

# NSERC Discovery Grants Program



**DALHOUSIE**  
UNIVERSITY



*Dalhousie University is located in Mi'kma'ki, the  
ancestral and unceded territory of the Mi'kmaq.  
We are all Treaty people.*



*Dalhousie acknowledges the histories, contributions, and legacies of the African Nova Scotia people and communities who have been here for over 400 years.*

# Overview

- DAL ORS timeline and overview
- Discovery Grants Program overview
- Understanding peer review process and evaluation criteria
- NOI and full application

# **Office of Research Services**

# How to succeed in 15 words

- Start **early**
- Follow the **review criteria**
- Get **internal review**
- **Convince** the panel to fund you

# What you need to start **NOW** (if you haven't already)

- Create your NOI in the [NSERC On-Line portal](#)
- Create / update your Canadian Common CV
- Start developing an outline of your proposal
- [Critical Deadlines](#):
  - | August 1, 2023 (Notification of Intent to Apply to NSERC)
  - | October 11, 2023 (Internal Review -- Submit Full Application using Investigator Checklist via ROME0)
  - | November 1, 2023 (Full Application to NSERC)

# The big picture

- NSERC DG supports a *program* of research, not a self-contained *project*, in the natural sciences and / or engineering
- Your proposal needs to contain exceptional science. It is some of the **least constrained funding** most researchers acquire
- Three evaluation criteria:
  - | **Excellence of the researcher**
  - | **Merit of the Proposal**
  - | **Contributions to Training of HQP\***

\*HQP = Highly Qualified Personnel: students, postdoc, and research associates



# Equity, Diversity, Inclusion, & Accessibility - People AND Research -

“The agencies are committed to:

Supporting equitable access to funding opportunities for all researchers and trainees

Promoting the integration of equity, diversity and inclusion-related considerations in research design and practices

Increasing equitable and inclusive participation in the research system, including on research teams”

Don't just say “I welcome students from all groups into my lab” (as opposed to...?)  
What proactive steps will you take?

NSERC DG EDI Information Session (hosted by Dal): May 30,  
2023, 10:00-11:00 AM

[https://www.dal.ca/dept/research-services/about/Deadlines%20and%20Events/2023/05/30/nserc\\_discovery\\_grant\\_information\\_session\\_edi\\_in\\_nserc\\_dg\\_virtual\\_session.html](https://www.dal.ca/dept/research-services/about/Deadlines%20and%20Events/2023/05/30/nserc_discovery_grant_information_session_edi_in_nserc_dg_virtual_session.html)

# Resources

- EDIA – SSHRC/NFRF has a valuable guide to EDIA in research; provides useful examples of best practices
  - | SSHRC/NFRF: <https://www.sshrc-crsh.gc.ca/funding-financement/nfrf-fnfr/edi-eng.aspx>
  - | Dalhousie: <https://www.dal.ca/dept/research-services/resources/equity--diversity--and-inclusion---research-resources.html>
  - | Tri-Agency Statement: [https://www.nserc-crsng.gc.ca/NSERC-CRSNG/EDI-EDI/index\\_eng.asp](https://www.nserc-crsng.gc.ca/NSERC-CRSNG/EDI-EDI/index_eng.asp)
  - | NSERC Guide: [https://www.nserc-crsng.gc.ca/NSERC-CRSNG/Policies-Politiques/EDI\\_guidance-Conseils EDI\\_eng.asp](https://www.nserc-crsng.gc.ca/NSERC-CRSNG/Policies-Politiques/EDI_guidance-Conseils EDI_eng.asp)
  
- Using ROMEo to Submit a Grant Application
  - | Videos: <https://www.dal.ca/dept/research-services/resources/how-to-videos.html>
  - | Guide: <https://cdn.dal.ca/content/dam/dalhousie/pdf/research-services/ResearcherPortalAssets/Investigator%20Checklist%20-%20Grants%20and%20Contracts.pdf>

# Resources

- Indigenous Research Resources  
| <https://www.dal.ca/dept/research-services/resources/indigenous-research-resources.html>
- Research Data Management Plan  
| <https://libraries.dal.ca/services/research-data-management.html>
- Safe Guarding Your Research  
| <https://science.gc.ca/site/science/en/safeguarding-your-research>

# Discovery Grants Program overview

# What is NSERC DG program?

- NSERC's largest and longest-standing program-since 1978 (first Operating Grants; then Research Grants)
- Discovery Grants supports ongoing research programs **with long-term goals**, rather than a single short-term project or collection of projects;
- Discovery Grants give researchers the **flexibility** to explore the most promising avenues of research as they emerge;
- Discovery Grants are nationally recognized as a measure of excellence.

# Type of applicants

## **Early career researchers (ECR):**

➤ Applicants who had held an independent academic position for 5 years or less at the time of submitting the Notification of Intent (NOI); eligible leaves are credited as twice the amount taken.

➤ ECRs need to self-identify on the Research Portal at the Full Application stage by completing the Applicant Category module;

## **Established researchers (ER):**

➤ Applicants who have held an independent academic position for more than 5 years.

# COVID-19 extension with funds

- All active Discovery Grants (April 2020 start date) can elect to receive a one-year extension with funds at their current funding level
- NSERC will contact eligible PIs directly in June via email
- PIs must accept the offer- this is not automatic
- ECRs will be offered first the ECR extension, followed by Covid-19 extension

# DND supplement

<b>Value</b>	\$120,000 over three years
<b>How to apply</b>	Applicants must indicate their interest and provide written justification of how their proposed research falls within the DND target areas
<b>Objectives</b>	Support unclassified university-based research dedicated to the development of non-weapon specific technologies with dual-use applications in defence and security target areas
<b>Target Areas</b>	Autonomous Systems; Information Management and Data Science for Decision Making; Decision Making Enhancement in Distributed Environments Advanced Sensing; Resilient Networked Systems; Explosive Hazard Avoidance, Blast Characterization and Mitigation; Next Generation Systems, Materials and Signatures



# Northern Research Supplements (NRS)

<b>Value</b>	\$10,000 to \$25,000/year for duration of the DG
<b>How to apply</b>	Apply as part of DG application within Research Portal. By selecting NRS, you will be given access to a budget table and two additional attachments for the submission of your NRS Budget Justification and Proposal/References documents.
<b>Objectives</b>	To augment and promote Canadian university-based northern research, training, and outreach by recognizing the added costs unique to conducting research in the Canadian North

# Understanding Peer Review Process And Evaluation Criteria

# Evaluation Groups

1. Genes, Cells and Molecules (1501)
2. Biological Systems and Functions (1502)
3. Evolution and Ecology (1503)
4. Chemistry (1504)
5. Physics (1505)
6. Geosciences (1506)
7. Computer Science (1507)
8. Mathematics and Statistics (1508)
9. Civil, Industrial and Systems Engineering (1509)
10. Electrical and Computer Engineering (1510)
11. Materials and Chemical Engineering (1511)
12. Mechanical Engineering (1512)

# Dal DG EG members

- 1501** GCS: Fraser Clark (Animal Science and Aquaculture) & Paola Marignani (Biochemistry and Molecular Biology)
- 1502** BSF: Aaron Newman (Psychology and Neuroscience) & Paivi Torkkeli (Physiology and Biophysics)
- 1503** EE: Suzanne Budge (Process Engineering and Applied Science)
- 1505** Physics: Kimberly Brewer (Diagnostic Radiology)
- 1506** Geosci.: Manuel Helbig (Physics & Atmospheric Science)
- 1507** Comp. Sci.: Malcolm Heywood (Computer Science)
- 1509** CISE: Muhammad Habib (School of Planning)
- 1510** ECE: Michael Cada (Electrical and Computer Engineering)
- 1511** MEC: Paul Amyotte and Adam Donaldson (Process Engineering and Applied Science)
- 1512** ME: Dominic Groulx (Mechanical Engineering)

# Selection Criteria and Merit Indicators

1. **Assessment** based on three equally weighted criteria:
  - ✓ Excellence of the Researcher
  - ✓ Merit of the Proposal
  - ✓ Contributions to Training of Highly Qualified Personnel
  
2. **Merit indicators** – six-point scale:
  - ✓ Exceptional (E)
  - ✓ Outstanding (O)
  - ✓ Very Strong (VS)
  - ✓ Strong (S)
  - ✓ Moderate (M)
  - ✓ Insufficient (I)

# Merit indicators

## DISCOVERY GRANTS MERIT INDICATORS

The Merit Indicators should be used in conjunction with the Peer Review Manual, which outlines how reviewers arrive at a rating.

	EXCEPTIONAL	OUTSTANDING	VERY STRONG	STRONG	MODERATE	INSUFFICIENT
Excellence of the Researcher	Acknowledged as a <b>leader</b> in terms of research excellence, accomplishments, and service.	Research excellence, accomplishments, and service are <b>far superior</b> to others.	Research excellence, accomplishments, and service are <b>superior</b> to others.	Research excellence, accomplishments, and service are <b>significant</b> .	Research excellence, accomplishments, and service are <b>reasonable</b> .	Research excellence, accomplishments, and service are <b>below an acceptable level</b> .
	Contributions presented in the application are of the <b>highest level of quality</b> .	Contributions presented in the application are of <b>high quality</b> .	Contributions presented in the application are <b>above average</b> in quality.	Contributions presented in the application are of <b>good</b> quality.	Contributions presented in the application are of <b>reasonable</b> quality.	Contributions presented in the application are <b>limited</b> in quality.
	Impact and importance of the work is <b>clearly evident and groundbreaking</b> .	Impact and importance of the work is <b>clearly evident</b> and <b>influential</b> .	Impact and importance of the work is <b>clearly evident</b> .	Impact and importance of the work is <b>evident</b> .	Impact and importance of the work is <b>somewhat evident</b> .	Impact and importance of the work is <b>not clearly evident</b> .
Merit of the Proposal	Proposed research program is clearly presented, is <b>extremely original and innovative</b> and is <b>likely to have impact</b> by <b>leading to groundbreaking advances</b> in the area and/or <b>leading to a technology or policy</b> that addresses socio-economic or environmental needs.  Long-term vision and short-term objectives are clearly defined.  The methodology is <b>clearly defined</b> and <b>appropriate</b> .	Proposed research program is clearly presented, is <b>highly original and innovative</b> and is <b>likely to have impact</b> by <b>contributing to groundbreaking advances</b> in the area, and/or <b>leading to a technology or policy</b> that addresses socio-economic or environmental needs.  Long-term goals are clearly defined and short-term objectives are well <b>planned</b> .  The methodology is <b>clearly described</b> and <b>appropriate</b> .	Proposed research program is clearly presented, is <b>original and innovative</b> and is <b>likely to have impact</b> by <b>leading to advancements</b> and/or addressing socio-economic or environmental needs.  Long-term goals are <b>defined</b> and short-term objectives are <b>planned</b> .	Proposed research program is clearly presented, is <b>original and innovative</b> and is <b>likely to have impact</b> and/or address socio-economic or environmental needs.  Long-term goals and short-term objectives are clearly described.  The methodology is <b>described</b> and <b>appropriate</b> .	Proposed research program is clearly presented, has <b>original and innovative aspects</b> and may have impact and/or address socio-economic or environmental needs.  Long-term and short-term objectives are <b>described</b> .  The methodology is <b>partially described</b> and/or <b>appropriate</b> .	Proposed research program, as presented <b>lacks clarity</b> , and/or is of <b>limited originality and innovation</b> .  Objectives are <b>not clearly described</b> and/or likely not attainable.  The methodology is <b>not clearly described</b> and/or <b>appropriate</b> .  The application <b>does not clearly demonstrate</b> how the research activities to be supported are distinct from those funded (or applied for) by other sources.
	The application <b>clearly demonstrates</b> how the research activities to be supported are distinct from those funded (or applied for) by other sources.					
	The application <b>clearly demonstrates</b> how the research activities to be supported are distinct from those funded (or applied for) by other sources.					
Training of Highly Qualified Personnel	Past training is at the <b>highest level</b> in terms of the research training environment provided and HQP contributions to research.	Past training is <b>far superior</b> to other applicants in terms of research training environment provided and HQP contributions to research.	Past training is <b>superior</b> to other applicants in terms of the research training environment provided and HQP contributions to research.	Past training compares <b>favourably</b> with other applicants in terms of the research training environment provided and HQP contributions to research.	Past training is <b>modest</b> relative to other applicants in terms of the research training environment provided and HQP contributions to research.	Past training is <b>below an acceptable level</b> in terms of the research training environment provided and HQP contributions to research.
	Most HQP move on to <b>highly impactful</b> positions that require skills gained through the training received.  Training philosophy and research training plans are of the <b>highest quality: highly appropriate, clearly defined</b> and expected to produce <b>top quality</b> results in terms of the overall approach and specific projects for HQP.	Most HQP move on to <b>impactful</b> positions that require skills gained through the training received.  Training philosophy and research training plans are <b>far superior: highly appropriate, clearly defined</b> and expected to produce <b>high quality</b> results in terms of the overall approach and specific projects for HQP.	HQP <b>generally</b> move on to <b>impactful</b> positions that require skills gained through the training received.  Training philosophy and research training plans are <b>superior: highly appropriate, clearly defined</b> and expected to produce <b>quality</b> results in terms of the overall approach and specific projects for HQP.	HQP <b>generally</b> move on to positions that require skills gained through the training received.  Training philosophy and research training plans are <b>appropriate and clearly defined</b> in terms of the overall approach and specific projects for HQP.	<b>Some</b> HQP move on to positions that require skills gained through the training received.  Training philosophy and research training plans are <b>partially appropriate and partially defined</b> in terms of the overall approach and specific projects for HQP.	HQP <b>rarely</b> move on to positions that require skills gained through the training received.  Training philosophy and research training plans are <b>not appropriate and not clearly defined</b> in terms of the overall approach and specific projects for HQP.
	Challenges related to equity, diversity and inclusion specific to the institution <b>and</b> field of research are <b>clearly described</b> .	Challenges related to equity, diversity and inclusion specific to the institution <b>and</b> field of research are <b>described</b> .	Challenges related to equity, diversity and inclusion specific to the institution <b>and</b> field of research are <b>described</b> .	Challenges related to equity, diversity and inclusion specific to the institution <b>and/or</b> field of research are <b>described</b> .	Challenges related to equity, diversity and inclusion specific to the institution <b>and/or</b> field of research are <b>partially described</b> .	Challenges related to equity, diversity and inclusion specific to the institution <b>and/or</b> field of research are <b>inaccurate or not described</b> .
	Specific actions to support the recruitment of a diverse group of HQP <b>and</b> an inclusive research training environment are <b>clearly defined</b> .	Specific actions to support the recruitment of a diverse group of HQP <b>and</b> an inclusive research training environment are <b>defined</b> .	Specific actions to support the recruitment of a diverse group of HQP <b>and</b> an inclusive research training environment are <b>defined</b> .	Specific actions to support the recruitment of a diverse group of HQP <b>and/or</b> an inclusive research training environment are <b>defined</b> .	Specific actions to support the recruitment of a diverse group of HQP <b>and/or</b> an inclusive research training environment are <b>partially defined</b> .	Specific actions to support the recruitment of a diverse group of HQP <b>and/or</b> an inclusive research training environment are <b>not appropriate or not defined</b> .

# Rating Form

## Discovery Grants Rating Form

<b>Applicant:</b>	<b>Applicant status:</b> ECR/ER		
<b>University:</b>			
<b>Title of proposal:</b>			
<b>Selection criteria</b> (See <a href="#">DG Peer Review Manual</a> for complete details)			
<b>Excellence of the researcher</b>	<input type="checkbox"/> <b>Exceptional</b>	<input type="checkbox"/> <b>Outstanding</b>	<input type="checkbox"/> <b>Very Strong</b>
	<input type="checkbox"/> <b>Strong</b>	<input type="checkbox"/> <b>Moderate</b>	<input type="checkbox"/> <b>Insufficient</b>
<ul style="list-style-type: none"><li>• Knowledge, expertise, and experience of the researcher in the NSE</li><li>• Quality and impact of contributions to the proposed research and/or other areas of research in the NSE</li><li>• Importance of contributions to, and use by, other research and end-users</li></ul>			

# Rating Form

Merit of the proposal	<input type="checkbox"/> Exceptional	<input type="checkbox"/> Outstanding	<input type="checkbox"/> Very Strong
	<input type="checkbox"/> Strong	<input type="checkbox"/> Moderate	<input type="checkbox"/> Insufficient
<ul style="list-style-type: none"> <li>• Originality and innovation</li> <li>• Significance and expected contributions to NSE research; potential for policy- and/or technology-related impact</li> <li>• Clarity and scope of objectives</li> <li>• Clarity and appropriateness of methodology</li> <li>• Feasibility</li> <li>• Extent to which the scope of the proposal addresses all relevant issues</li> <li>• Consideration of sex, gender and diversity in the research design, if applicable to the field</li> <li>• Consideration of interdisciplinary methods or practices in research</li> <li>• Appropriateness of, and justification for, the budget</li> <li>• Demonstration that the DG proposal is distinct conceptually from research supported (or submitted for support) through CIHR and/or SSHRC</li> <li>• Clear explanation why DG funding is essential to carry out the research proposed in the DG application (for applicants who hold or receive funds from a <a href="#">CIHR Foundation Grant</a>)</li> </ul>			



# Rating Form

Contributions to the training of highly qualified personnel	<input type="checkbox"/> Exceptional	<input type="checkbox"/> Outstanding	<input type="checkbox"/> Very Strong
	<input type="checkbox"/> Strong	<input type="checkbox"/> Moderate	<input type="checkbox"/> Insufficient
<ul style="list-style-type: none"><li>• Quality and impact of past training<ul style="list-style-type: none"><li>• Training environment</li><li>• HQP awards and research contributions</li><li>• Outcomes and skills gained by HQP</li></ul></li><li>• Quality, suitability and clarity of the planned training<ul style="list-style-type: none"><li>• Training philosophy<ul style="list-style-type: none"><li>• Mentorship approach and enhancement of the research and training environment</li><li>• Challenges or barriers to inclusion and advancement of under-represented groups</li><li>• Planned approach to promote participation of a diverse group of HQP</li></ul></li></ul></li><li>• Research training plan for individual HQP</li></ul>			

**Other comments** (e.g., eligible delays that were considered, quality of samples of contributions provided, etc.):

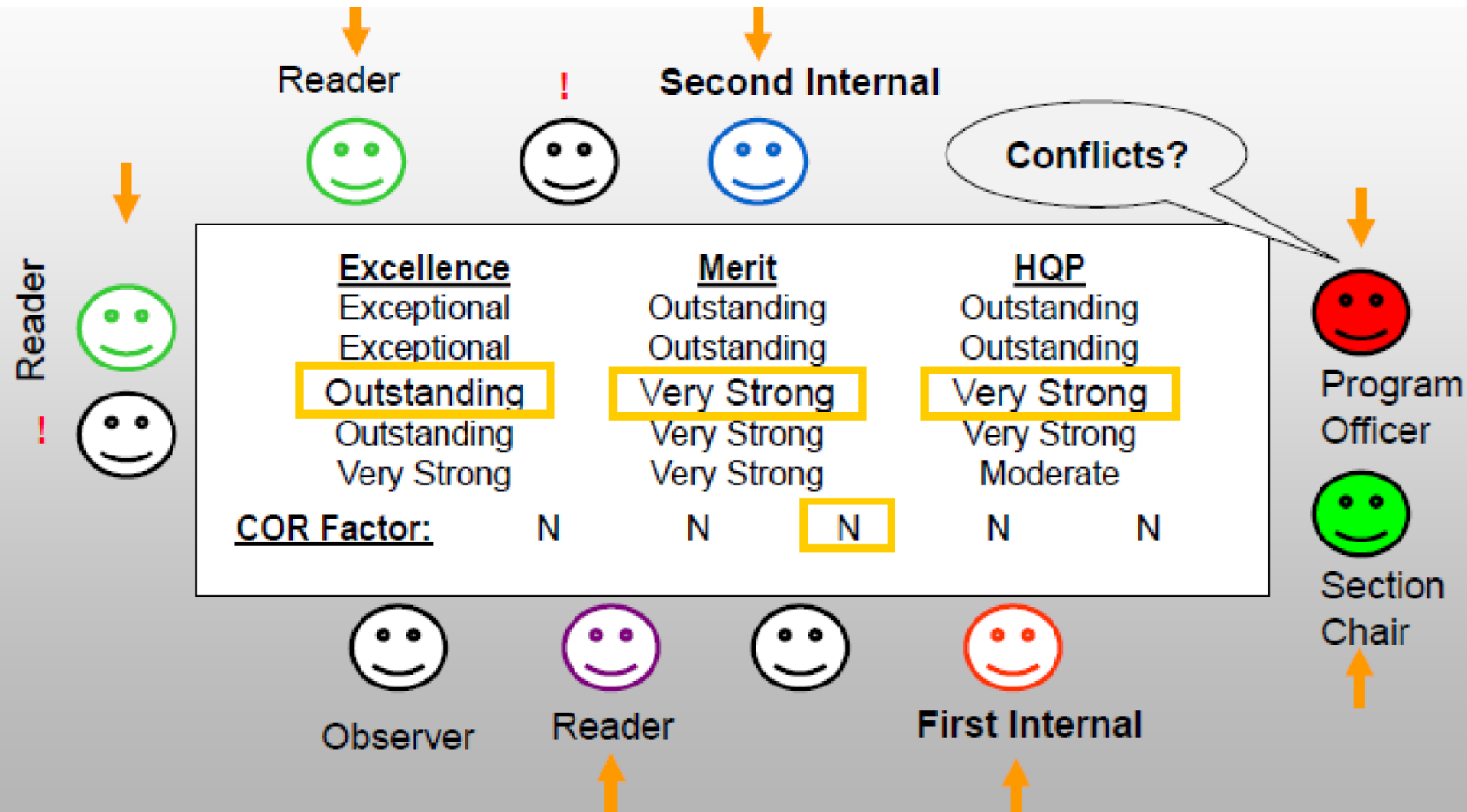
**Comments from external referees** (please highlight any comments that would be deemed inappropriate for the members to have considered in their discussions, undisclosed COI, reports to be disregarded, etc.):

**Message to the applicant:**

# Peer review process

- Evaluation Group (EG) members are professors from Canadian (and international) universities, as well as government and private sector scientists and engineers.
- Members are assigned to various sections (or applications) based on the match between **their expertise** and application **subject matter**;
- **5 EG** members read and rate your application
- External readers provide report on Researcher Excellence and Proposal
- Members from different EGs could participate in the review of any application, if required to ensure a comprehensive review (referred to as joint review)

# Review process



# EG Members Voting

## Step 1: Merit assessment

	Exceptional	Outstanding	Very Strong	Strong	Moderate	Insufficient
Excellence of the researcher	X X	X X	X			
Merit of the proposal		X X	X X X			
Contribution to the training of HQP		X X	X X		X	



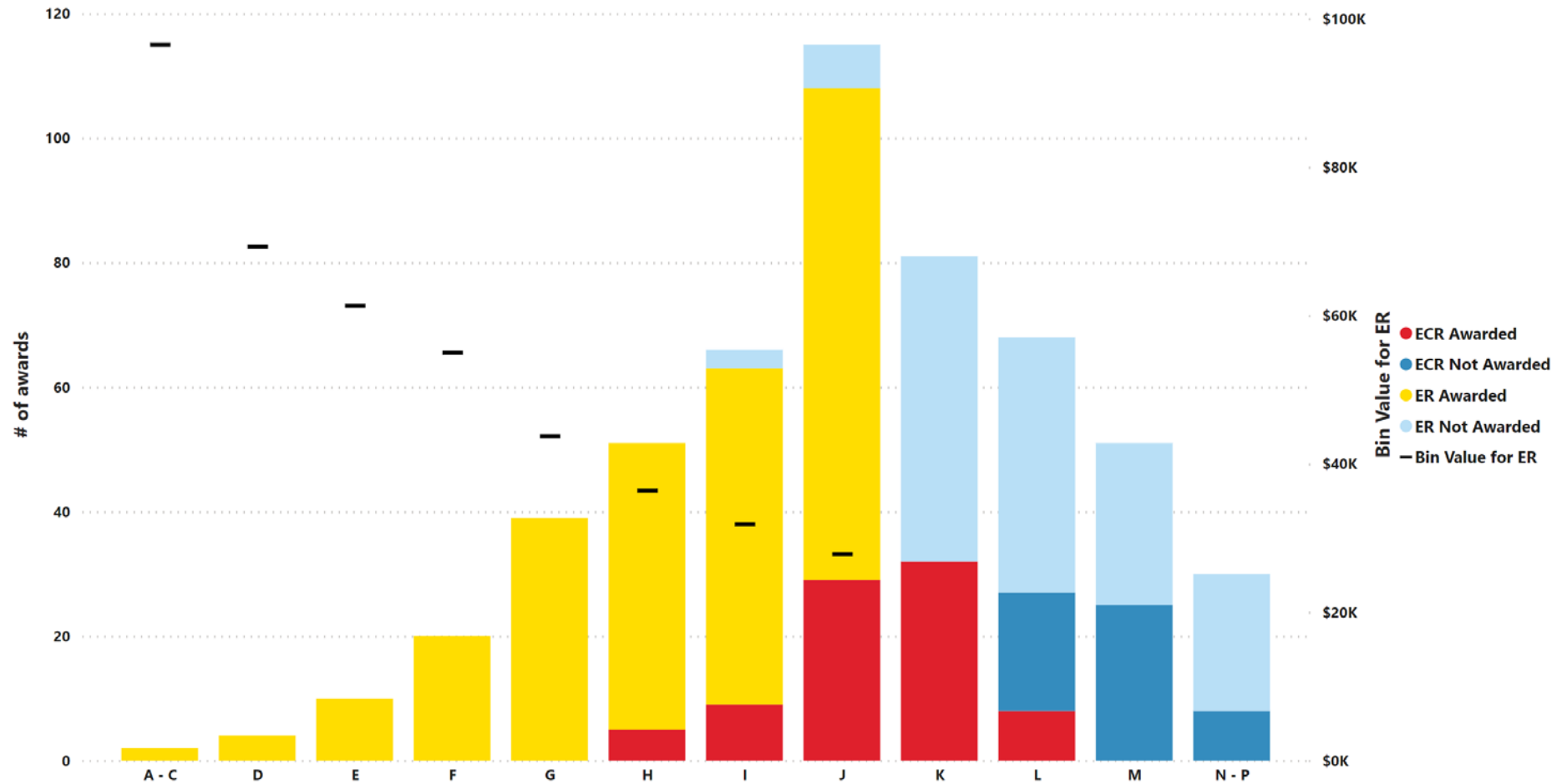
Outstanding – Very Strong – Very Strong



## Step 2: Funding Recommendation

Funding Bin	A	B	C	D	E	<b>F</b>	G	H	I	J	K	...	P
Value	...\$	...\$	...\$	...\$	...\$	...\$	...\$	...\$	...\$	...\$	...\$	...\$	...\$

# DAL's quality bin distribution 2016-2022



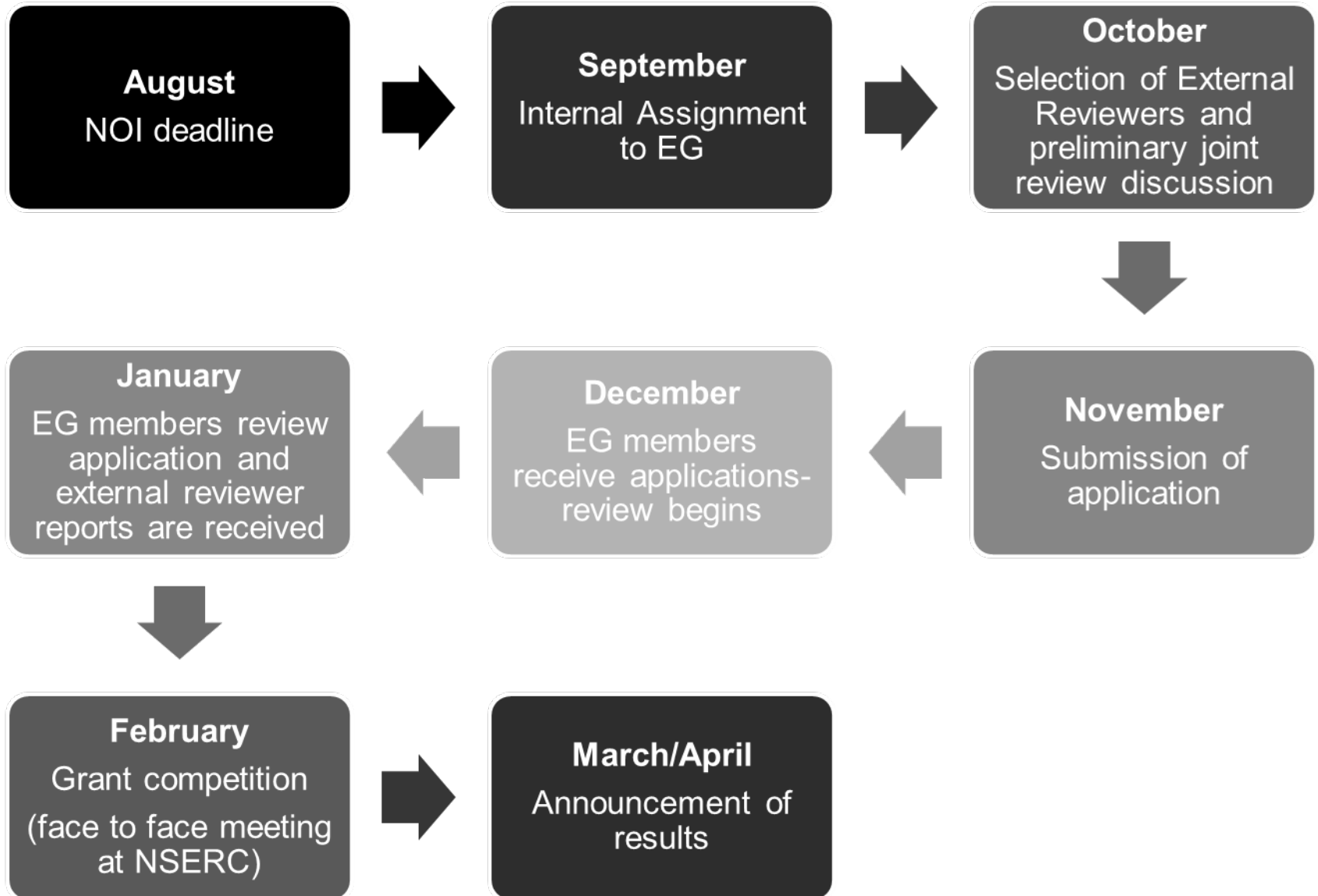
[Source: NSERC Competition Statistics Dashboard](#)

# 2023 Competition update

- Established researcher (ER): **V S S (bin I)**
- ER first renewal (transition from ECR to ER): **S S S (bin J)**
- ECR: same as before: **S S M (bin K)** or **S M M (bin L)**

**NOI  
and  
Full application**

# DG life cycle





# NOI components

- **CCV** – past 6 years of HQP training, research funding and contributions
- **NOI** (Research Portal):
  - Select appropriate research topic (1<sup>st</sup> from suggested EG, others may be from other EGs)
  - Summary of proposal (objectives, methods and impact)
  - Suggested reviewers
  - Exclusions

*The NOI purpose is to assign internal reviewers and external readers*

**Deadline: Tuesday, August 1, 2023, 8:00 p.m. (ET)**

# Full application-Evaluation Criteria

- Scientific or Engineering Excellence of the Researcher
- Merit of the Proposal
- Training of Highly Qualified Personnel

# Rating Form: Excellence of the Researcher

<b>Knowledge, expertise and experience</b>	Stature in the field: awards and prizes; invitations to lectures, write review articles and chair conference sessions; membership on committees, editorial boards and advisory boards; public outreach activities; <b>contributions to the promotion of EDI in the research enterprise;</b>
<b>Quality and impact of contributions (examples)</b>	publications; conference presentations and/or proceedings; books or book chapters; patents or technology transfer; technical reports; and/or other methods of dissemination as appropriate to the type of research.
<b>Importance of contributions to, and use by, other researchers and end-users.</b>	the extent to which the applicant's work has advanced the field (i.e., created significant changes in thought within the research area, impacted public policy, promoted the inclusion and advancement of under-represented groups in research, and/or influenced activities of users such as industry or the general public); and/or the extent of contributions to the development of standards or codes of practice.

# Excellence of the Researcher

Members will assess this criterion using information from:

## 1. CCV

- Recognitions (honors, prizes and awards, etc.)
- Activities (international collaborations, event administration,
  - editorial activities, organizational review, knowledge and
  - technology transfers, etc.)
- Memberships (service on committees)
- Contributions (publications, books, patents, etc.)
- Delays (indicate dates and nature of delay)

## 2. Application

- Most Significant Contributions
- Additional Information on Contributions
- Samples of research contributions (up to 4 attached with application)

# Most Significant Contributions to Research

- Up to 5 most significant contributions over the last **6 years**
- One contribution could be a group of publications on a specific subject
- For each contributions, describe the following:
  1. Significance of results (**assume non-expert audience, provide enough information**)
  2. Significance to, and use by, other researchers (**evidence of impact**)
  3. For collaborative contributions, **describe your role**

Note:

- You may include the full reference to your contributions in this text box or provide the appropriate reference to your NSERC CCV.
- Provide dates and clearly explain the impact of any significant delays in the research activity or in the dissemination of research results.

# Additional information on contributions

Additional details to complement information provided in the CCV including:

- The nature of collaboration with other groups
- Your role in joint publication
- The order of authors and inclusion of HQP
- The reason for selecting certain venues for publication
- Impact or potential impact of intellectual property
- Significance of technical reports

# Samples of Research Contributions

- 4 samples of research contributions to be submitted electronically as PDF files;
- Contributions: reprints, preprints, manuscripts, technical reports, etc.;
- Used by reviewers to assess **the quality of your work**;
- Should represent your most significant and recent (6 years) contributions.

# Rating Form: Merit of the Proposal

<b>Originality and innovation</b>	Does the proposal suggest and explore novel or potentially transformative concepts and lines of inquiry?
<b>Significance and expected contributions to research</b>	Impact of proposed research; advancing knowledge in the field; impact on the peers, users...
<b>Clarity and scope of objectives</b>	Clearly articulate short- and long-term objectives
<b>Clarity and suitability of methodology</b>	Provide detailed methodology
<b>Feasibility</b>	Applicant's expertise, resources (ie, HQP, equipment, facilities), potential problems; mitigating measures,
<b>Extent to which the proposal addresses all relevant issues</b>	Recent progress related to the proposal; appropriate literature review;
<b>Budget justification</b>	Provide realistic budget
<b>Relationship to other sources of funding</b>	Overlapping sources of funding; other Tri-Council grants (CIHR, SSHRC); other agencies
<b>Consideration of sex, gender and diversity in the research design</b>	Rationale and methodology for including <b>sex, gender and diversity in the research design</b> are clearly described



# Merit of the Proposal

Members will assess this using information from:

- Research proposal
- List of references
- Proposed expenditures and budget justification
- Relationship to other research support

# Proposal

<b>Recent Progress</b>	Your recent progress related to the proposal; renewals-progress attributable to your previous Discovery Grant; don't have to repeat the MSC section; focus on work that this proposal is building on; make references to Sample Contributions attachments.
<b>Objectives</b>	Clearly articulate <b>short-(DG term)</b> and <b>long-term (your research program)</b> objectives.
<b>Literature Review</b>	Literature pertinent to the proposal; position the proposed research within the field and state-of-the-art; using "old" references tends to be criticized;
<b>Methodology</b>	Methods and proposed approach with enough details to demonstrate feasibility of proposed work; integrate HQP; consider your capacity, access to resources; expertise within the proposed research area (ie. consider collaborations); include sex and gender considerations (if applicable);
<b>Impact</b>	Anticipated significance of the work; contributions to your research field; contributions to other users; societal and economic impact, etc

# Budget and Budget Justification

**Salaries and benefits:** names, level of study, proposed salary, responsibilities and time involved on the project.

**Equipment or facility:** breakdown and justification of items requested; hours and rate for equipment or facility use

**Materials and supplies:** explain major items

**Travel:** relate travel to the proposed research

**Dissemination:** details of publication costs

**Other Expenses:** anything else not listed above

# Relationship to other research support

- Information on conceptual or financial relationship/difference between this application and all other support (**held or applied for**).
- Describe the main objective and provide a brief outline of the methodology, budget details, and details on support of HQP.
- For applicants who currently hold, or have applied for, research support from SSHRC or CIHR, **provide a summary and budget pages** of these proposals under “Supporting Documents” page.

# Rating Form: HQP training

<b>Past contributions to training during the last six years</b>	-Training environment -HQP awards and research contributions -Outcomes and skills
<b>Training Plan (this DG)</b>	-Training philosophy -HQP research training plan

## **HQP includes:**

- Undergraduate students involved in research;
- Graduate students and postdoctoral fellows;
- Technicians and research associates; and
- Other trainees from non-academic sectors, i.e. government or industry

# HQP training

Evaluation Group will assess HQP criterion using information from:

## **Application:**

- Past contributions to HQP training;
- HQP training plan.

## **CCV:**

- Supervisory activities and contributions;
- Trained HQP who co-authored should be identified with an asterisk (\*);
- Do not use “academic advisor”.

# Past Contributions to the Training of HQP

- 1. Training Environment:** participation and involvement of HQP in science outreach activities, interdisciplinary research, promoting EDI in the NSE, collaborations, and/or interaction with the private and public sectors

**Considerations of EDI in the training environment**, should include:

- discussion of **challenges or barriers** encountered in ensuring an inclusive research and training environment;
- a **qualitative** description of **specific actions** implemented to support equity and inclusion in recruitment practices, mentorship approaches, and initiatives aimed at ensuring an inclusive research and training environment and trainee growth.

**Important:** trainee demographic data is not requested, nor required to assess impacts related to EDI in the research and training environment.

# Past Contributions to the Training of HQP

## 2. Awards and research contributions:

- HQP collaboration in the applicant's research contributions (usually as co-authors), which can include conferences, presentations, publications, patents, and/or technical reports; and/or
- awards, scholarships and fellowships won by HQP.

## 3. Outcomes and skills:

- progression of HQP into further studies or careers that have impact, whether as professionals in the private, public sectors, and/or academia. Impact can be either in the NSE or not in the NSE, but it needs to be clear how the skills gained in the applicant's research training environment are being used by the HQP;
- professional development skills and experiences gained; and/or
- HQP completion degree requirements within a reasonable amount of time.



# HQP training plan –Very Important for ECRs

Should only contain information pertaining to training plans and consist of the **Training Philosophy and Research Training Plan**.

## 1. Training Philosophy:

- A qualitative description of **existing challenges or barriers** to the inclusion and advancement of under-represented groups in the NSE, which are specific to the context of the applicant's program of research;
- The planned approach **to promoting the participation of a diverse** group of HQP, taking into account equity and inclusion in recruitment practices, mentorship approaches and initiatives aimed at ensuring an inclusive research and training environment and trainee growth.

# HQP training plan

## 2. Research training plan

- Appropriateness of the level and mix of HQP for the proposed program and its anticipated projects (e.g., are the projects suitable for an undergraduate student, a master's student, PhD candidate, or postdoctoral fellow?);
- Description of anticipated outcomes in terms of future contribution to NSE knowledge and the training value of the proposed projects;
- Explanation of how the work will contribute to the development of new skills or knowledge; and/or
- Capacity of the researcher to supervise the proposed number and type of HQP.

# Resource videos

## Resource Videos



([http://www.nserc-crsng.gc.ca/Professors-Professeurs/Videos-Videos/NOI-AI\\_eng.asp](http://www.nserc-crsng.gc.ca/Professors-Professeurs/Videos-Videos/NOI-AI_eng.asp))

**Create a Notification of Intent to Apply for a Discovery Grant (NOI) application in the Research Portal** ([http://www.nserc-crsng.gc.ca/Professors-Professeurs/Videos-Videos/NOI-AI\\_eng.asp](http://www.nserc-crsng.gc.ca/Professors-Professeurs/Videos-Videos/NOI-AI_eng.asp))

This set of videos has been created to assist researchers to submit an NOI application through the Research Portal. Each video represents a step in the application process and complement the **Instructions**

([http://www.nserc-crsng.gc.ca/ResearchPortal-PortailDeRecherche/Instructions-Instructions/DG\\_NOI-AI\\_SD\\_eng.asp](http://www.nserc-crsng.gc.ca/ResearchPortal-PortailDeRecherche/Instructions-Instructions/DG_NOI-AI_SD_eng.asp)).



([http://www.nserc-crsng.gc.ca/Professors-Professeurs/Videos-Videos/DG-Tutorial-Tutoriel-SD\\_eng.asp](http://www.nserc-crsng.gc.ca/Professors-Professeurs/Videos-Videos/DG-Tutorial-Tutoriel-SD_eng.asp))

**Submitting an NSERC individual Discovery Grant application through the Research Portal**

([http://www.nserc-crsng.gc.ca/Professors-Professeurs/Videos-Videos/DG-Tutorial-Tutoriel-SD\\_eng.asp](http://www.nserc-crsng.gc.ca/Professors-Professeurs/Videos-Videos/DG-Tutorial-Tutoriel-SD_eng.asp))

This set of videos has been created to assist researchers to submit an NSERC individual Discovery Grants application through the Research Portal. Each video represents a step in the application process and

complement the **Instructions** ([http://www.nserc-crsng.gc.ca/ResearchPortal-PortailDeRecherche/Instructions-Instructions/DG-SD\\_eng.asp](http://www.nserc-crsng.gc.ca/ResearchPortal-PortailDeRecherche/Instructions-Instructions/DG-SD_eng.asp)).



([http://www.nserc-crsng.gc.ca/Professors-Professeurs/Videos-Videos/DGTips\\_eng.asp](http://www.nserc-crsng.gc.ca/Professors-Professeurs/Videos-Videos/DGTips_eng.asp))

**Tips on applying for an NSERC Discovery Grant** ([http://www.nserc-crsng.gc.ca/Professors-Professeurs/Videos-Videos/DGTips\\_eng.asp](http://www.nserc-crsng.gc.ca/Professors-Professeurs/Videos-Videos/DGTips_eng.asp))

This video provides practical tips to help applicants write a better proposal for an NSERC Discovery Grant. It features interviews with members of the Evaluation Groups that review applications.

**NOTE: Some of the interviews were conducted in French. To see the English subtitles, turn on the closed captioning feature.**



([http://www.nserc-crsng.gc.ca/Professors-Professeurs/Videos-Videos/DG\\_eng.asp](http://www.nserc-crsng.gc.ca/Professors-Professeurs/Videos-Videos/DG_eng.asp))

**Demystifying the review process for NSERC Discovery Grants** ([http://www.nserc-crsng.gc.ca/Professors-Professeurs/Videos-Videos/DG\\_eng.asp](http://www.nserc-crsng.gc.ca/Professors-Professeurs/Videos-Videos/DG_eng.asp))

This video describes the various steps of the peer review process for each application for an NSERC Discovery Grant.

# Final Advice

- Consult the [Peer Review Manual](#) (Chapter 4)
- Read [Guidelines on the assessment of contributions to research, training and mentoring](#)
- **Read the instructions** carefully, follow the presentation standards
- Remember: more than one audience reads your application
- Ask for help (colleagues, research facilitators)
- Read other successful proposals
- Ensure completeness of your application

# Communications

- Dr. James Karle, Research Grants Facilitator
  - Office of Research Services | Dalhousie University
  - Email: [j.karle@dal.ca](mailto:j.karle@dal.ca) | Phone: 902-494-4343
- Dr. Inga Slišković, Research & Partnerships Facilitator – Contact for Science
  - Faculty of Science & Office of Research Services | Dalhousie University
  - Email: [inga.sliskovic@dal.ca](mailto:inga.sliskovic@dal.ca) | Phone: 902-431-0425

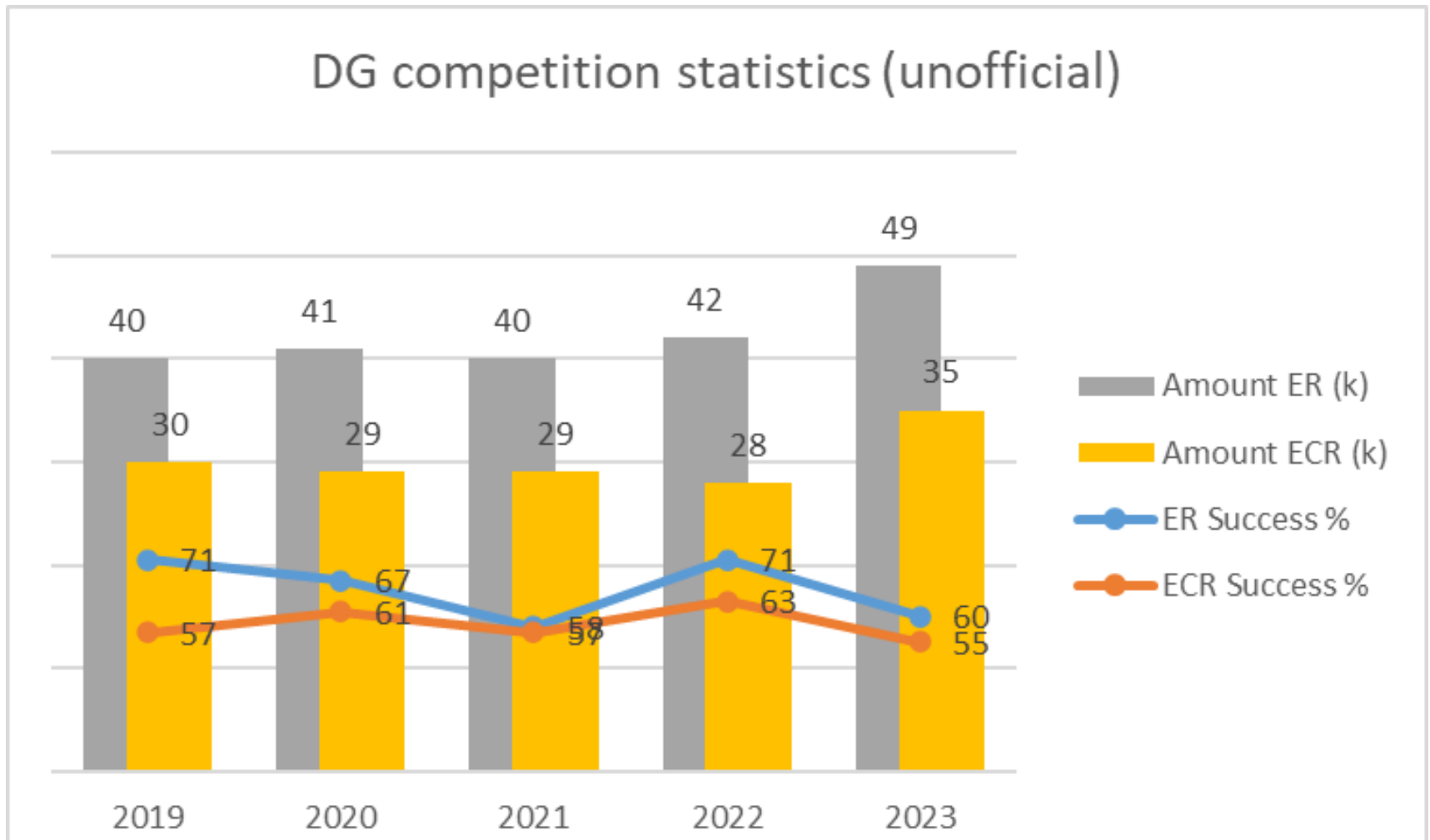
Thank you!

# Statistics

# DG competition statistics (unofficial)

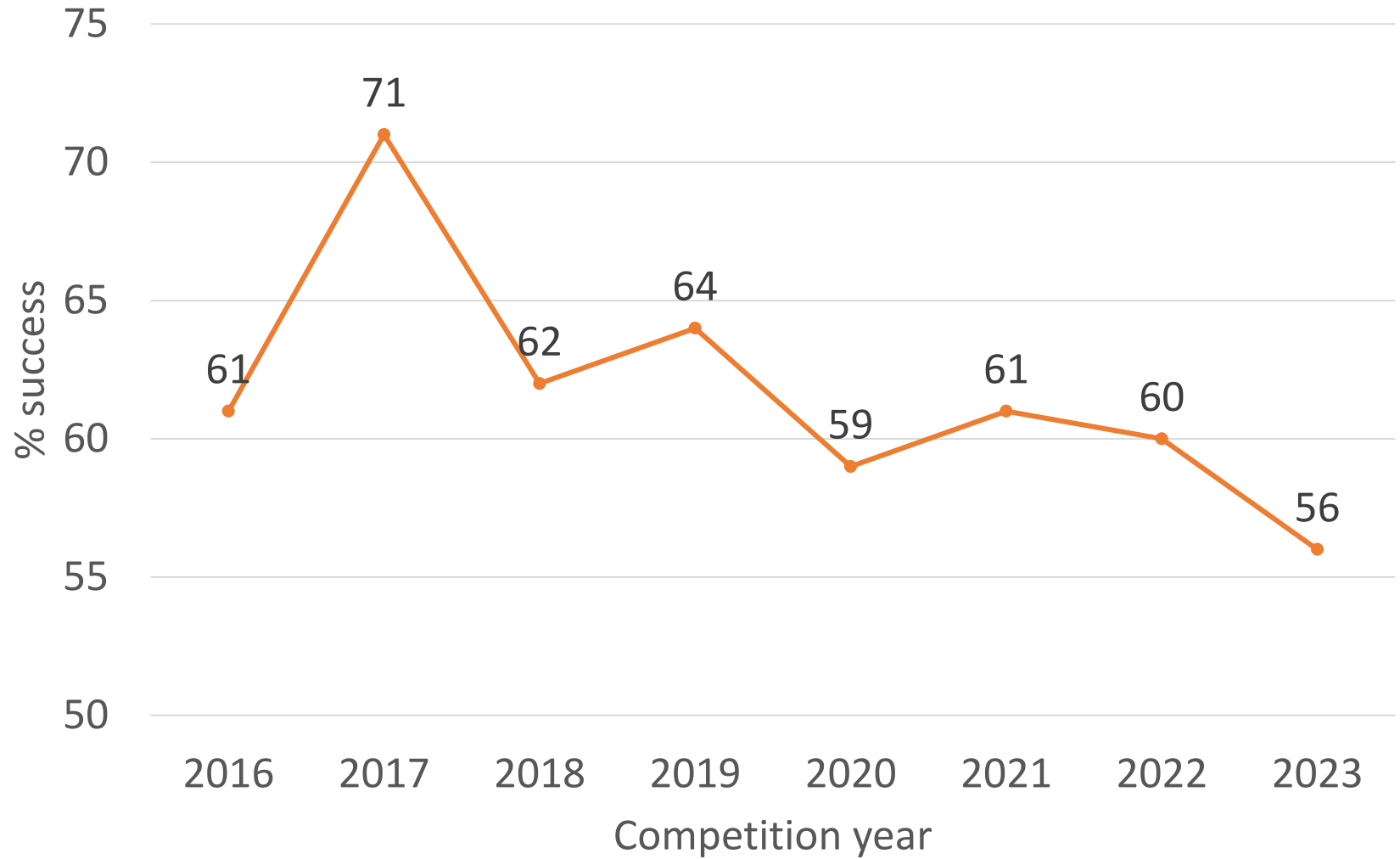
Discovery Grants offered \$73.6M in new awards

- 2802 applications; 1,635 awards
- 2023 cohort is approx. 85% the size of a typical competition

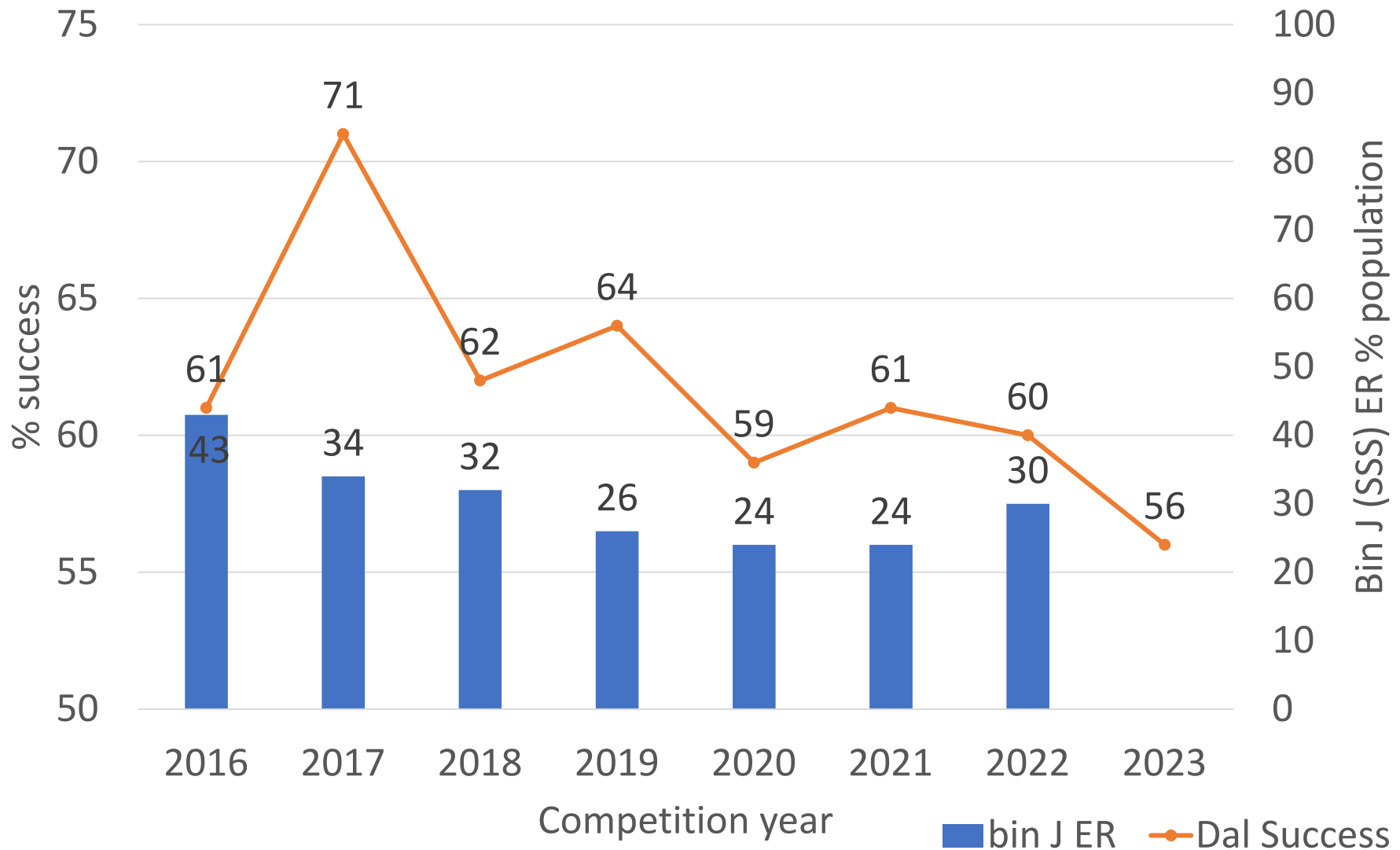




# Dal DG success rate



# Dal DG success rate and Bin J



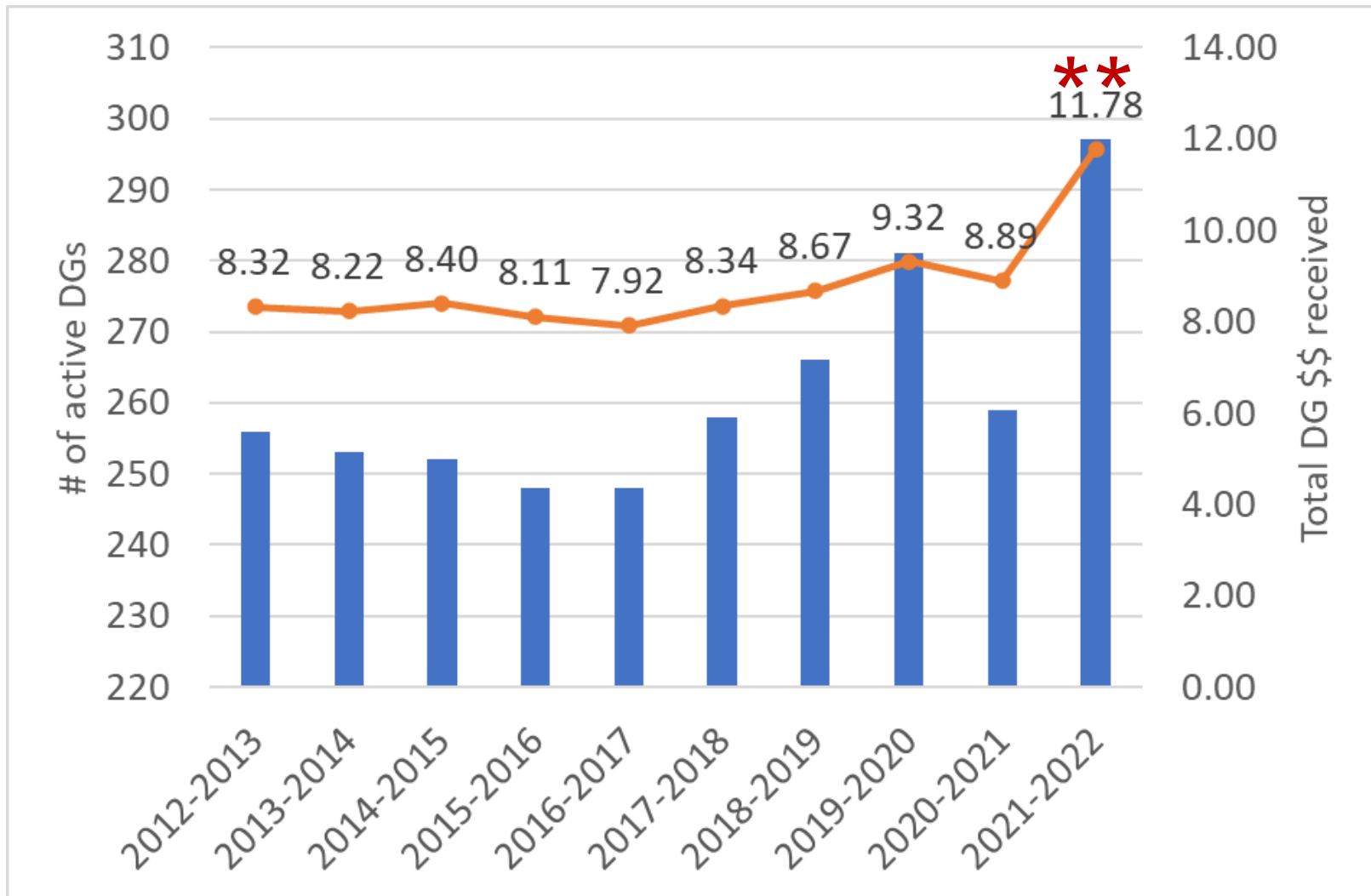
## Success rate by university size and applicant type

	Researcher category	2018 (%)	2019 (%)	2020 (%)	2021 (%)	2022 (%)
<b>Large</b>	<b>ECR</b>	<b>70</b>	<b>63</b>	<b>66</b>	<b>62</b>	<b>69</b>
	<b>ER-R</b>	<b>85</b>	<b>85</b>	<b>82</b>	<b>86</b>	<b>84</b>
	<b>ER-NHG</b>	<b>39</b>	<b>42</b>	<b>41</b>	<b>43</b>	<b>44</b>
Medium	ECR	61	54	67	62	61
	ER-R	79	80	81	79	81
	ER-NHG	33	38	33	34	37
Small	ECR	43	37	41	37	46
	ER-R	77	81	67	81	73
	ER-NHG	30	35	21	27	29
<b>DAL</b>	<b>ECR</b>	<b>68</b>	<b>61</b>	<b>56</b>	<b>68</b>	<b>52</b>
	<b>ER-R</b>	<b>73</b>	<b>86</b>	<b>67</b>	<b>81</b>	<b>79</b>
	<b>ER-NHG</b>	<b>42</b>	<b>35</b>	<b>40</b>	<b>44</b>	<b>39</b>

ECR=Early Career Researcher (5 years); ER-R= Established researcher applying for a renewal;  
ER-NHG= Established Researcher not holding a DG.

*Source: NSERC Competition Statistics Dashboard*

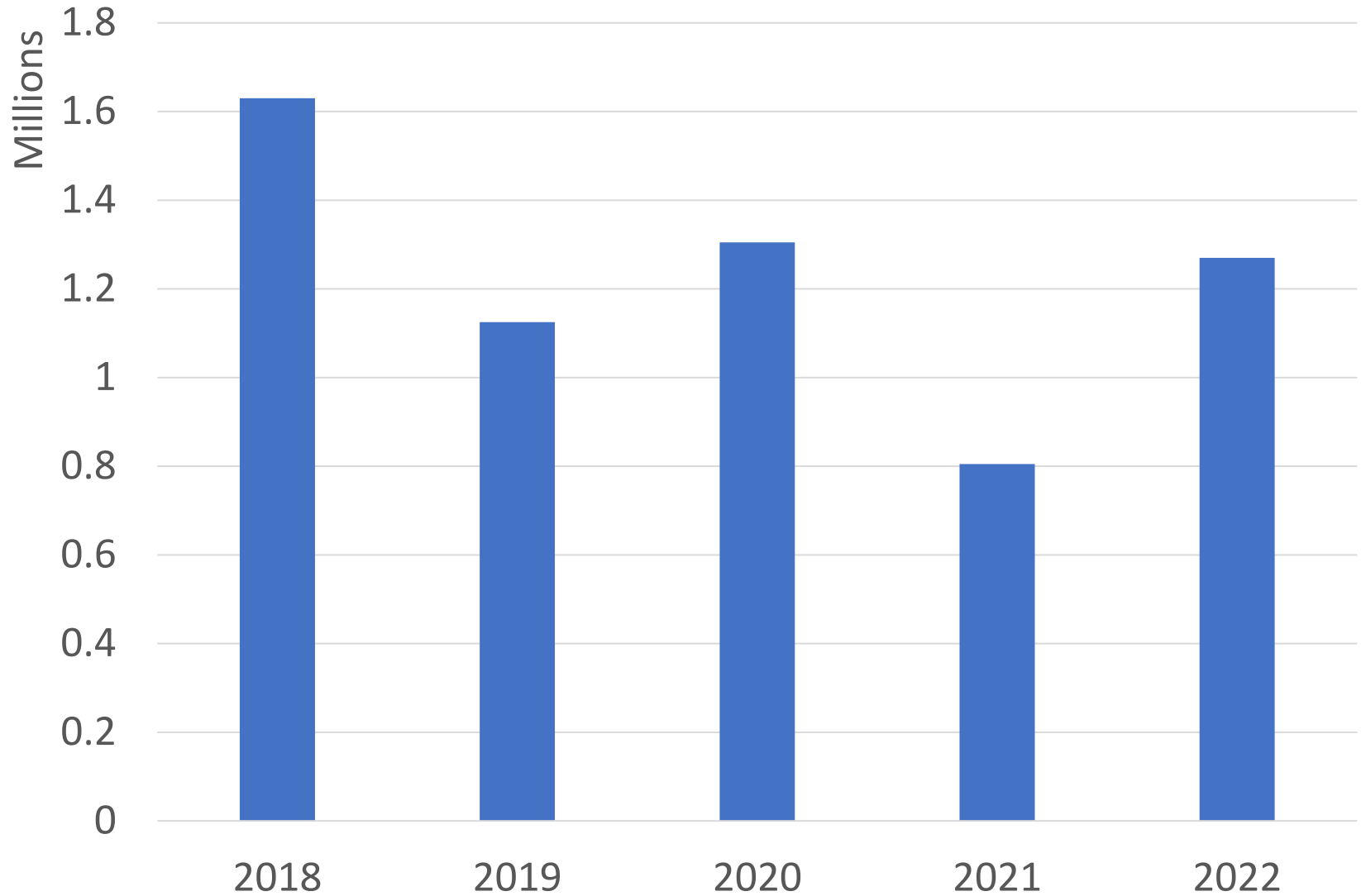
# # of DAL active DG and \$\$



\*\*\* includes COVID-19 extension with funds

Source: NSERC Awards Search Engine

# Bin J 5 year funding



# Score combination

Indicator Combinations			Bin
Exceptional	Exceptional	Exceptional	A
Outstanding	Exceptional	Exceptional	B
Very Strong	Exceptional	Exceptional	C
Outstanding	Outstanding	Exceptional	
Strong	Exceptional	Exceptional	D
Very Strong	Outstanding	Exceptional	
Outstanding	Outstanding	Outstanding	
Moderate	Exceptional	Exceptional	E
Strong	Outstanding	Exceptional	
Very Strong	Very Strong	Exceptional	
Very Strong	Outstanding	Outstanding	
Moderate	Outstanding	Exceptional	F
Strong	Very Strong	Exceptional	
Strong	Outstanding	Outstanding	
Very Strong	Very Strong	Outstanding	
Exceptional	Exceptional	Insufficient	G
Strong	Strong	Exceptional	
Moderate	Very Strong	Exceptional	
Moderate	Outstanding	Outstanding	
Strong	Very Strong	Outstanding	
Very Strong	Very Strong	Very Strong	
Outstanding	Exceptional	Insufficient	H
Moderate	Strong	Exceptional	
Strong	Strong	Outstanding	
Moderate	Very Strong	Outstanding	
Strong	Very Strong	Very Strong	
Very Strong	Exceptional	Insufficient	
Outstanding	Outstanding	Insufficient	

Indicator Combinations			Bin
Moderate	Moderate	Exceptional	I
Moderate	Strong	Outstanding	
Strong	Strong	Very Strong	
Moderate	Very Strong	Very Strong	
Strong	Exceptional	Insufficient	
Very Strong	Outstanding	Insufficient	
Moderate	Moderate	Outstanding	J
Moderate	Strong	Very Strong	
Strong	Strong	Strong	
Moderate	Exceptional	Insufficient	
Strong	Outstanding	Insufficient	
Very Strong	Very Strong	Insufficient	
Insufficient	Insufficient	Exceptional	K
Moderate	Moderate	Very Strong	
Moderate	Strong	Strong	
Moderate	Outstanding	Insufficient	
Strong	Very Strong	Insufficient	
Insufficient	Insufficient	Outstanding	
Moderate	Moderate	Strong	L
Strong	Strong	Insufficient	
Moderate	Very Strong	Insufficient	
Insufficient	Insufficient	Very Strong	
Moderate	Moderate	Moderate	M
Moderate	Strong	Insufficient	
Insufficient	Insufficient	Strong	N
Moderate	Moderate	Insufficient	
Insufficient	Insufficient	Moderate	O
Insufficient	Insufficient	Insufficient	P

Researcher Excellence	<p>Making contributions toward advancing EDI within your field and research community</p> <p>Examples: Organizing or participating in activities to develop knowledge and skills related to EDI (e.g. workshops, training) and to the challenges encountered by minority groups in their field or environment; Organizing or participating in mentoring activities for members of historically marginalized groups; Organizing conferences, symposia and other scientific events that are inclusive and diverse; Organizing or participating in science activities for youth from under-represented or historically disadvantaged groups.</p>
Sex, gender and diversity in Research Design	<p>If applicable, include sex, gender and diversity considerations in research: incorporate in research questions, design of the study, methodology and data collection, analysis and interpretation, dissemination of results;</p> <p>Ensure equitable, diverse and inclusive access for all researchers, including students and postdoctoral fellows;</p> <p>Consult <a href="#">Gendered Innovations</a> for case studies and methods for including sex and gender analysis in research design.</p>
Plans for HQP Training (Training Philosophy)	<p>Identify challenges/barriers specific to your discipline/location/etc: Examples: these could include lack of representation from different groups such as women, persons with disabilities, Indigenous peoples, racialized minorities, individuals from LGBTQ2+ communities, and also could include stereotyping of individuals within certain groups; unconscious/implicit bias; limited role models; inadequate mentoring; inequitable hiring; imposter phenomenon; microaggressions.</p> <p>For each challenge/barrier, provide a plan to address it.</p> <p>Identify specific actions that you will take to ensure diverse and inclusive training environment:</p> <p>Recruitment: advertise positions widely (feel free to specifically mention which groups/societies are included) and use inclusive language; explain your efforts to promote diversity as a part of your recruitment strategy; indicate outreach efforts and diverse audiences that are part of your outreach (ranging from high schools to grad school).</p> <p>Accommodation: addressing isolation, work environment, work-life balance; developing clear procedure for reporting and resolving harassment, support for student parents; daycare availability, working hours, leaves;</p> <p>Awareness: adopt Dimensions Charter within your research group; discuss EDI as a regular topic, make sure that students are aware of EDI concepts, and that they are provided with resources and information on EDI topics (unconscious bias training, workshops and information sessions).</p> <p>Training Environment: ensure that students have access to diverse role models through collaboration and informal meetings; equal access to conferences and other professional development activities.</p>
Past Contributions to training EDI	<p>Identify specific actions that you have taken to promote recruitment and retention of students: provide examples of successful recruitment efforts; provide examples of specific actions that you put in place to overcome any barriers/challenges as they relate to EDI; examples of professional development activities for your HQP; EDI related activities that HQP participated in; HQP participation in outreach activities; HQP award for promoting EDI in NSE.</p>

# Equity, Diversity and Inclusion (EDI)

## -resources-

1. “Best Practices in Equity, Diversity and Inclusion in Research” from NFRF (Canada): <https://www.sshrc-crsh.gc.ca/funding-financement/nfrf-fnfr/edi-eng.aspx>
2. NSERC Guide for applicants: [http://www.nserc-crsng.gc.ca/\\_doc/EDI/Guide\\_for\\_Applicants\\_EN.pdf](http://www.nserc-crsng.gc.ca/_doc/EDI/Guide_for_Applicants_EN.pdf)
3. NSERC EDI presentation: [http://www.nserc-crsng.gc.ca/\\_doc/EDI/EDIpresentation\\_EN.pdf](http://www.nserc-crsng.gc.ca/_doc/EDI/EDIpresentation_EN.pdf)
4. Diversity and equity in teams *“Gender diversity leads to better science.” PNAS. February 21, 2017, Vol. 114, No. 8. 1740-42.*
5. Sex, gender and diversity in **research design**  
*Stanford University- Gendered Innovations project.*