

Submission from
the Université de Sherbrooke
Presented as Part of
the Pre-Budget Consultation in
Advance of the 2023 Budget

Recommendations

The University of Sherbrooke recommends that the federal government:

- 1. Enhance its postgraduate scholarship program across all disciplines.
- 2. Adopt sound and effective immigration policies to facilitate the admission of international students.
- 3. Invest in research and innovation projects focused on technology transfer and commercialization in emerging sectors, including quantum sciences, microelectronics, sustainable development, and life sciences.
- 4. Support the deployment of commercial flights at Sherbrooke Airport.

The Université de Sherbrooke (UdeS) is the heart of a major teaching and research centre in Quebec. Renowned for its practice-based programs, work/study program, and innovative approaches to research and technology transfer, it generated research revenues of \$248.6 million in 2021-22, an increase of nearly 20%, keeping in mind it already ranked 14th among Canadian universities.

At the UdeS, academic activities take place in a context where sustainable development is a concern that is considered in all decisions. The UdeS offers several programs in sustainable development (SD) and the environment, thanks in particular to its Environmental and SD Training Centre. The University has built an integrated multi-scale hydrology research complex (the first in North America), a solar park dedicated to partner research (the largest in Canada) and a large research laboratory for the recovery of innovative and sustainable materials and structures. The UdeS has obtained the international Platinum STARS (Sustainability Tracking, Assessment & Rating System) certification in sustainable development, the highest award in SD for an educational institution.

The UdeS is recognized worldwide for the quality of its partnerships with industry, its successes in technology transfer, and its initiatives in entrepreneurship and open innovation. Closely linked to industry stakeholders, it has implemented the *Innovation, Partnerships, Entrepreneurship* (IPE) strategy, a university—business partnership strategy aimed at accelerating, in strategic areas, the transfer of knowledge and applications developed on its campuses until they are put into production in society.

This strategy builds on the UdeS integrated innovation chain (IIC), which, since 2010, has received more than \$1 billion in investments, including 60% from the private sector. In addition, the UdeS is a partner in the first two innovation areas designated by the Quebec government. Separate and complementary, the Sherbrooke quantum and Technum Québec areas involve public and private investments totalling \$690 million. The UdeS is also a major research hub in life sciences, for example in RNA research, drug discovery, and the use of health metadata to help professionals make decisions about personalized care and services.

All of these successes in research and innovation, technology transfer, and public- and private-sector partnership would not be possible without the talent and work of the UdeS community and without the dynamism and economic and social vitality of the communities in which it is located.

The UdeS consists of 31,715 students, of which half are graduate students, over 300 postdoctoral scholars, 124 recognized institutes, chairs, and research centres. Each year, there are more than 5,000 paid co-op work placements, thousands of internships in schools and hospitals, 300,000 hours of community services carried out by our students, and 230 university projects in response to community needs.

To help the UdeS and its many partners continue and accelerate their contribution to the transformation of Canadian society, the federal government must support their efforts to attract and retain talent by:

- increasing the number and value of graduate scholarships across all disciplines;
- aligning immigration policies to facilitate the reception of international students.

The government must invest in technology transfer and collaboration between the private sector and universities. These investments are essential to maintaining the competitive advantage of Canada and its regions in innovative sectors such as quantum science, microelectronics, sustainable development, and life sciences.

The federal government must also commit to supporting regional development projects that foster the creation and strengthening of national and international research partnerships and with the industry in highly competitive areas. Commercial flights at Sherbrooke Airport would greatly contribute to stimulating such partnerships.

1. Significant investments in student scholarships

Canadian universities and businesses are deeply affected by the global competition to attract and retain talent. Graduate students are a crucial part of the development of research at the UdeS and represent the highly skilled staff of the future that businesses desperately need.

Canada's economic future depends, in large part, on its ability to occupy a leading position (and retain it) in emerging domains. To achieve this, investments are essential and urgent so that universities attract more high-level students to their graduate research programs. More specifically:

- The government should increase the number of scholarships available to graduate students across all disciplines to enable the largest number of high-level students to devote themselves fully to their studies;
- The government should increase the value of graduate scholarships. Canada needs a significant number of the best students pursuing graduate studies in order to increase the pool of highly qualified staff. However, the scholarship amounts have not been indexed since 2003, which represents a real decrease in value of 48% in 20 years. In 2022, the value of grants from granting agencies puts students below the poverty line. As a result, their value has become insufficient, especially in the current labour shortage context, while the training of highly qualified staff to support promising sectors for Canada is essential.

2. Aligned immigration policies

International student mobility and talent attraction require well-aligned immigration policies between levels of government. Although international students make up only 7.5% of the total number of students at the UdeS, they are essential to the growth of its graduate programs and help accelerate UdeS research projects in precision medicine, cybersecurity, green technologies, and engineering to name but a few. They are also a solution to our partners' pressing needs for highly qualified staff.

The UdeS appreciates the investments announced to improve the visa processing system. However, several administrative challenges remain, such as delays in obtaining them and the very low proportion of admissions from certain countries in the Francophonie. Resources are needed to facilitate the entry and eventual integration of international students into the labour market.

To this end, we recommend that the Government of Canada:

- Increase the number of staff dedicated to visa processing in Canada and in international offices, especially for Francophone countries;
- Commit to setting and meeting clear targets for visa processing times for new students and teachers;
- Work in collaboration with the Government of Quebec to enable the simultaneous processing of the Québec Certificate of Acceptance and the federal study permit;
- Review selection criteria to encourage recruitment from Francophone countries.

3. Galvanize technology transfer and commercialization

Valuing the results of university research is a central element of Canada's system of innovation and economic development. Several Canadian universities, including the UdeS, are strategically positioned to accelerate the technology transfer process, increase the commercialization rate for research results and contribute to the economy of the regions.

Much of the research done at the UdeS is in key sectors for the growth of the Canadian economy (sustainable development, technological changes for businesses and society, health care and services, valuing diversity, etc.), often in cooperation with businesses and the public sector. Those partnerships allow for faster development of research results, throughout the innovation chain and for the benefit of all.

There are additional challenges in some particularly innovative sectors. The risks and costs associated with research and development are very high, a further barrier to private sector and university investments. In these areas, to stimulate the development of strategic partnerships, to advance research and to contribute to innovation in Canada, universities and their partners must be able to rely on:

- a highly skilled and talented workforce;
- state-of-the-art infrastructure; and
- a collaborative ecosystem conducive to growth, particularly to keep our start-ups and innovative SMEs in Canada.

Universities that, like the UdeS, have developed beneficial university—industry partnerships and obtained the trust of the entrepreneurial community are best positioned to face these issues and meet these challenges. They already have the trust of their partners, a pool of talent and the state-of-the-art infrastructure sought by the private and public sectors.

With the partnerships they build, they enable industrial partners to become more rooted in their communities, which creates a virtuous circle where more qualified people are attracted from around the world, thus increasing Canada's competitive benefits from those partnerships.

Despite this favourable strategic positioning, universities have few resources to maximize their collaboration with the private sector.

Targeted government investment in research and innovation projects focusing on technology transfer and commercialization in emerging sectors would help Canada

ensure the development of strategic sectors like quantum sciences, microelectronic applications, sustainable development and life sciences while maximizing short- and long-term benefits for the Canadian economy.

Such investments would be fully aligned with the federal government's objective, outlined in the Minister of Innovation, Science and Industry's mandate letter, to establish a fund to help postsecondary institutions commercialize cutting-edge research results.

4. Support the development of a regional transportation supply

In the context of fierce competition for labour and private investments in research and development, transportation issues are of paramount importance. For the UdeS, making its facilities and researchers known and exchanging with its private partners is extremely important. Although information technology facilitates exchanges, meetings and visits in person remain essential to building partnerships with better teams, wherever they are in the world. Effective travel helps us get to know each other, form new alliances, increase our research, innovation and commercialization projects, and better attract talent and foreign investment.

Despite the strong support of businesses and major institutions in the area, Sherbrooke is the only city in Canada of its size without air service.

To support growth in the Sherbrooke region as a leading partner in the Quebec, Canadian and global innovation ecosystem, the UdeS counts on the active support of the federal government for the deployment of commercial flights to the Sherbrooke Airport.

Conclusion

The UdeS thanks the House of Commons Standing Committee on Finance for the opportunity to share our federal priorities. We strongly believe that, by investing in the training of highly skilled talent and accelerating partnerships with universities, Canada will have the tools needed to increase it global presence.