

# EXECUTIVE SUMMARY

## White Paper – Health and Creative Industries



February 2015

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**Industry Canada took the opportunity to produce a white paper following the fourth Montreal Summit on Innovation (MSI) held November 6<sup>th</sup>, 2014. This year's Summit focused on collaborations between health and creative industries, exploring key issues and main barriers in this field and identifying success factors for such partnerships. With the goal of contributing to a better understanding of the potential for collaboration between these two industries, the white paper summarizes these discussions and presents conclusions and recommendations put forth by the panel and speakers at the MSI.**

In the creative and health industry areas, Montreal is well positioned internationally. In 2012, the creative industry had an economic impact of more than \$8 billion and accounted for nearly 100,000 jobs in Montreal. The health industry, in turn, creates roughly 45,000 jobs, including more than 12,000 research and specialist positions across more than 300 public research organizations, three major hospitals, and four major universities who are well known and highly active in this field.

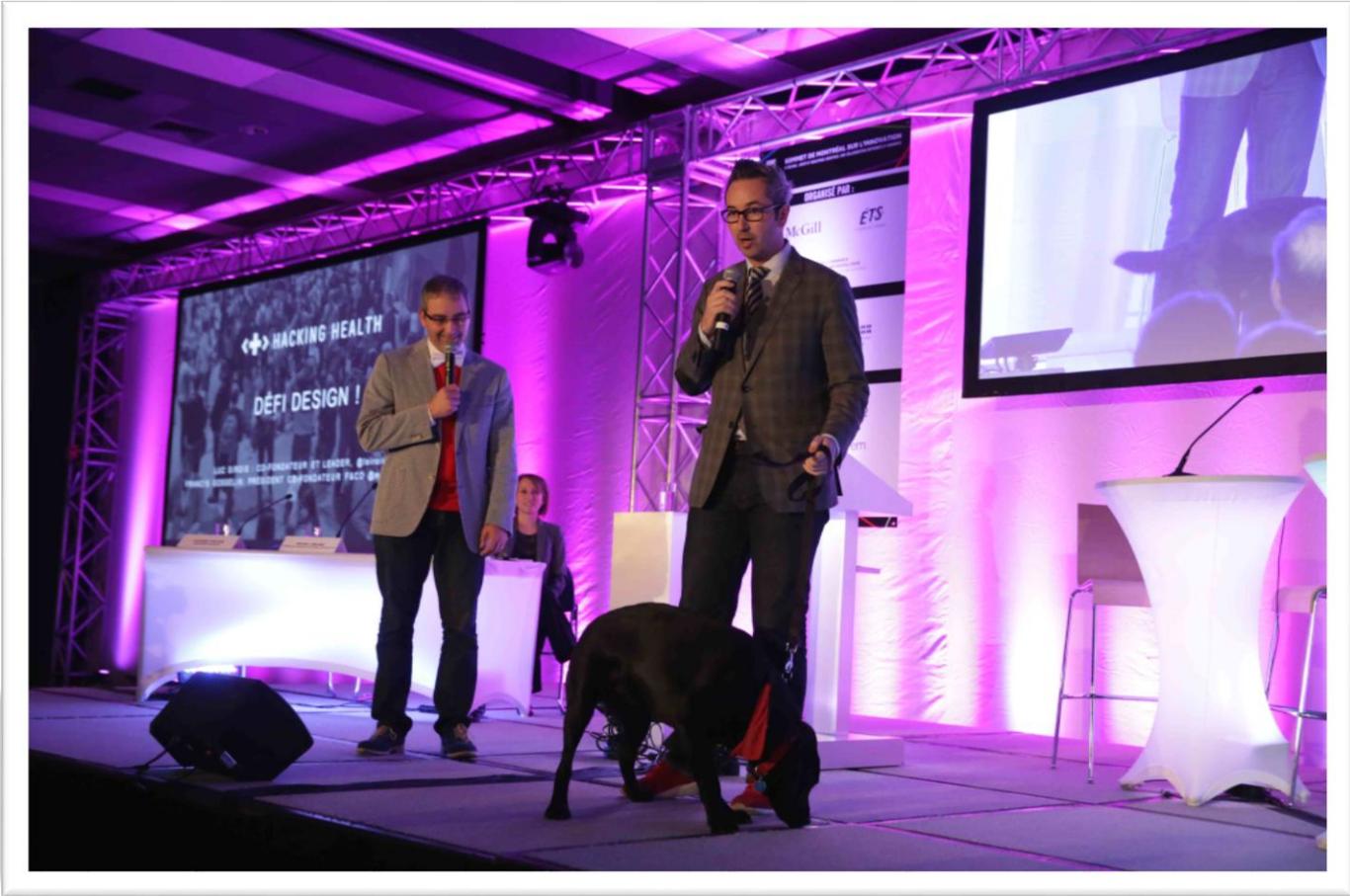
These two industries may at first seem to be from different worlds and have little in common, but their synergies have huge economic, social, and cultural potential. The experts at the MSI 2014 showed that there are a modest but growing number of achievements brought about by the merging of these two sectors. With the challenges of an aging population, sedentary lifestyles, and an unsustainable increase in the structural costs of health care, there is an urgency to act and respond in new ways. It was clear from the Summit that a collaborative, creative, intersectoral, and open innovation approach to health care can open up a host of opportunities that are within reach if the means to integrate viable ideas into the health system are available.

The speakers came to a rational consensus: improving the health sector requires navigating a maze of complexities as well as organizational and professional interactions characterized by multiple challenges. But they also provided a roadmap for communities on both sides – patients, caregivers, health network administrators, researchers, students, manufacturers, financiers, and artists – by presenting a list of best practices originating from these communities that target patients, and ensure shared revenue.

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The following are their main findings on the collaboration between health and creative industries:

- ✓ New industries are emerging in Montreal and around the world that are at the intersection of creative and health industries. Some developing sectors with a high economic and social potential for the health system include smart clothing, a promising but challenging field due to fragmentation and to the numerous companies struggling to differentiate themselves (according Hadi Salah, an expert in this sector who attended the MSI). To take off in Montreal, the e-textile industry would benefit from close and regular contact with communities that can support it (e.g. investors, public/users, testing laboratories).
- ✓ In an era of chronic disease and the democratization of access to health information, the future of the health system cannot be imagined without the systematic contribution of patients. Companies, too, have an interest in understanding the dynamics of open innovation to better meet people's needs regarding their health.
- ✓ Similarly, there is a wealth of opportunities in the video game industry to create economic and social value. Serious gaming demonstrates how the creative industry can be used to change people's health. Game developers have long known how to engage and captivate players for hours and they are now applying their expertise to clients seeking to improve their health. Montreal, a global hub for the gaming industry and a research cluster for the health sector, must tackle all the new challenges of growth in this industry.
- ✓ Cognitive computing has also seen the creation of multiple businesses based on this new technology. The training received by students from Toronto on the IBM Watson technology could be used to the advantage of industries in Canada and Montreal.
- ✓ Art demystifies the hospital as a place of suffering and turns it into a public place of healing. Patients who benefit from the presence of art in hospitals are uplifted and find it helps rebuild their spirits. With benefits that include prevention and healing, art can help patients recapture well-being and can help usher in the healing process, in both mind and body.
- ✓ Living labs allows for large-scale experiments that can be applied to real-life problems. Conducted in a real environment, these experiments are better suited to provide solutions within the constraints of various collaborators. Living labs provides a logical way to move from theory to practice, from idea to innovation, all while minimizing the risks associated with implementing research on a large scale.



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## Specific Recommendations

### Mobilization, coordination and the role of QI

1. In general, continue to mobilize talent among QI members to support and integrate the energy of local initiatives and ideas presented at the MSI 2014 with the explicit aim of strengthening collaborations in clinical and industrial settings, in accordance with the priority solutions identified (the central role of the patient, a hands-on approach, and all the other reported challenges and success factors).
2. Communicate the challenges, success factors, and recommendations that emerged from MSI 2014 to the actors involved in collaborative projects with the QI and among its partners.
3. Ensure that the MSI Health and Creative Industries conference gives rise to recurring events on the topic, under QI leadership and key organizations such as McGill, ÉTS, the Board of Trade of Metropolitan Montreal, Ubisoft, Cossette Lab, Hacking Health, MEDTEQ<sup>1</sup>, and the faculties of our major universities.
4. Stimulate entrepreneurship by organizing business networking events to pool together ideas and generate opportunities. The MSI 2014 highlighted the high potential of smart clothing, serious gaming, and cognitive computing to deal with health challenges. These new industries should be integrated into Montreal's innovation ecosystem.

### Education and culture

5. Ensure that government policies favour:
  - a. The creation of a new intersectoral generation, which will include scientific and medical dimensions sensitive to the impact of arts and culture on the health and well-being of patients.
  - b. Promotional initiatives and implementation of arts and culture in health institutions, such as objective 10 of Quebec's Agenda 21 for Culture (A21C)<sup>2</sup>.

<sup>1</sup> MEDTEQ is a consortium on industrial research and innovation in medical technology in Quebec. Established in 2012, MEDTEQ already includes more than 65 institutional, university/Cégep, and industry members to meet the challenges of collaborative research in medical technology.

<sup>2</sup> *Introduire l'art et la culture en milieu de soins et de services sociaux [Introducing art and culture to health care and social services]* – Ministry of Culture and Communications and the Centre hospitalier de l'Université de Montréal (CHUM) 2012.

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## **Promotion**

6. Take advantage of the international influence of QI and its partners by mobilizing the Board of Trade of Metropolitan Montreal, Montreal International, and other partners to attract developers and pioneering industry partners to Montreal and integrating creative and health industries (e.g. IBM Watson with Apple and Google with smart clothes).
7. Provide international visibility during C2 Montréal and the Startup Festival to innovators from Montreal's health and creative industries.
8. Ensure that the Board of Trade, QI, and other stakeholders value, in their activities, Montreal's unique position in the convergence of the creative and health industries.

## **Implementation**

9. Encourage experiments like living labs to illustrate and confirm the public's enthusiasm for health innovations stemming from creative industries, thereby building on the potential of living labs to validate citizen-based and patient-oriented innovations.
10. Use, sustain, and replicate existing projects (by SAT, CHU Sainte-Justine, PERFORM, etc.) to take advantage of the expertise already developed and applied in creative and health industry partnerships.
11. Augment the creation of new businesses by supporting incubation, acceleration, and structures that emphasize student involvement by connecting universities and colleges.
12. Using existing infrastructure and innovative tools (living labs, health centers, faculties, hack-a-thons, incubators), forge and maintain strong links between start-ups and established companies on one hand and between academic sectors (students, teachers, administrators), the public, and the creative and health industries on the other.

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13. Integrate the Hacking Health movement in the innovation process with, among others, the partners of MSI 2014 and the innovation community at MEDTEQ medical technologies. Hacking Health's ideas that are already in development should lead to the creation of businesses and applications for the health care sector.

14. Through government policies that support innovation and knowledge transfer, encourage initiatives that bring together the strongest sectors in Montreal, facilitate inter-cluster collaboration, and foster links between academia and industry.

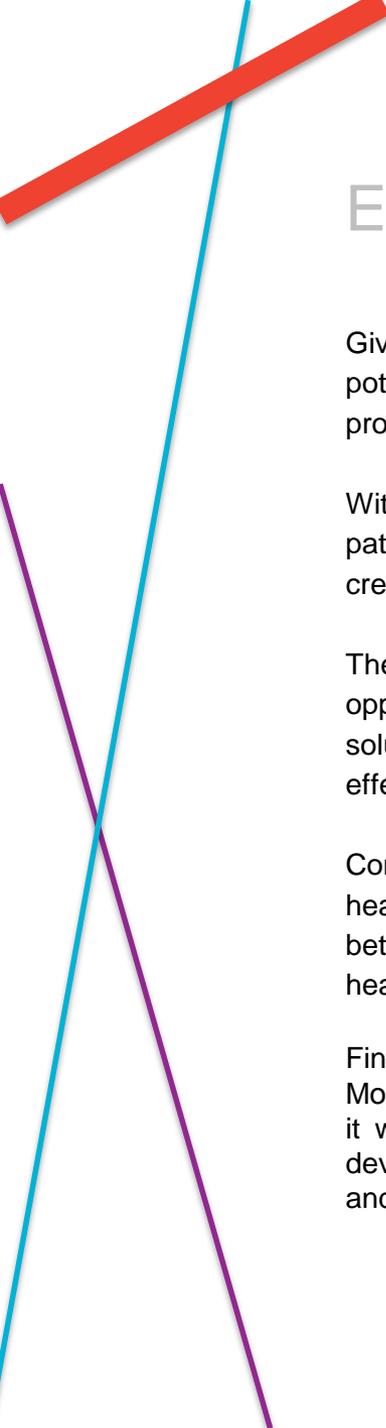
## Specific opportunities for the Quartier de l'innovation (QI)

ÉTS and McGill, founding partners of QI, emphasized the creation of new avenues for meeting these challenges, notably:

- QI's creativity hub, which will move into the old Planetarium after transforming it into a gathering place for innovative sectors and the community alike, could easily integrate networking events and become a great place to monitor collaborative projects.
- QI's Mat'Inno, a unique series of networking events being launched in 2015, will happen once a month from 8 to 9 AM and will be free to all members of the QI. They will feature a scientist chosen by the Vice-Principals of research from member universities and will aim to be a mutually beneficial opportunities for stakeholders from various communities to meet.
- *Innovation Québec*, a joint initiative between McGill and CEIM ([Centre d'entreprises et d'innovation de Montréal](#)), has recently received federal a contribution of \$6.2 million over the next five years. The project will offer a range of support services, expertise, and resources to students, McGill faculty, and others for the incubation and growth of their business ideas in creative and health industries<sup>3</sup>.

<sup>3</sup>Canadian Government supports CEIM's Innovation Project – Université McGill 2014  
<http://www.mcgill.ca/channels/news/canadian-government-supports-ceim%E2%80%99s-innovation-project-240000>





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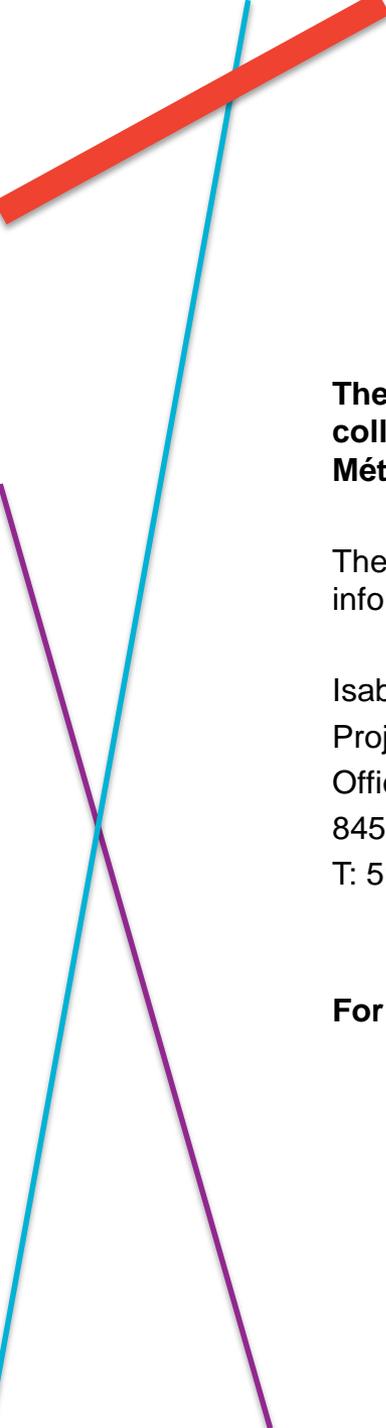
Given the depth of its partner universities' expertise, the Quartier de l'innovation has tremendous potential to be a catalyst, an experimental zone, and a nexus for ongoing and future collaborative projects between creative and healthcare industries.

With the participation of creative industries, health industries were invited to give a more active role to patients who are willing to help in the pursuit of physical and mental wellness, and in the process have created a winning partnership to help meet the challenges facing the health care system.

The objective of bringing the health and creative industries together has been achieved, with a host of opportunities for patients that are within reach. Innovators have taken two main approaches to finding solutions: using digital technology, which has become more and more available, efficient, and cost-effective; and re-humanizing relationships between patients and the hospital environment.

Conceiving and implementing successful ideas will require the many stakeholders that make up the healthcare ecosystem to work together to find practical, simple avenues to intersectoral collaboration between patient communities, research groups, healthcare clinicians, creative industry innovators, and healthcare industry entrepreneurs.

Finally, actualizing the recommendations identified during the MSI 2014 would not only capitalize on Montreal's incredible assets and its enviable position in the areas of creative and health industries, but it would help elevate the city to a world-class innovation hub, generating an entire new sector of development – a new frontier beyond the shared borders and partner communities of the city's health and creative sectors.



**The Montreal Summit on Innovation 2014 was organized by McGill University, in collaboration with École de technologie supérieure (ÉTS) and the Board of Trade of Métropolitain Montreal.**

The complete “Health and Creative Industries” white paper is available upon request. For more information, please contact:

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**For more information on the QI, please visit: [www.mcgill.ca/qi](http://www.mcgill.ca/qi)**