

## **Management Response and Action Plan to the 2017 Evaluation of the Centres of Excellence for Commercialization and Research (CECR)**

The Centres of Excellence for Commercialization and Research (CECR) were launched in 2007 to support the innovation to commercialization continuum by matching clusters of research expertise with the business community to share the knowledge and resources that bring innovations to market faster.

To date, the CECR program has funded 29 centres, 19 of which were still receiving funding at the time of this report. Funded centres facilitate commercialization within the four priority areas articulated in the 2007 Science and Technology Strategy: environment; natural resources; health and life sciences; and information and communication. Furthermore, each centre has a mandate to become self-sustaining while maximizing economic impact for its partners.

The CECR program was previously evaluated in 2012, at which time the evaluation focused on the early achievement of program outcomes. The scope of this evaluation covers the five-year period from fiscal year 2012-13 to 2016-17. In addition to exploring the economic benefits of the program and issues related to design and delivery, the focus of this evaluation is on key intermediate outcomes including: impacts on companies served and commercialization outcomes as well as centre self-sustainability.

Goss Gilroy Inc. was commissioned via a competitive process to conduct the evaluation. The response from NCE Management to the evaluation recommendations and the proposed action plan is detailed below.

### **NCE MANAGEMENT RESPONSE**

#### **OVERALL COMMENTS**

The NCE Management Committee recognizes that the evaluation of the CECR program is based on multiple lines of evidence that include a review of documents and key literature; a financial data review; interviews with key informants; a web based survey of centre partners and organizations served; case studies; and an econometric analysis.

The NCE Management is also aware of the key limitations that include the high variability in centre implementation and the challenges in attributing outcomes specifically to CECR program funding. The creation of a typology that grouped centres according to key characteristics of their delivery models as well as an econometric analysis were used as mitigation strategies for these two limitations.

The evaluation confirms the continued need for the CECR program to support the innovation to commercialization continuum by matching clusters of research expertise with the business community to share the knowledge and resources that bring innovations to market faster. Demand for the program is strong and the flexible delivery model has many advantages. The CECR program is uniquely positioned in the innovation ecosystem and fulfills a key niche with minimal overlap with other federal organizations. The Canada Accelerator and Incubator Program (CAIP) has the most similarities with the CECR program, however they differ in their objectives and delivery mechanisms (e.g. linkages with academia and grants vs contributions as payment mechanisms).

The CECR program is having a positive impact on partner organizations and R&D receptivity, capacity and investment. There is also evidence that the program is achieving intended outcomes in a manner that reflects the niche it occupies in the continuum and there appears to be no evidence of problematic duplication with other funding programs.

While the CECR program is aligned with the existing federal ST&I strategy and the objectives of NSERC, CIHR, and SSHRC, some issues were identified with regard to program implementation in meeting the needs of all stakeholders.

NCE Management therefore agrees with the overarching conclusion that the program is relevant and brings added-value. Detailed responses to each recommendation are provided below and an action plan is presented in the following table.

### **RECOMMENDATION 1:**

#### **Continue to deliver the CECR program and allow flexibility in centre delivery models.**

The CECR program objectives respond to an identified gap in Canada's innovation and commercialization capacity and align with federal and tri-agency priorities. Furthermore, the evaluation shows evidence that the CECR program is achieving several intended outcomes including increasing growth in sales, R&D expenditures, number of employees, and wages among supported companies.

Centres are naturally adopting a range of delivery models which correlate with different positive outcomes (e.g., Investors are more likely to drive IP protection while Service Providers are more likely to accelerate time to market and drive company growth). This suggests that flexibility is an asset, allowing the CECR program as a whole to address multiple commercialization challenges.

At the same time, some centres (primarily Service Providers) seem to have limited connection to academia and none appear to be directly tapping into current SSH research/innovations. As such, senior management should consider the value of/need for direct connection to academia as well as the value of/need for incorporating a broader perspective on what constitutes innovation.

### **MANAGEMENT RESPONSE: AGREED**

Management agrees with this recommendation. The CECR program flexibility, allowing individual centres to design their own delivery model, is a key program asset. The NCE Management recognizes however that some centres don't appear to have strong linkages with academia; however the SMEs that interact with several of those centres are fueled by the innovation coming out of academia. Moving forward the NCE Secretariat will increase its emphasis on inclusivity of all sectors, particularly the SSH.

### **PROPOSED ACTION:**

1. The NCE Secretariat will continue delivering and making necessary improvements to the CECR program, while maintaining the flexibility as an asset.
2. The NCE Secretariat will encourage the centres to strengthen, or better communicate their linkages with academia as appropriate. Successful delivery models will be showcased, for example during the NCE AGM, and other events linking the CECR program with academia such as the AUTM conferences.
3. The NCE Secretariat will work with the NCE Management Committee and the SSH community to broaden the program objectives with regards to what constitutes innovation, modify the PSAB membership to introduce a broader skillset encompassing more diverse areas of expertise, and introduce program modifications leading to a more inclusive initiative for the different sectors including the SSH.

## **RECOMMENDATION 2:**

**Allow more time for centres to achieve self-sustainability and clarify how the CECR program defines self-sustainability.** Most centres are moving towards independence from CECR funding. However, evidence suggests that building an international-caliber centre of excellence is a long term commitment. This is particularly true for centres in the health and life sciences where the path to market (and the corresponding path to financial solvency) is substantially longer than in many other sectors. Furthermore, even if a centre can maintain some operations without CECR funding, ending program involvement prematurely may reduce services and detract from focus on CECR program goals.

Specifically, the CECR program should:

- a. Allow more time to achieve self-sustainability by lengthening funding cycles or providing additional extension opportunities.
- b. Clarify to stakeholders (centres, PSAB members, and others) the program's definition of self-sustainability, distinguishing between independence from CECR funding and total independence from public sector funding.
- c. Provide additional guidance on expectations regarding how centres will contribute to 'benefit to Canada' after CECR funding.

## **MANAGEMENT RESPONSE: AGREED**

Management agrees with this recommendation. By opening the 2018 CECR competition to all previously and currently funded CECRs, the NCE Management recognizes that centres require more time to achieve self-sustainability. The 2018 CECR competition also provides a revised definition of self-sustainability that accounts for the realities of the different industry sectors, allows greater flexibility for centres to achieve their goals and demonstrate progression towards self-sustainability. The NCE Secretariat will also ensure that the definition of self-sustainability is well understood by the centres, and it has already introduced a new element in the new 2018 CECR competition where centres have to reflect on their success "post-CECR funding". Finally, moving forward the NCE Management will explore ideas to further capitalize on previous investments made not only in CECRs.

## **PROPOSED ACTION:**

1. The NCE Secretariat will continue to closely monitor the progress of centres in achieving their goals and work with the NCE Management and Steering Committees to define the parameters of the next competition.
2. The definition of self-sustainability has already been introduced with the 2018 competition. However, the NCE Secretariat will ensure that it is well understood that self-sustainability means independence from CECR funding as opposed to total independence from public sector funding.
3. Following a suggestion from the Private Sector Advisory Board (PSAB), the NCE Secretariat introduced a new element to the full application for the 2018 CECR competition where centres have to define what success "post-CECR funding" looks like for them. The NCE Secretariat will continue to work with NCE Management and Steering Committees to refine this element.

### **RECOMMENDATION 3:**

**Consider appropriateness and feasibility of the following potential areas for improvement:**

- a. Clarifying key aspects of the selection criteria, such as the definition of “Benefit to Canada”; the relative importance of whether a centre has regional, national or sector representation; the extent to which applications for round two funding are considered on their own merits and/or assessed in relation to other applications.
- b. Providing additional opportunities for communication with PSAB as part of the review process, as well as more clarification to applicants regarding respective PSAB and Expert Panel roles and mandates.
- c. Increasing/formalizing coordination with provincial commercialization strategies due to importance of regional presence and potential for increasing focus on clustering.
- d. Increasing opportunities to share lessons learned across centres, including sustainability strategies, business practices, etc.

### **MANAGEMENT RESPONSE: AGREED**

Management agrees with this recommendation. While it is difficult to review centres in relation with others due to the uniqueness of each business model, the NCE Secretariat can rethink and clarify certain aspects of the selection criteria. The Benefit to Canada criteria will be refined to include aspects of fit within the ecosystem and overall Federal Government priorities. The respective roles and mandates of PSAB and Expert Panels will be clarified in the NCE literature and disseminated to the community, and the NCE Secretariat could envisage ways of increasing interactions between applicants and PSAB at different stages of the review process. In terms of coordination with provincial commercialization strategies, while the NCE Management agrees with this recommendation, it is difficult to achieve due to the lack of knowledge and/or connections with the appropriate stakeholders at the provincial level. However, where possible the coordination will be explored, either with provincial government or regional development entities. Such coordination is already in place with the governments of Quebec and Ontario as well as NRC (Concierge Service). Finally, the NCE Management agree that increased opportunities to share lessons learned across centres should be provided, which will be done through the NCE AGM, webinar series and other appropriate venues.

### **PROPOSED ACTION:**

1. The NCE Secretariat will continue to work with the NCE Management and Steering Committees as well as PSAB to define the “Benefit to Canada” and the review process prior to the next CECR competition.
2. The respective roles and mandates of PSAB and Expert Panels will be clarified and published on the NCE website. The NCE Secretariat will also explore ideas to promote interaction between applicants and PSAB during competitions and monitoring reviews.
3. The NCE Secretariat will investigate methods to better coordinate with the provinces, for example targeted outreach activities across Canada (pending budget availability).
4. Provide opportunities for centres to share lessons learned at the next NCE AGM, webinar series and other appropriate venues.

## CECR Evaluation - Management Response and Action Plan

Recommendation	Program Management Response		
	Response / Action	Responsibility	Target date for completion of action
<p><b>Recommendation 1: Continue to deliver the CECR program and allow flexibility in centre delivery models.</b></p> <p>The CECR program objectives respond to an identified gap in Canada's innovation and commercialization capacity and align with federal and tri-agency priorities. Furthermore, the evaluation shows evidence that the CECR program is achieving several intended outcomes including increasing growth in sales, R&amp;D expenditures, number of employees, and wages among supported companies.</p> <p>Centres are naturally adopting a range of delivery models which correlate with different positive outcomes (e.g., Investors are more likely to drive IP protection while Service Providers are more likely to accelerate time to market and drive company growth). This suggests that flexibility is an asset, allowing the CECR program as a whole to address multiple commercialization challenges.</p> <p>At the same time, some centres (primarily Service Providers) seem to have limited connection to academia and none appear to be directly tapping into current SSH research/innovations. As such, senior management should consider the value of/need for direct connection to academia as well as the value of/need for incorporating a broader perspective on what constitutes innovation.</p>	<p>AGREED</p> <ol style="list-style-type: none"> <li>1. The NCE Secretariat will continue delivering and making necessary improvements to the CECR program, while maintaining the flexibility as an asset.</li>   <li>2. The NCE Secretariat will encourage the centres to strengthen, or better communicate their linkages with academia as appropriate. Successful delivery models will be showcased, for example during the NCE AGM, and other events linking the CECR program with academia such as the AUTM conference.</li>   <li>3. The NCE Secretariat will work with the NCE Management Committee and the SSH community to broaden the program objectives with regards to what constitutes innovation, modify the PSAB membership to introduce a broader skillset encompassing more diverse areas of expertise, and introduce program modifications leading to a more inclusive initiative for the different sectors including the SSH.</li> </ol>	<p>Deputy Director, CECR Program</p> <p>Deputy Director, CECR Program</p> <p>Deputy Director, CECR Program, SSHRC Liaison</p>	<p>September 2017</p> <p>May 2018</p> <p>October 2019</p>



## CECR Evaluation - Management Response and Action Plan

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<p><b>Recommendation 3: Consider appropriateness and feasibility of the following potential areas for improvement:</b></p> <p>a. Clarifying key aspects of the selection criteria, such as the definition of “Benefit to Canada”; the relative importance of whether a centre has regional, national or sector representation; the extent to which applications for round two funding are considered on their own merits and/or assessed in relation to other applications.</p> <p>b. Providing additional opportunities for communication with PSAB as part of the review process, as well as more clarification to applicants regarding respective PSAB and Expert Panel roles and mandates.</p> <p>c. Increasing/formalizing coordination with provincial commercialization strategies due to importance of regional presence and potential for increasing focus on clustering.</p> <p>d. Increasing opportunities to share lessons learned across centres, including sustainability strategies, business practices, etc.</p>	<p>AGREED</p> <ol style="list-style-type: none"> <li>1. The NCE Secretariat will continue to work with the NCE Management and Steering Committees as well as PSAB to define the “Benefit to Canada” and the review process prior to the next CECR competition.</li> <li>2. The respective roles and mandates of PSAB and Expert Panels will be clarified and published on the NCE website. The NCE Secretariat will also explore ideas to promote interaction between applicants and PSAB during competitions and monitoring reviews.</li> <li>3. The NCE Secretariat will investigate methods to better coordinate with the provinces, for example targeted outreach activities across Canada (pending budget availability).</li> <li>4. Provide opportunities for centres to share lessons learned at the next NCE AGM, webinar series and other appropriate venues.</li> </ol>	<p>Deputy Director, CECR Program</p> <p>CECR Program Lead and NCE Comms</p> <p>Deputy Director, CECR Program and NCE Comms</p> <p>Deputy Director, CECR Program and NCE Comms</p>	<p>October 2019</p> <p>March 2018</p> <p>October 2018</p> <p>May 2018</p>