

Fonds de recherche du Québec

Société et Culture
Santé
Nature et Technologies





ENGAGING ORIENTATIONS

The first year of my mandate as Québec's Chief Scientist was marked by the major restructuring of the Fonds de recherche and by outreach and networking activities (a tour of universities, colleges and industries, etc.), while the second year focused on the establishment of key orientations for research and innovation. Much of my time was devoted to the future of research and research training, both in my capacity as advisor to the Minister of Higher Education, Research, Science and Technology, Pierre Duchesne, and as chairman of the boards of directors of the three Fonds.

Indeed, I have been working in close collaboration with the Minister and his team in the development of Québec's new research and innovation policy, the Politique nationale de la recherche et de l'innovation (PNRI), which is set to get underway at the end of 2013. The general thrust of this policy stems from extensive consultations held in 2012 with the university and industry research and innovation community, in addition to several other important events that I attended this year: four preparatory meetings to the Summit on Higher Education (November 2012–February 2013), the Summit itself (February 2013) and the Assises nationales de la recherche et de l'innovation (April 2013). The Fonds de recherche du Québec will have a key role to play in the deployment of the upcoming PNRI, an ambitious and innovative policy that will serve to mobilize all actors in the fields of research and innovation across Québec.

On another note, I led strategic planning efforts for 2014–2017 with the scientific directors and boards of directors of each Fonds. A plenary session was held with all members of the three boards in order to develop a common vision of the mission of the Fonds—in particular with regards to intersectoral research—and to promote inter-fund actions. To that purpose, I established a series of research forums that will be described later in this report. A first call for project submissions was launched by the three Fonds in the wake of one of the forums, which dealt with population aging.

In 2012–2013, I attended many meetings and participated in forums, discussions and symposia in Québec, Canada and abroad with the intention of promoting the Fonds and Québec research excellence, establishing collaborations and developing partnerships. As I did during the first year of my mandate, I also took part in several public and private projects affecting future academics and young researchers. Given the issue's importance, an inter-fund student committee is currently being set up, on which the student representatives of the three boards of directors of the Fonds will sit.

On the organizational level, significant progress has been made regarding the integration of common services, harmonious inter-fund collaboration between staff members and the development of a sense of belonging within the organization.



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Chief Scientist Officer

Chief Scientist Officer's Report 2012-2013

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❖ **Scientific missions**

❖ **Development of large-scale
intersectoral projects**

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CONTEXT

In September 2012, as the Chief Scientist entered the second year of his mandate, the people of Québec voted in a new government led by Premier Pauline Marois. When presenting her new cabinet on September 19, Premier Marois named Pierre Duchesne as head of the new Ministry of Higher Education, Research, Science and Technology (MESRST), entrusting him with “the mandate to propose measures that will bring Québec to the forefront of those places in the world where private and public investment in research and development is at its highest”. An important mandate, given the fact that “historically, the prosperity of nations has been based on knowledge”, affirmed the Premier, adding: “Education, innovation and research are the basis of the prosperity that the most advanced societies have enjoyed for the past centuries”. This intent will be achieved with the help of a national research and innovation policy.

In the wake of this speech, the Minister of Higher Education, Research, Science and Technology invited universities, the student community and civil society organizations to a Summit on Higher Education, held on February 25 and 26, 2013, which was preceded by four preparatory meetings. Following this event, five projects were set up with the objective of creating a framework law on universities, college education, university funding, financial aid for students and the future national university council. In April, the Minister held the Assises nationales de la recherche et de l’innovation, marking the start of the development of the future national research and innovation policy, due to be released by the end of 2013. The Fonds de recherche du Québec, under the leadership of the Chief Scientist, will have a key role to play in the deployment of this new policy.

In addition to these major political developments that are shaping the direction of research and innovation in Québec, work began on the development of a 2014–2017 strategic plan for each of the three Fonds de recherche, beginning with extensive consultations with the scientific community—universities, researchers, research students and partners. In May 2012, the scientific director and board of directors of each Fonds identified the issues and defined their orientations and objectives for the next three years. The strategic planning takes into account the work being done on the PNRI, with which the Chief Scientist is closely associated.

This second Chief Scientist’s report covers a period marked by an economic downturn in Québec. In this context in which public funding for research is under pressure, research has an important role to play in economic development and the advancement of Québec’s knowledge society.



KEY ACHIEVEMENTS

❖ Scientific missions

Development of national and international partnerships

Given his strategic role in the development of research and research training, the Chief Scientist took part in various scientific missions outside the province and hosted several foreign delegations.

These activities included attending the Advanced Medical Technology Association (AdvaMed) conference in Boston in September 2012. This annual event fosters international business development by bringing together medical technology leaders from around the world. The Chief Scientist took the opportunity to meet with representatives of biomedical equipment manufacturers and various governments.

During the American Association for the Advancement of Science (AAAS) Annual Meeting, held in Boston in February 2013, the Chief Scientist took part in a round table discussion on Canada's expertise in innovation, different types of collaborations, and the importance of excellence and leadership.

In March 2013, the Chief Scientist signed a collaborative agreement between the Fonds de recherche du Québec and the Research Foundation – Flanders (FWO), in the presence of the Québec Premier. This agreement will facilitate collaboration between researchers in Québec and Flanders in priority intersectoral areas.

The Chief Scientist took part in a Québec mission to the Biotechnology Industry Organization International Convention (BIO 2013) in Chicago in April 2013, led by the Québec Minister of Finance and the Economy, Nicolas Marceau. BIO 2013 provided numerous networking opportunities and the chance to take part in panel discussions on topics that included personalized health care. Minister Marceau also seized the opportunity to launch a health sciences public-private partnership fund.

To raise awareness of the Fonds and Québec research, the Chief Scientist led

the sciences and technology workshop during the 28th Annual Meeting of Heads of Foreign Missions in Québec in May 2013. The event brings together foreign officials posted in Québec.

In June 2013, the Chief Scientist accompanied the Québec Premier, Pauline Marois, along with a dozen representatives of universities and the Ministry of Higher Education, Research, Science and Technology, on a trade mission to Mexico. This mission served to strengthen the synergy between trade and research-innovation, and resulted in the signing of four interuniversity collaboration agreements.



Signature of a partnership with the Research Foundation – Flanders, Belgium.

Finally, in July 2013, the Chief Scientist met with the chairman and CEO of France's National Institute of Health and Medical Research (Inserm), André Syrota, and his delegation to explore new collaborations with this long-standing research partner. In August, he hosted the president of the National Natural Sciences Foundation of China, Yang Wei, and his delegation. In addition to discussions on future collaborations, this meeting led to the renewal and development of the research program on aging between the Foundation and the Fonds de recherche du Québec – Santé.



The Premier of Québec, Pauline Marois, with members of her delegation during the economic and commercial mission to Mexico.

❖ Development of large-scale intersectoral projects

Forums and other research-oriented events

The province's future research and innovation policy (PNRI) identifies three major social challenges facing Québec: demographic changes, sustainable development and the Québec identity. To meet these challenges, the policy foresees the implementation of large-scale intersectoral research projects. The Fonds, under the leadership of the Chief Scientist, held a series of research forums, as well as a one-day research training seminar and a round table on ethics research, in preparation for future calls for large-scale project proposals to address these three challenges. These forums followed up on the intersectoral project proposals submitted by the scientific community during consultations led by the Chief Scientist in the winter of 2012.

Forum on northern research

This one-day seminar on northern research, held at the Montréal Delta Hotel on September 6, 2012, was attended by 110 participants, including

the vice-presidents of research of all Québec universities as well as researchers who had submitted proposals for intersectoral research projects focusing on northern issues. The event revealed the rich potential of northern research and the diversity of current expertise in the field, and elucidated possible avenues for research and collaboration.

Round table on ethics research

This round table, which brought some thirty people to the Montréal Delta Hotel on October 17, 2012, aimed to identify Québec's key players in the field of ethics research and to identify needs when it comes to the organization of research and the training of ethics researchers. Discussions led to proposals for



The Chief Scientist is speaking to vice-presidents research and students of Québec universities during the forum on northern research.

innovative drivers for the field of ethics within the framework of the future PNRI.

Forum on the aging population

This forum, held at the Montréal Science Centre on November 27, 2012, brought together about one hundred participants from the public and private research sectors. Its aim was to determine how to go about using research and innovation to improve Québec's position in the field of the science of aging. Various themes were explored, from the genetics of cellular aging, personalized medicine and home automation to architecture, transport, arts and culture, the economy and sustainable development. In the wake of the forum, the Fonds called on the scientific community to submit proposals for new research projects.

Forum on art, culture and well-being

This forum, which was attended by over one hundred participants at the PHI Centre in Montréal on February 8, 2013, presented the central and innovative role of culture and the arts as a key component of societal well-being. The event was an opportunity for exploring the development potential of research/



The forum on art, culture and well-being was highlighting the key role and high value of research, art and culture in the context of societal well-being.

creation between actors from the arts and research communities and the public, private and community sectors.

Forum on research training

Around one hundred participants from academia, government departments, organizations and granting agencies met at McGill University on April 30 to hold discussions with students with the aim of defining a common vision of future

research training needs. Of particular interest was the subject of graduate studies, including program content, supervision and support for students. With this initiative, the Fonds reiterated their commitment to promoting reflection and discussion over the question of training future generations of Québec researchers.

Forum on sustainable development

This carbon-neutral event brought together more than 170 researchers and government, private sector and civil society representatives whose work and concerns are related to sustainable development. Held at the Château Frontenac in Québec City on June 3rd, this one-day seminar allowed participants to develop new avenues for sustainable development research, to discuss the challenges facing research and to explore new opportunities for intersectoral collaboration, while addressing the contribution of academics, the needs of research users and the strategies that are favoured by intersectorality.



The forum on sustainable development yielded new avenues for research.

Inter-Fonds committees

Responding to common needs

The boards of directors of the Fonds have set up three inter-Fonds committees to work on increasing international partnerships, developing large-scale intersectoral projects and improving the funding of shared platforms.

The mandate of the committee for international partnerships includes performing an inventory of the international partnerships of the three Fonds de recherche and existing MESRST support programs for international research, as well as assessing the current state of international university collaborations. This exercise will contribute to the creation of a development strategy for international partnership.

The FRQ committee for large-scale intersectoral projects aims to strengthen efforts in promoting intersectoral research. It is working on developing a funding strategy, guided by the 65 large-scale project proposals submitted by the scientific community following the call for submissions made in 2012. This same corpus of project proposals was used in planning the research forums organized by the Fonds and in the development of the PNRI.

The committee for the operation and funding of platforms, equipment and major infrastructure was set up with the goal of better coordinating the actions of the Fonds and those of

the MESRST, the Canada Foundation for Innovation (CFI) and other potential partners. To date, the committee members have studied the state of funding programs for platforms and infrastructure in Québec (universities, MESRST, CFI) and Canada. They have also examined various possible approaches to improving their utilization, as well as international data base structures.

Promoting Québec research

Research and research students in the spotlight

On the occasion of the 81st ACFAS conference held in May 2013, in the presence of Minister Pierre Duchesne, the Chief Scientist unveiled the new Web space *Le Québec en recherche*, a showcase of excellence featuring Québec researchers and research students in the fields of natural sciences and engineering, health sciences, social sciences, humanities, arts and literature.

The launch was held at the end of a one-day symposium entitled

Le goût de faire de la science, presented by the Chief Scientist. Attended by more than sixty participants including the winners of the Étudiants-chercheurs étoiles award and of the Prix du Québec research award, the symposium was an opportunity for discussing and debating the best ways to promote careers in research. A few months earlier, in response to an invitation from Minister Duchesne, a dozen Étudiants-chercheurs étoiles award winners

attended the Prix du Québec prize giving ceremony. Established by the Chief Scientist during the first year of his mandate, the Étudiants-chercheurs étoiles award competition has elicited growing interest since its launch and attests to the excellence shown by the new generation of graduate students. Three Étudiants-chercheurs étoiles awards are presented every month by the Fonds.

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