Subatomic Physics Evaluation Section Annual Report

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1. Introduction

The purpose of this report is to summarize the activities of the Subatomic Physics (SAP) Evaluation Section during fiscal year 2020-21, including the results of the 2021 competition. The report is provided to the Canadian subatomic physics community.

The Subatomic Physics Evaluation Section (SAPES) is a standing review committee that oversees a suite of programs. Funding for the Subatomic Physics suite of programs has been made through an independent envelope mechanism since 1991. Subatomic Physics Individual and Project Discovery, Research Tools and Instruments (SAP-RTI), and Major Resources Support (SAP-MRS) grant applications are evaluated together by the SAPES. This comprehensive approach is essential given the complexity and inter-dependency of many proposals, which are often linked to international programs and collaborations, and may involve many universities and national laboratories. This approach is also essential for the planning and stability of execution of large-scale and long-term projects, and for maintaining a balance between large projects and the smaller research efforts that are essential to the breadth and future success of the Canadian subatomic physics program. The envelope structure helps the SAPES maintain a balance between operations and capital investments.

Another unique strength of the SAPES is the extent to which it solicits reviews by international experts of the highest caliber. Most large Project, SAP-RTI and SAP-MRS grants are separately reviewed by ad-hoc or standing committees of experts drawn from institutions both international and Canadian. These committees perform exhaustive scientific, technical, and budgetary evaluations, and produce detailed reports which provide exceptionally valuable input to the SAPES for its assessment of the grant applications. Additionally, the SAPES selects a substantial proportion of international external reviewers for each Individual and Project grant proposal. Finally, the membership of the SAPES is itself substantially international, with at least half of its members coming from institutions in the U.S. and around the world. This level of international review provides a high degree of scrutiny and validation of the research funded by NSERC.

Despite the increased budget of the SAPES envelope in past years, it has been challenging for

the SAPES to financially support the community's short- and long- term objectives at an appropriate and competitive level to ensure the maximum scientific return on investments already made. This is partially due to the internationally-recognized excellence of Canadian SAP research leading to increased responsibilities in both national and international experimental projects. The success of the subatomic community in securing infrastructure funding through CFI has also led to increasing demands on the SAP envelope for operational funds.

The Canadian SAP five-year Long-Range Plan (LRP) identifies the community's scientific and funding priorities, and provides guidance to the SAPES' deliberations. The most recent LRP (2017-2021) report was produced in 2016, and covers the period until 2022. Currently, a new plan is being drafted, set to be released in the fall of 2021. This updated LRP will cover the period 2022-2026, with a look ahead to 2036. Once this report is finalized, the SAPES will consider the new priorities in the community moving forward.

2. SAPES Envelope

The pressure on the SAP envelope has been building for several years. Substantial investments by the Canadian government in science and technology, such as the Canada Research Chairs (CRC) program, the Canada Excellence Research Chairs (CERC) program, and the Canada First Research Excellence Fund (CFREF) have resulted in the fast growth of the number and the quality of faculty in SAP at many Canadian institutions. The latter increase has, in turn, been accompanied by a substantial growth in the number and quality of graduate students and other highly qualified personnel. The eventual end of CFREF funding in support of the McDonald Institute may place further pressure on the funding envelop when the recently hired faculty members begin applying for grants.

The SAP community has been effective in making use of CFI's programs for major capital equipment. This additional source of funding is welcome, but it is important to highlight the fact that it is in turn generating further pressure on the envelope as the latter is the main funding source in support of research-related costs. Starting in competition cycle 2016, CFI has continued to present at Large Project Day as one of the Canadian institutes supporting subatomic physics research in Canada. CFI also continues to recruit NSERC Expert Review Committee and SAPES members for their review committees. In recent years, there has been an increase in coordination of efforts between CFI and NSERC to better serve the needs of the SAP community.

The constraint on "opportunity funds" is a concern of the community as noted in the 2006, 2011, and 2017 LRP's; these figures provide quantitative measures of the budget pressure that continue to build within the subatomic physics envelope. The share of the envelope committed to the support of research operations does not allow much room for small-scale capital investments that are critical for emerging research endeavors.

Small-scale capital investments by the SAPES are needed both for R&D efforts and to satisfy the capital needs of the smaller programs that are essential for the breadth of the community and

the future of Canadian subatomic physics. Due to the long time scale of subatomic physics research programs, some overlap between current and next-generation discovery endeavors is unavoidable if Canada is to continue to play a leading scientific role in next- generation research projects. At a time when Canadian researchers are successfully utilizing the public investments made to date in leading endeavors, it would not be opportune to consider re-allocating a substantial part of the support to these efforts towards small-scale capital investments.

Budget 2018 represented a historic investment in Discovery research. The profile of ramping up for the SAP envelope can be seen in the table below:

	2018/19	**2019/20**	**2020/21**	**2021/2022**	**2022/2023**
Increase to envelope	$0	$726,324	$1,898,635	$3,300,000	$3,776,309*
Total envelope	$24,933,457	$25,762,655	$27,305,886	$28,683,651	$29,159,960

*future commitments will continue at this level

3. Update on Covid-19

In response to the growing pressures on the SAP research community caused by Covid-19, NSERC developed general guidelines for consideration of all impacts related to research. On April 9, 2020, NSERC announced that all active Discovery Grants could choose to receive a one-year extension with funds at their current funding level, including the SAP Individual, Project and SAP-MRS awards. The goal of this funding is to lessen the impact due to Covid-19, and to maintain support for all researchers and highly qualified personnel.

NSERC also recognizes that research activities may be delayed as a result of Covid-19. Because of this, universities were given the ability to approve time extension requests up to 12 months for grants with an end date between February 1, 2020 and March 31, 2021 inclusively. The purpose of this was to allow grant holders to continue spending grant funds beyond the end of their award duration. In response to potential delays in research, NSERC decided to automatically provide additional 12 month extensions to grant recipients who request them due to Covid-19, regardless of whether they have received a previous time extension of any length for any reason.

NSERC has developed general guidelines for the consideration of Covid-19-related impacts on research, aiming to provide direction on how to describe these impacts in an application and information on how to consider these impacts when reviewing contributions to research and training and/or research and training plans.

Due to the exceptional circumstances related to Covid-19, NSERC made the decision to hold competition week (February 22 – 26) virtually. This adjustment, to have all reviews take place by videoconference, was made to ensure the effective and timely delivery of the 2021

competition. Typically, competition week is the only time when the SAPES meets in person throughout the year, but this year, all meetings related to competition were conducted virtually.

Given the ongoing nature of the Covid-19 extensions being offered, NSERC will continue to monitor the impact and pressure they may have on the SAP envelope. In addition to the budgetary pressures, NSERC acknowledges the continual ramifications on contributions to research and training plans within the SAP community. We are aware that the impacts of the Covid-19 pandemic on research productivity and training are not equal for all members of the research community. Certain identity factors are associated with greater impacts for some individuals (e.g., gender, race, Indigenous identity, geographic location, rurality, disability, age, socioeconomic status, career stage, family responsibilities, etc.). NSERC strives to meaningfully address equity, diversity, and inclusion (EDI) considerations within the SAP community, to best respond to ongoing impacts.

4. SAPES Membership

This year's SAPES comprised 12 members, including four theorists. Five new members joined; all for full three-year terms.

Name	Institution	Term	Expertise
Mary Convery	Fermi National Accelerator Laboratory	2020-2023	Exp. Accelerator R&D
Thomas Gregoire (Co-Chair)	Carleton University	2018-2021	Th. Energy Frontier
David Hornidge	Mount Allison University	2018-2021	Exp. Strongly Interacting Matter (IEP/NP)
Charles Horowitz	Indiana University	2018-2021	Th. Nuclear Astrophysics
Georgia Karagiorgi	Columbia University	2019-2022	Exp. High Energy Physics, Neutrino properties
Alison Lister (Co-Chair)	University of British Columbia	2019-2022	Exp. Energy Frontier, Dark Sector
Meenakshi Narain	Brown University	2020-2023	Exp. High Energy Physics
Roxanne Springer	Duke University	2019-2022	Th. Nuclear Physics
Pedro Vieira	Perimeter Institute	2020-2023	Th. Particle Physics

Ingo Wiedenhoever	Florida State University	2020-2023	Exp. Nuclear Physics
Alexander Wright	Queen's University	2019-2022	Exp. Particle Astrophysics
Albert Young	North Carolina State University	2020-2023	Exp. Nuclear Physics, Strongly Interacting Matter (IEP)

The Co-Chairs would like to acknowledge the very demanding task faced by SAPES members throughout the year, up to and especially through competition week. Very long hours of deliberations ensured that each proposal was fairly and consistently evaluated according to the selection criteria. The remarkable professionalism and dedication of SAPES members is manifest in the high quality of the Section's recommendations. The Co-Chairs also wish to sincerely thank SAPES members for their careful and constructive attitude throughout the competition, and for ensuring the conduct of our many discussions in a pleasant atmosphere. Special thanks also go to this year's retiring members, Thomas Gregoire, David Hornidge and Charles Horowitz for outstanding service to the Canadian SAP community; it is deeply appreciated.

It is a pleasure for the Co-Chairs to thank NSERC staff for their expert guidance and help in the months leading up to the competition, and during the many long days of competition week: Amber Constantineau (Program Assistant), Kaitlyn Pomykala and Philip Bale (Program Officers), Kevin Lapointe and Emily Diepenveen (Team Leaders), Andrea Benoit (Deputy Director), Elizabeth Boston (Director, Mathematical, Environmental and Physical Sciences), Anne-Marie Thompson (Associate Vice President, Research Grants and Scholarships), and Danika Goosney (Vice- President, Research Grants and Scholarships).

5. Pre-Competition Meetings

Once membership has been decided each year, NSERC begins the competition process with an orientation meeting. This is an opportunity for new members to familiarize themselves with NSERC and the SAPES operating procedures, and to be informed of the process leading up to, and including, competition week. During the orientation meeting (November 5), directors of CINP and IPP, as well as returning members, welcomed the opportunity to respond to questions of new members, while also familiarizing the SAPES with the current Canadian funding landscape. A separate policy meeting was then held (November 24), to provide detailed policy news from NSERC, as well as an overview of the competition budget to the SAPES.

As in previous years, the SAPES members were given a CINP-IPP jointly prepared document on the context of the Canadian research environment, with the opportunity to ask questions. The document provides details about, and an overview of, the roles that various Canadian funding agencies play in supporting subatomic physics research. The document further provides information about the structure and different options for Canadian M.Sc. and Ph.D. programs,

followed by details about the regional differences in the training of Highly Qualified Personnel (HQP). The context that this document provides assists members, specifically international ones, in orienting themselves to the Canadian funding landscape.

NSERC held two Calibration sessions (December 17 and January 18) to provide the SAPES with mock reviews, in preparation for competition week. NSERC contacted past applicants to request permission to use their applications for calibration purposes. To ensure a thorough calibration, a diverse set of applications were selected (subject matter, ratings, team size, etc.) The purpose of this is to provide the SAPES the ability to calibrate themselves, and to know what to expect from competition week. These calibration sessions were seen as very useful, especially by new members, and will continue to be part of the preparation process leading up to competition week.

6. Application Process (NOI + Full app)

The deadline for the Notifications of Intent to Apply (NOI) for a Subatomic Discovery Grant was August 1, 2020. Programs which require NOIs include SAP Discovery Grants (Individual and Project), SAP-MRS, and SAP-RTI (Category 2 & 3).

The review of NOIs may involve the SAPES Co-Chairs. The objective of this step in the review process is to discuss those applications whose research topics cross the boundaries of two or more Sections within the Physics Evaluation Group or those which relate to a discipline other than physics. For each application, the lead Section (or Evaluation Group, if the research topic relates to another discipline) is identified, as well as the need for expert input to/from other Evaluation Groups.

When the Notifications of Intent to Apply are received, NSERC, in consultation with the Co-Chairs, assigns each application to an internal reviewer, who is the SAPES member with the most appropriate expertise, carefully considering the balance of workload among all of the members. In the case of SAP Discovery grant applications (Individual and Project), the first reviewer is required to recommend five external reviewers for each of their assigned proposals. Typically, up to three of the external reviewers can be chosen from the list of suggested reviewers on the Notification of Intent to Apply. It is in the applicant's interest to suggest reviewers who are not in a position of conflict according to NSERC's guidelines. Members generally select a substantial fraction of external reviewers who are from outside Canada. This year 89% of applications received 2 or more external reviewer reports. External reviewer reports are not typically sought for SAP-RTI or SAP-MRS grant applications.

The application deadline depends on the type of request, as well as the amount requested. The deadline for all SAP Individual grants and any SAP Project grant requesting under an average of $500,000 per year was November 1, 2020. The deadline for SAP Project grants requesting over an average of $500,000 per year, SAP-MRS grants, and SAP-RTI (Category 2 & 3) grants was October 1, 2020. For SAP-RTI (Category 1) grants, the deadline was October 25, 2020. Once all grant applications are received, NSERC, in consultation with the Co-Chairs, assigns five internal

reviewers to all applications. Additionally, for SAP Project or SAP-MRS grant applications that request an average of $500,000 per year or more, the third reviewer is asked to focus their review on budget scrutiny.

7. **Pre-Competition**

For any SAP Project grant applications requesting more than an average of $1M per year, as well as any SAP-RTI (Category 3) applications, an ad-hoc expert review can be held. Additionally, NSERC reserves the right to hold an ad-hoc review for any other grant application that they deem necessary. During this year's competition cycle no expert reviews were conducted. Typically, full reports with recommendations, including budget recommendations, would be prepared for SAPES. The reports, without the budget recommendations, would be sent by NSERC to the applicants prior to Large Project Day. The reports with the budget recommendations would then be sent to the applicants after the results of the competition are announced.

As a kick-off to competition week, on Sunday, February 21, 2021, the SAPES met for Large Project Day (LPD). This joint information and calibration session was held virtually, and allowed the SAPES to hear presentations by applicants of SAP Project grant applications requesting an average of $500,000 per year or more. These large proposals are typically complex, with extensive budgets, international commitments and project planning timelines which go far beyond those of smaller scale grant applications. The success or failure of a scientific program can depend on factors beyond the control of the Canadian research team. There have been notable examples in recent years in which the funding decisions in a host country forced changes in the scientific direction of the Canadian team between time of grant submission and assessment by the SAPES. The opportunity to question the applicants in writing and in-person in advance of the SAPES deliberations is critical to provide thorough evaluations and judicious recommendations to NSERC.

In addition to meeting with the applicants of large Canadian projects, the SAPES met management representatives from the Canada Foundation for Innovation (CFI), the Canadian Institute of Nuclear Physics (CINP), the Institute of Particle Physics (IPP), the Perimeter Institute, SNOLAB, McDonald Institute, and TRIUMF. All presentations by Canadian institute representatives, as well as applicants of collaborations submitting Large Project applications, were conducted *in camera* with the SAPES. Applicants made presentations and answered questions previously submitted by NSERC and the members. The three observers present for Large Project talks and Q&A were the directors of the CINP and IPP, and a representative from CFI. Collaborations invited to present were ARGO, and Darkside-20k.

8. **2021 Competition**

At the beginning of competition week, taking into account on-going commitments from previous competitions, $2.397M was available for the 2021 competition. This year, the SAPES received 47 applications, with the total funds requested for competition year CY2021

amounting to $5.660M, allowing for a possible funding rate of 42% for FY2021. For comparison, the funding rates for the years 2016 to 2020 were 55%, 57%, 74%, 64%, and 55%, respectively.

The funds available to the SAPES at the beginning of competition are shown in Table 1.

SUBATOMIC PHYSICS ENVELOPE
MULTI-YEAR COMMITMENTS BY CATEGORY
Pre-Comp 2021

	2021	2022	2023	2024	2025
RTI - COMMITTED	$0	$0	$0	$0	$0
RTI - 2021 Competition Requested	$1,130,514	$0	$0	$0	$0
RTI - TOTAL	**$1,130,514**	**$0**	**$0**	**$0**	**$0**
THEORY - COMMITTED	$3,343,000	$2,103,000	$1,584,000	$877,000	$0
THEORY - 2021 Competition Requested	$684,850	$757,970	$711,290	$779,210	$755,890
THEORY - TOTAL	**$4,027,850**	**$2,860,970**	**$2,295,290**	**$1,656,210**	**$755,890**
EXP OPS - COMMITTED	$20,494,007	$2,918,500	$529,000	$258,000	$0
EXP OPS - 2021 Competition Requested	$3,844,989	$4,010,570	$3,419,224	$742,085	$679,922
EXP OPS - TOTAL	**$24,338,996**	**$6,929,070**	**$3,948,224**	**$1,000,085**	**$679,922**
MRS - COMMITTED	$2,816,032	$1,705,500	$1,475,000	$75,000	$0
MRS - 2021 Competition Requested	$0	$0	$0	$0	$0
MRS - TOTAL	**$2,816,032**	**$1,705,500**	**$1,475,000**	**$75,000**	**$0**
TOTAL - COMMITTED	$26,653,039	$6,727,000	$3,588,000	$1,210,000	$0
TOTAL - 2021 Competition Requested	$5,660,353	$4,768,540	$4,130,514	$1,521,295	$1,435,812
GRAND TOTAL	**$32,313,392**	**$11,495,540**	**$7,718,514**	**$2,731,295**	**$1,435,812**
TOTAL ENVELOPE	**$28,683,651**	**$29,159,960**	**$29,159,960**	**$29,159,960**	**$29,159,960**
REIMBURSEMENT from past FY	**$366,900**	**$0**	**$0**	**$0**	**$0**
AVAILABLE	**-$3,262,841**	**$17,664,420**	**$21,441,446**	**$26,428,665**	**$27,724,148**

Table 1. Overall budget available as presented before Competition 2021

Of the 47 applications received, the breakdown was as follows:18 Project, 18 Individual and 11 SAP-RTI (Category 1) applications. There were no SAP-MRS or SAP-RTI (Category 2 & 3) applications submitted this year.

The first day of competition began with a brief introduction to the virtual environment. The SAPES then started Round 1, and proceeded with the review of all applications. New to this competition year, NSERC moved to a five-reviewer model to further harmonize with the larger DG program.

The format of the discussions followed NSERC's guidelines and the SAPES internal procedures. For each application, the first internal reviewer presented all aspects of the proposal and made their recommendations (ratings, funding, duration). This was followed by additional comments by the second - fifth internal reviewers, who also made recommendations. For grant applications requesting support in excess of an average of $500k per year, a presentation focused on the budget was asked to be made by the third internal reviewer. At the end of the discussion, each reviewer was asked to rate the application against NSERC's selection criteria: Excellence of the Researcher/Collaboration, Merit of the Proposal, Highly Qualified Personnel (HQP), and Need for Funds. Guided by the results of the selection criteria, the internal reviewers then determined whether to recommend funding the application, the level of

support, and the duration. All recommendations were determined through anonymized electronic voting. The median vote was selected as the final recommendation. Members in conflict with any particular application left the virtual meeting room in advance of the identification of internal reviewers and discussion; those in conflict were not informed of the reviewer assignments or the result.

Following the review of all Project applications and Individual experimental applications, SAPES members were then divided into two sub-Sections (Individual theory applications and SAP-RTI (Category 1)), and reviewed their applications accordingly.

As in previous years, the SAPES members were asked not to keep a cumulative total of the recommended awards, in order to not bias the review of applications discussed towards the end of the round, and to ensure that all applications were treated consistently and fairly. In order to ensure the integrity of the review process, applications could be flagged by any SAPES member, the Program Officer, or the Team Leader, at any time, if they felt that some aspects of the discussion or the recommendation necessitated further deliberations. Flagged applications were re-discussed at the end of a given round, before the budget balancing discussion took place.

The Round 1 deliberations concluded on Wednesday, February 24. The Team Leader made a presentation on the budget, taking into account the sum of the recommended awards for all the applications.

Prior to the start of Round 2, a discussion took place to establish the guiding principles for the re-evaluation of all proposals in an attempt to balance the budget. The principles were applied to all proposals; all proposals were assessed on their merits, taking into account the SAPES' evaluations of the four criteria for each proposal, which had been recorded from Round 1. All proposals were reviewed and revised funding recommendations were made. As in Round 1, any application could be flagged if a SAPES member or NSERC staff felt that some aspect of the revised recommendation required further deliberations.

After Round 2 concluded, the SAPES had successfully funded at the recommended 42% funding rate, resulting in no round 3 deliberations. The results of each round can be seen in the table below:

Round	Recommended Amount	Total Available	Difference
1	$3,430,648	$2,397,512	$1,033,136
2	$2,243,122	$2,397,512	-$154,390

At the end of competition, the SAPES recommended total funding of $2.243M from the envelope, from a total request for $5.660M, causing the funding rate for this year's competition to be 40%. The remaining $154,390 will be added to the SAP envelope for CY2022. The SAPES' final multiyear budget, broken down into equipment, theory, and experimental operating

allocations is shown in Table 2, while Table 3 gives the percentage share of the envelope in theory, equipment, and operations over the period from 2016 through 2021.

SUBATOMIC PHYSICS ENVELOPE MULTI-YEAR COMMITMENTS BY CATEGORY Competition 2021					
	2021	2022	2023	2024	2025
RTI - COMMITTED	$0	$0	$0	$0	$0
RTI - 2021 Competition	$489,922	$0	$0	$0	$0
RTI - TOTAL	**$489,922**	**$0**	**$0**	**$0**	**$0**
THEORY - COMMITTED	$3,343,000	$2,103,000	$1,584,000	$877,000	$0
THEORY - 2021 Competition	$347,200	$341,300	$347,200	$341,300	$347,200
THEORY - TOTAL	**$3,690,200**	**$2,444,300**	**$1,931,200**	**$1,218,300**	**$347,200**
EXP OPS - COMMITTED	$20,494,007	$2,918,500	$529,000	$258,000	$0
EXP OPS - 2021 Competition	$1,406,000	$1,540,500	$645,000	$387,000	$387,000
EXP OPS - TOTAL	**$21,900,007**	**$4,459,000**	**$1,174,000**	**$645,000**	**$387,000**
MRS - COMMITTED	$2,816,032	$1,572,000	$1,475,000	$75,000	$0
MRS - 2021 Competition	$0	$0	$0	$0	$0
MRS - TOTAL	**$2,816,032**	**$1,572,000**	**$1,475,000**	**$75,000**	**$0**
TOTAL - COMMITTED	$26,653,039	$6,593,500	$3,588,000	$1,210,000	$0
TOTAL - 2021 Competition	$2,243,122	$1,881,800	$992,200	$728,300	$734,200
GRAND TOTAL	**$28,896,161**	**$8,475,300**	**$4,580,200**	**$1,938,300**	**$734,200**
TOTAL ENVELOPE	**$28,683,651**	**$29,159,960**	**$29,159,960**	**$29,159,960**	**$29,159,960**
REIMBURSEMENT from past FY	**$366,900**	**$154,390**	**$0**	**$0**	**$0**
AVAILABLE	**$154,390**	**$20,839,050**	**$24,579,760**	**$27,221,660**	**$28,425,760**

Table 2. Breakdown of multiyear commitments at the end of the 2021 competition

Subatomic Physics Evaluation Section Evolution of Envelope's Shares						
	2016	2017	2018	2019	2020	2021
Theory	14%	13%	13%	13%	11%	13%
RTI	2%	2%	1%	3%	2%	2%
Total Research Ops	**84%**	**85%**	**86%**	**84%**	**86%**	**86%**
Exp. Ops	74%	75%	77%	74%	76%	76%
MRS	9%	10%	10%	10%	10%	10%

Table 3. Envelope share in theory, experimental operations, and equipment, 2016-2021

9. Discovery Accelerator Supplements

The objective of this program is to accelerate progress and maximize the impact of established, superior research programs. This supplement provides substantial and timely resources to researchers who, in addition to having an established, superior research program, are highly rated in terms of originality and innovation, and who show strong potential to become international leaders within their field. During regular deliberations the SAPES members may nominate any SAP Individual Discovery grant applicant for a DAS, following the assessment of the merit criteria. The SAPES should nominate a researcher to allow them to capitalize on an opportunity or a bold idea (e.g. a recent research breakthrough, a paradigm shift, or a new

strategy to tackle a scientific problem or research question, etc.). Once nominated, the five reviewers have time to discuss why they believe a researcher deserves the supplement.

In CY2021, some changes were implemented to the DAS program. While there were no changes to the core of the program, and all selection criteria remained the same, the approach to voting was changed, as well as the responsibilities of both members and the Executive Committee. While the DAS discussion still took place during the deliberation time, individual voting occurred afterwards (but within the week of competition). An anonymous voting system was put in place to allow for members to submit their vote for all DAS nominees, outside of the standard review time. Additionally, instead of submitting a rationale as to why an applicant deserved the supplement, the electronic voting form contained context questions about the nomination. The SAPES were required to provide an overall DAS score, as well as answer questions relating to the DAS criteria, in order to provide a well-rounded view of the applicant and whether their program deserved additional funds. Finally, the role of the Executive Committee was changed, so that after competition was completed, the co-chairs provided a quality cut-off, as well as guiding principles to be use by NSERC in selecting the DAS awardees. This year (as in recent years), a DAS was awarded to one SAP applicant.

10. EDI information

NSERC is acting on the evidence that equity, diversity and inclusion (EDI) strengthen the scientific and engineering community and the quality, social relevance and impact of research. Increasing diversity and gender equity in the research enterprise are key priorities in NSERC's current strategic plan, and therefore we have begun integrating EDI considerations into its policies, processes, indicators of excellence and evaluation criteria. NSERC encourages all applicants to explain their process of identifying, recruiting and selecting research personnel based on EDI best practices as one means to enhance excellence in research, training and outreach. The SAPES was guided on how to evaluate EDI in the Excellence of the Researcher/Collaboration, by looking at past contributions; the Merit of the Proposal, where applicants are expected to describe considerations in their research design; and in Contributions to the Training of HQP. In this section, applicants are required to describe EDI considerations in their future approaches to recruitment, training and mentoring, but also are asked to describe specific actions implemented in support of EDI in their past trainings of HQP. Through these actions, NSERC is hoping to develop the inclusive culture needed for research excellence and to achieve outcomes that are rigorous, relevant and accessible to diverse populations.