



EVALUATION OF SCIENCE FUNDING

ABOUT THE PROGRAMS

The Ecosystem and Oceans Sciences sector has 16 funding programs where internal scientists can apply for O&M budgets to conduct research on a variety of topics that support the department's objectives. The funds are allocated through competitive, targeted competitive or directed calls for proposals and exist alongside other Ecosystem and Oceans Science core research programs. In 2017-18, the total actual O&M expenditures for the programs were estimated to be \$15,789,178.

ABOUT THE EVALUATION

The evaluation was conducted from April 2018 to February 2019. It assessed the efficiency of the 16 science funding programs and Gender-based Analysis Plus was used as an analytical tool to examine whether any groups are under-represented paying particular attention to the number of female scientists applying for and receiving funding. Evidence was gathered from interviews with 46 internal and external individuals, a document review, process mapping, administrative data analysis, three surveys (applicants, review committee members and end-users of research) and a literature review.

KEY FINDINGS

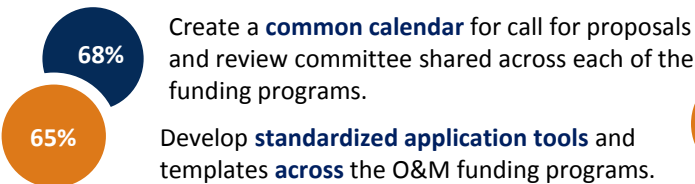


Efficiency of the funding cycle

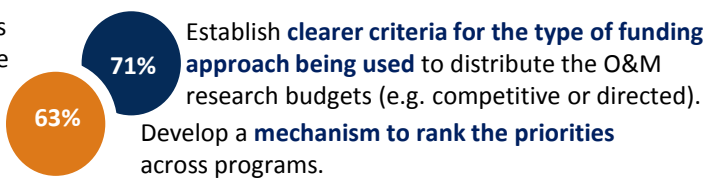
Good practices exist within each of the funding programs and at the various stages of the funding cycle; however, collectively the programs are not implemented in a consistent manner leading to overall inefficiencies. There is widespread support across the Ecosystems and Oceans Science sector for changes that would improve the efficiency of how the programs are delivered.

An internal review of the competitive funding programs conducted in 2018 generated many suggestions for improvements. Respondents to both the applicants survey and the survey of review committee members were asked to rank ideas from the review. Results of the survey are presented below. As shown, there was strong support for improvements that standardize tools and processes:

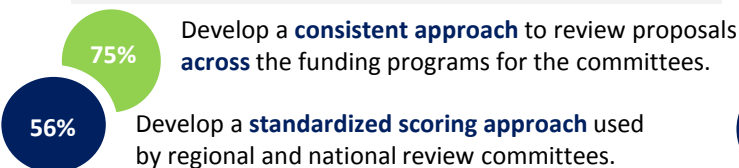
The top activities that would address inefficiencies in the application process (n=261) were:



The top activities that would improve oversight and administration (n=251) were:

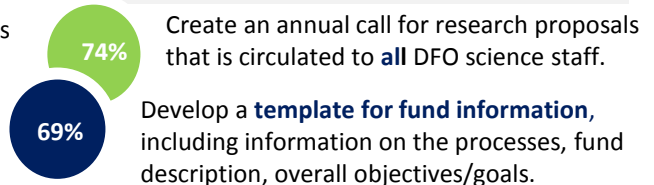


The top activities that would address inefficiencies in the review process (n=52)* were:



* Survey of review committee members only

The top activities that would improve communication (n=254) were:



There is **support for the use of both competitive and directed models** for the solicitation of proposals. Eligible applicants, however, want more communication about the rationale behind using one model over another.



KEY FINDINGS continued



Satisfaction of clients of the programs

Internal Fisheries and Oceans Canada clients who use the research produced through the programs expressed low levels of satisfaction regarding how they are consulted in priority-setting exercises noting that priorities are not reflected in the projects that are funded or the final research results. They were also dissatisfied with the way in which final research results are communicated to them; some informants noted they do not always get results back. End-users commented that to address both these issues, there are opportunities to improve engagement at key points in the funding cycle.

48%

are **not satisfied/partly satisfied** with the degree to which they are consulted in the priority-setting exercises compared to **6% who are more than/very satisfied**.

49%

are **not satisfied /partly satisfied** with the way in which research results are communicated to them compared to **11% who are more than/very satisfied**.



Level of effort associated with funding programs

Respondents to the survey of researchers/scientists (n=173) reported a total of **4,374 days** in 2017-18 dedicated to administration, developing proposals and reporting for the funding programs. When the total number of days reported by respondents to the applicants survey is converted to salary dollars, the value of researchers' time is **estimated** to range between **\$1.4M to \$1.9M** for the 2017-18 fiscal year. Respondents to the review committee survey (n=53) reported a total of **518 days** in 2017-18 dedicated to assessing letters of intent, applications or other aspects of the funding programs.

Gender-Based Analysis Plus is an analytical tool that was used to examine the success rate of female scientists applying for and receiving funding. Additional identity factors were explored to see if there were any barriers or challenges for certain groups of scientists accessing the funds. The findings of these analyses are presented below.



Success rate of female researchers

For a sample of 524 projects matched to administrative data, analysis showed that although more males applied to the funding programs, and the **proportion of women** that applied and the proportion **that were successful were equal**.

% applied for funding



% of successful proposals



In total, male scientists received \$43,081,519 and female applicants received \$27,092,847. On average, successful female applicants received **85 cents for every dollar** received by their male counterparts.



Perceived barriers

There are **few perceived barriers** related to gender, official language, ethnicity, age and geographic location. There is a perception that career status can be a barrier to accessing funds. To help reduce any perceived barriers, **best practices could be implemented** and staff roles and responsibilities could be clarified as they pertain to supporting equity and diversity in the allocation of the funds.

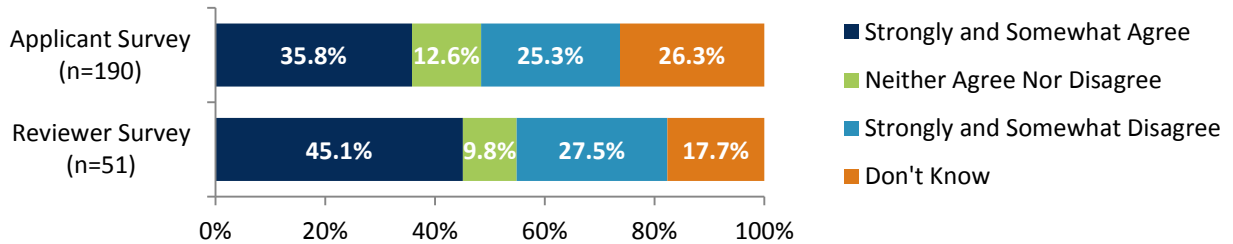
KEY FINDINGS continued



Impact of communication practices

The **piecemeal approach to communicating** about funding opportunities could represent the **greatest barrier to equitable access** to the 16 funding programs. **One third of respondents** to the applicant survey indicated that the process to make them aware of calls for proposals and funds available is **not transparent** (33% not at all or to limited extent).

All eligible applicants have equal access to the research funds available through these funding programs



RECOMMENDATIONS

1

It is recommended that the Assistant Deputy Minister, Ecosystem and Oceans Science transform the overall research funding allocation process. Consideration should be given to streamlining and developing a model aimed at increasing overall efficiencies across EOS' research universe.

2

It is recommended that the Assistant Deputy Minister, Ecosystem and Oceans Science adjust the funding allocation and research processes to increase client engagement at key touchpoints. Improved engagement with end-users should help better align research projects with their needs. It will also allow for information and research progress to be communicated to clients at key points in the process, including at the end when research results are available.

3

It is recommended that the Assistant Deputy Minister, Ecosystem and Oceans Science standardize communication about funding opportunities in the sector across the funding programs to reduce real and/or perceived inequities in how eligible scientists receive information. While there is wide support for the use of both directed and competitive solicitation of research proposals, better communication about the rationale of choosing one funding model over the other, including inviting a particular group of scientists over others, would improve overall transparency.