaborations with other researchers; the rationale or practice used for: the order of authors in the publications listed, and the inclusion of students in the list of authors; your role in joint publications; the reason for selecting certain venues (journals, conferences) for publications; the impact or potential impact of patents and technology transfer; etc...	2,500

The Proposal

- Limit of five pages
- Addressing the points below, describe the proposed research to be supported. Images and graphics are included in the page limit.

Recent Progress

- Describe your recent progress in research activities related to the proposal and, in addition for renewals, the progress attributable to your previous Discovery Grant.

Objectives

- Define the short- and long-term objectives of your research program. Note that a research program should have a long-term vision that expands beyond the five years of the Discovery Grant. A single, short-term project or collection of projects does not constitute a research program.

Literature Review

- Discuss the literature pertinent to the proposal, placing the proposed research in the context of the state of the art.

Methodology

- Describe the methods and proposed approach, providing sufficient details to allow the reviewers to assess the feasibility of the research activities.

Impact

- Explain the anticipated significance of the work.

The other parts

Budget Justification

- Limit of two pages

Other Support Sources – Supporting Documents

- File size limit of 10Mb

List of References

- Limit of two pages
- Provide a list of literature references in support of your proposal.
- Do not refer readers to Web sites for additional information on your proposal.
- Do not introduce hyperlinks in your list of references.

Samples of Research Contributions

- Maximum four PDF attachments – file size limit of 10 Mb each
- A maximum of four samples of research contributions—such as reprints, preprints and/or manuscripts, excerpts from your thesis, technical reports, etc.—are to be submitted electronically with your application. The samples of contributions will be used by reviewers to assess the quality of your work. These documents should be chosen to represent your most significant and recent contributions, or those most relevant to the proposed work in the **last six years.**
- Each PDF attachment should include only one sample of a research contribution. Additional information will be removed.

EVALUATION OF DISCOVERY GRANT APPLICATIONS

Evaluation Criteria

- Scientific or Engineering Excellence of the Researcher(s)
- Merit of the Proposal
- Contribution to the Training of HQP

Scientific or Engineering Excellence of the Researcher(s)

- Knowledge, expertise and experience
- Contributions to research in the NSE
- Importance of contributions

Scientific or Engineering Excellence of the Researcher(s): Tips

- Describe up to five most significant research contributions and highlight quality & impact
- List all types of research contributions
- Explain your role in collaborative research activities
- List all sources of support
- Give other evidence of impact
- Explain delays in research activity or particular circumstances that might have affected productivity
  (See Peer Review Manual, Section 6, for details)

Merit of the Proposal

- Originality and innovation
- Significance and expected contributions to research, and potential for technological impact
- Clarity and scope of objectives
- Clarity and suitability of methodology
- Feasibility
- Extent to which the proposal addresses all relevant issues
- Appropriateness and justification of the budget
- Relationship to other sources of funding

Merit of the Proposal: Tips

- Write summary in plain language
- Keep in mind that two audiences read your application: expert and non-expert
- Provide a progress report on related research
- Position the research within the field and state-of-the-art
- Clearly articulate short- and long-term objectives
- Provide a detailed methodology and realistic budget
- Consider comments/recommendations you may have received for previous applications

Merit of the Proposal – Tips: Overlap

- Discuss relationships to other research support
  - For each grant currently held or applied for, clearly provide: the main objective, a brief outline of the methodology, budget details, and details on the support of HQP
  - Must include summary and budget pages for CIHR and SSHRC grants currently held or applied for
- Explain any potential conceptual overlap with other programs/projects
  - Complementary research is encouraged, but must be clearly explained
- Saying “there is 0 overlap” is **not** sufficient

Contributions to the Training of HQP

- Quality and impact of contributions to training during the last six years
- Proposed plan for future training of HQP in the NSE
- Enhancement of training arising from a collaborative or interdisciplinary environment (where applicable)

Read the Policy and Guidelines on the Assessment of Contributions to Research and Training

Contributions to the Training of HQP - Tips

Past contributions to Training:

- Use an asterisk to identify students who are co-authors on the listed contributions
- Explain your role in co-supervision activities
- Explain any delays that might have affected your ability to train HQP
- Describe nature of HQP studies
  - HQP ranges from undergraduate theses and summer projects to postdoctoral levels, and includes technical and other research personnel

Contributions to the Training of HQP - Tips

Training Plan

- Describe the nature of the training (e.g., length, specific projects) in which HQP will be involved, the HQP's contributions and pertinence to the research program proposed
- Discuss the training philosophy and the expected outcomes
- Clearly define your role in any collaborative research and planned joint HQP training

Cost of Research

- Determined by the reviewers as Low, Normal or High as compared to the norm for the research areas represented in the applications considered by the EG(s)
- This is rarely considered outside of Normal in EG1503, and even if done, the adjustment is very small.

Discovery Grants Indicators

6.13. DISCOVERY GRANTS MERIT INDICATORS[1]

	Exceptional	Outstanding	Very Strong	Strong	Moderate	Insufficient
Excellence of the Researcher	Acknowledged as a **leader** who has continued to make, over the last six years, **influential accomplishments** at the highest level of quality, impact and/or importance to a **broad community**.	The accomplishments presented in the application were deemed to be **far superior** in quality, impact and/or importance to a **broad community**.	The accomplishments presented in the application were deemed to be of **superior** quality, impact and/or importance.	The accomplishments presented in the application were deemed to be **solid** in their quality, impact and/or importance.	The accomplishments presented in the application were deemed to be of **reasonable** quality, impact and/or importance.	The accomplishments presented in the application were deemed to be **below an acceptable level** of quality, impact and/or importance.
Merit of the Proposal	Proposed research program is clearly presented, is **extremely original and innovative** and is **likely to have impact by leading to groundbreaking advances** in the area and/or **leading to a technology or policy** that addresses socio-economic or environmental needs. **Long-term vision** and **short-term objectives** are **clearly defined**. The methodology is **clearly defined and appropriate**. The budget **clearly demonstrates** how the research activities to be supported are distinct from and complement those funded by other sources.	Proposed research program is clearly presented, is **highly original and innovative** and is **likely to have impact by contributing to groundbreaking advances** in the area, and/or **leading to a technology or policy** that addresses socio-economic or environmental needs. **Long-term goals are clearly defined and short-term objectives are well planned**. The methodology is **clearly described and appropriate**. The budget **clearly demonstrates** how the research activities to be supported are distinct from and complement those funded by other sources.	Proposed research program is clearly presented, is **original and innovative** and **is likely to have impact by leading to advancements** and/or addressing socio-economic or environmental needs. **Long-term goals are defined and short-term objectives are planned**. The methodology is **clearly described and appropriate**. The budget **demonstrates** how the research activities to be supported are distinct from and complement those funded by other sources.	Proposed research program is clearly presented, is **original and innovative** and is **likely to have impact** and/or address socio-economic or environmental needs. **Long-term goals and short-term objectives are clearly described**. The methodology is **described and appropriate**. The budget **demonstrates** how the research activities to be supported are distinct from and complement those funded by other sources.	Proposed research program is clearly presented, has **original and innovative aspects** and **may have impact** and/or address socio-economic or environmental needs. **Long-term and short-term objectives are described**. The methodology is **partially described and/or appropriate**. The budget **demonstrates** how the research activities to be supported are distinct from and complement those funded by other sources.	Proposed research program, as presented **lacks clarity**, and/or is of **limited originality and innovation**. **Objectives are not clearly described** and/or likely not attainable. Methodology is **not clearly described and/or appropriate**. The budget **does not clearly demonstrate** how the research activities to be supported are distinct from and complement those funded by other sources.
Training of HQP	Training record is **at the highest level**, with HQP contributing **to top quality research**. **Most** HQP move on to positions that require **highly desired skills**, obtained through training received. Research plans for trainees are **appropriate and clearly defined**. HQP **success highly likely**.	Training record is **far superior** to other applicants, with HQP contributing to high-**quality research**. **Most** HQP move on to positions that require **highly desired skills**, obtained through training received. Research plans for trainees are **appropriate and clearly defined**. HQP **success highly likely**.	Training record is **superior** to other applicants, with HQP contributing to **quality, original research**. **Many** HQP move on to appropriate positions that require **desired skills**, obtained through training received. Research plans for trainees are **appropriate and clearly described**. HQP **success is likely**.	Training record compares **favourably** with other applicants. HQP **generally** move on to positions that require **desired skills**, obtained through training received. Research plans for trainees are **appropriate and described**. HQP **success is likely**.	Training record is acceptable but may be modest relative to other applicants. **Some** HQP move on to programs or positions that require **desired skills**, obtained through training received. Plans for trainees are **described** and **should contribute to HQP success**.	Training record is **below an acceptable level** relative to other applicants. HQP do not, in general, move on to positions that require skills obtained through training received. Plans for trainees are **not appropriate** or are **not described** with enough **information to predict likelihood of HQP success**.

[1]The Discovery Grants Merit Indicators should be used in conjunction with the Peer Review Manual (Chapter 6) which outlines how reviewers arrive at a rating.

Cost of Research[2]	High	Normal	Low
	Majority of justified expenses represent costs **higher than the norm** for the research area.	Majority of justified expenses are within the **norm** for the research area.	Majority of justified expenses are **lower than the norm** for the research area.

[2] Possible examples include: Cost of training of HQP; Equipment intensive research and/or high users fees; particularly expensive or frequent consumables; Travel (for collaborations, field work, access to facilities, conferences, …)

My tips...overall:

- Read the indicators carefully – they are referred to constantly in deliberation
- Know your EG membership, they are more important than your external reviewers (esp your primary and secondary reader)
- Help the reviewers navigate your CCV – e.g. use asterix / font to indicate HQP where possible
- Summarize CCV fields and highlight what's important

Group Chair:	Karen Kidd, UNB
Co-Chairs:	Frédéric Guichard, McGill University
	Jeannette Whitton, University of British Columbia

Jeff Bowman, Ontario Ministry of Natural Resources
Anne Bruneau, Université de Montréal
David Coltman, University of Alberta
Richard Cunjak, University of New Brunswick
Chantal Hamel, Agriculture and Agri-Food Canada
Lawrence Harder, University of Calgary
Andrew Iwaniuk, University of Lethbridge
Ladd Johnson, Université Laval
Esther Levesque, UQAM
Stephen Marshall, University of Guelph
Eliot McIntire, Natural Resources Canada (CFS)
George Newcombe, University of Idaho
Denis Reale, UQAM
Jonathan Seaquist, Lund University, Sweden
Andrew Simons, Carleton University
John Smol, Queen's University
William Taylor, University of Waterloo
Minus van Baalen, CNRS Université Pierre et Marie Curie, France
Linda Wahl, Western University
Tony Williams, Simon Fraser University

Program Officer: Brenda MacMurray, NSERC

Merit of Researcher

- Include contributions that are representative of your work and HQP, not just the highest IF ones
- Summarize impact indicators if you want them to be used – the EG can only use what is in your proposal
- Highlight other indicators of merit
- Explain your role in collaborations
- If you had delays, be clear on their impact

Outstanding	Very Strong	Strong
The accomplishments presented in the application were deemed to be **far superior** in quality, impact and/or importance to a **broad community**.	The accomplishments presented in the application were deemed to be of **superior** quality, impact and/or importance.	The accomplishments presented in the application were deemed to be **solid** in their quality, impact and/or importance.

Merit of Proposal

- Remember it is still a “program” not a project description
- Details are still important
- Use effective figures and text boxes to break up the document where appropriate
- Must have HQP roles well-defined
- Budget realistically, and ensure that budget matches activity

Outstanding	Very Strong	Strong
Proposed research program is clearly presented, is **highly original and innovative** and is **likely to have impact by contributing to groundbreaking advances** in the area, and/or **leading to a technology or policy** that addresses socio-economic or environmental needs. **Long-term goals are clearly defined and short-term objectives are well planned**. The methodology is **clearly described and appropriate**. The budget **clearly demonstrates** how the research activities to be supported are distinct from and complement those funded by other sources.	Proposed research program is clearly presented, is **original and innovative** and is **likely to have impact by leading to advancements** and/or addressing socio-economic or environmental needs. **Long-term goals are defined and short-term objectives are planned**. The methodology is **clearly described and appropriate**. The budget **demonstrates** how the research activities to be supported are distinct from and complement those funded by other sources.	Proposed research program is clearly presented, is **original and innovative** and is **likely to have impact** and/or address socio-economic or environmental needs. **Long-term goals and short-term objectives are clearly described**. The methodology is **described and appropriate**. The budget **demonstrates** how the research activities to be supported are distinct from and complement those funded by other sources.

Merit of HQP

- Quality counts as much as quantity, be sure to showcase information on their merit
- Talk about individuals, not just numbers
- All HQP levels are considered important
- Describe where your HQP progress to after you have trained them
- Training philosophy / plan environment is important
- Ensure that HQP activity is integrated in the proposal and detailed – feasible and appropriate

Outstanding	Very Strong	Strong
Training record is **far superior** to other applicants, with HQP contributing to high-**quality research**. **Most** HQP move on to positions that require **highly desired skills**, obtained through training received. Research plans for trainees are **appropriate and clearly defined**. HQP success **highly likely**.	Training record is **superior** to other applicants, with HQP contributing to **quality, original research**. **Many** HQP move on to appropriate positions that require **desired skills**, obtained through training received. Research plans for trainees are **appropriate and clearly described**. HQP success is **likely**.	Training record compares **favourably** with other applicants. HQP **generally** move on to positions that require **desired skills**, obtained through training received. Research plans for trainees are **appropriate and described**. HQP success is **likely**.