

# Management Response and Action Plan PromoScience Evaluation

## Context

PromoScience supports hands-on and interactive learning experiences for young Canadians and science teachers that inspire an interest in science and engineering, motivate youth to study science and engineering and ultimately to pursue careers in these fields.

This is the second evaluation of PromoScience covering the time period from the last evaluation of the funding opportunity in 2015-16 to the end of fiscal year 2019-20. Conducted during the COVID-19 pandemic, the evaluation was undertaken in part to assess the conclusions and recommendations of the first evaluation and to assess the relevance, delivery, performance and efficiency of the PromoScience funding opportunity. In addition, the evaluation considered performance in light of increases to the program budget in the last 5 years. The evaluation complies with the 2016 Treasury Board *Policy on Results*.

## Overall Comments

Management of the PromoScience funding opportunity agrees with the conclusions of this report and some of the recommendations therein. Management was pleased that the report once again confirmed that PromoScience funding contributed significantly to the increased exposure of youth to STEM as well as to the increased interest in STEM. It is also an important finding that the funding leads to improved confidence among the teachers who benefit from training from science promotion organizations.

Responses to each recommendation and the management action plan are presented below.

## RECOMMENDATION 1

**Regarding the need to support informal STEM learning opportunities for all young Canadians. This evaluation recommends the continuation of the program:** PromoScience continues to be an appropriate role for the federal government as it helps to support the development of a positive STEM culture in Canada. Evidence collected indicates that PromoScience is achieving its immediate outcomes as funded projects increase the exposure, engagement and interest of young Canadians in STEM and/or increase the training and resources available to improve the capacity of Canadian teachers responsible for STEM education. Additionally, evidence indicates that PromoScience funds enable grantees to improve their organizational capacity to deliver informal STEM learning activities.

**Management response:** Agree. No action required.

## RECOMMENDATION 2

**Measuring the impact of the program remains a challenge, particularly in documenting some key aspects of the program such as tailoring activities for a diverse group of participants and the level of impact that can be reasonably expected from these funded activities. The evaluation recommends that NSERC, in consultation with the ISL community, explore the possibility of providing more support to grantees to enhance their monitoring activities.** Such support could take different avenues such as developing and making available a standardized method/tool of tracking some performance indicators related to the funded activities. This information would be easily transferable into Final Activity Reports and would support consistency and continuity in data collection. Such support should be sensitive to the

differences existing among funded organizations (e.g. size of organization, realities, capacities, scope of reach, history, years of activities, expertise) in order to avoid creating unnecessary burden and/or financial pressure. Such support should also take into account the targeted audiences and the fact that reporting may need to be adapted for interactions through teachers vs. direct interactions with youth.

**Management response:** Agree. Grantees may use PromoScience grant funds to pay for evaluation of their activities (up to 20% of the value of the annual instalment), though the focus of spending must remain on the delivery of hands-on STEM activities to Canadian youth. NSERC will consult with grantees to offer guidance and tools that will support their documentation and impact assessment. Links to the PromoScience logic model will be considered in collaboration with the Program Evaluation team.

### RECOMMENDATION 3

**PromoScience funds may be used by grantees to provide training and/or resources to elementary and/or secondary school teachers in Canada. In fact, teachers are found to play a significant role in encouraging youth to pursue STEM education. Enhancing the capacity of teachers to implement meaningful and impactful teaching strategies related to STEM is part of the PromoScience funded projects and three main strategies are used with teachers: access to tools and resources, general training and specialized/comprehensive training that provides support to teachers in how to engage members of underrepresented groups. At the time of the evaluation, few organizations were focussing on delivering comprehensive training activities<sup>1</sup>. This evaluation recommends placing greater emphasis on offering comprehensive and high impact training for teachers and other educators/facilitators involved in informal science learning. In consultation with the ISL community, NSERC should consider the following actions:**

Design and disseminate criteria for what comprehensive training should include and make it accessible to organizations. Identify what expertise should be required from applicants in order to submit a proposal focussed on training teachers. Identify avenues to support collaboration among the science learning community, and between the ISL community and other key community players in order to share best practices and resources. Encourage applicants to describe their strategies to build meaningful partnerships with the ISL community and other community partners that can enhance the reach and the impact of their proposed projects and activities.

**Management response:** Partially agree. While recognizing the important and amplifying role teachers play in exposing youth to STEM, the design of training curricula for teachers falls outside the scope of NSERC. Determining and developing the appropriate criteria for the comprehensive training of teachers lies in the realm of provincial organizations. NSERC can reinforce the important role that teachers play by providing expanded guidance in the selection process. Selection committee members can be sensitized to the importance of teacher training activities, especially if the training will strengthen teachers' abilities to engage youth from underrepresented groups.

The impact of meaningful community partnerships can also be highlighted through the selection process. Other incentives to encourage partnerships between informal and formal learning, as well as the sharing of best practices, could be explored.

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<sup>1</sup> Referred to as specialized training in the evaluation surveys.

## Management Action Plan

| <b>Recommendation</b><br><i>(As written in the evaluation report)</i>  | <b>Agree/ Disagree</b><br>(Indicate: "Agree", "Partially Agree" or "Disagree") | <b>Proposed Action</b><br><i>(Identify what specific actions program management will take to address the recommendation)</i>  | <b>Responsibility</b><br><i>(position(s) in the division responsible for implementing each action)</i> | <b>Target date for completing proposed action</b><br><i>(Please specify specific dates – month/year as opposed to a fiscal year)</i> |
|--|--|---|--|--|
| <b>Rec.1:</b> the continuation of the program  | Agree  | No action required.   |  |  |
| <b>Rec. 2:</b> that NSERC, in consultation with the ISL community, explore the possibility of providing more support to grantees to enhance their monitoring activities. | Agree  | <ul style="list-style-type: none"> <li>Develop tool (s) to support tracking performance indicators and impacts related to the funded activities.</li> </ul>   | ICSP and SPO Policy and Planning Teams; Evaluation Division  | December 2022  |
| <b>Rec. 3:</b> recommends placing greater emphasis on offering comprehensive and high impact training for teachers.  | Partially agree  | <ul style="list-style-type: none"> <li>Expand committee guidelines to reflect the importance of teacher training</li> <li>Explore ways to encourage partnerships and sharing of best practices between informal and formal science learning.</li> </ul> | ICSP<br><br>ICSP   | December 2021<br><br>December 2022   |

Management response: evaluation of the science and engineering promotion initiative PromoScience.

The Honourable François-Philippe Champagne, P.C, M.P. Minister of Innovation, Science and Industry

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