

A B R I D G E D V E R S I O N

UNIVERSITIES: WORKING IN PARTNERSHIP



BRIEF BY THE CONSEIL SUPÉRIEUR DE L'ÉDUCATION
TO THE MINISTER OF EDUCATION

May 2002

Québec 

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This brief was prepared for the Conseil by the Commission de l'enseignement et de la recherche universitaires, which is made up of the following persons:

Édith Côté, Brigitte Gemme, Joanne Greene, Hélène Guy, Danielle Lafontaine, Serge Larochelle, Monique L'Hostie, Yvan Marineau, Jacques G. Martel, Jocelyne Mathieu, Bernard Morin, Bernard Robaire, Mihai Scarlete and Soumaya Yacout.

The following persons also helped prepare the brief as members of the Commission when it began its work:

Jean-Claude Bourassa, Ian Sydney Butler, Joël De La Noüe, Pierre Lapointe and Geneviève Tanguay.

Drafting:

France Picard, coordinator, Commission de l'enseignement et de la recherche universitaires.

Research:

Jean Lamarre, researcher, Conseil supérieur de l'Éducation, France Picard, coordinator, Commission de l'enseignement et de la recherche universitaires, Suzanne Mainville, researcher, Conseil supérieur de l'Éducation, Monique Ouellette, freelancer, Marie-Alexandra Fortin and Juanita Lewis, trainees.

Technical support:

Documentation: Francine Vallée

Data collection and presentation: Mélanie Julien and Bruno Bérubé

Secretarial support: Marie-Andrée Ayotte

Publishing: Michelle Caron

Translation: Benjamin Waterhouse

Design and layout:

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ANALYZING PARTNERSHIPS: THE UNIVERSITY VIEWPOINT

*Do partnerships
affect the university's
mission?*

The objective of this brief, *Universities: Working in Partnership*, is to examine the effect of partnerships on the future development of Québec's universities. By focusing on the university's perspective, this brief sheds light on developments in the area of technological and social innovation, a key area for the implementation of partnerships.

How do partnerships affect the mission and future development of universities? What type of supervision do universities provide for partnership projects? How are research and training partnerships integrated with other university activities? These are the questions the Conseil sought to address in this brief.

*The role of the
universities in the
innovation system:
an international
focus*

The new focus on partnerships

On all continents, partnership has increasingly become a focus of higher education systems. In 2000, the OECD organized a series of conferences for university and government administrators from over 40 countries, to look at business/university relationships. The conferences emphasized the strategic importance of university research and knowledge transfer for economic development in all countries, especially given the current context of globalization.

In Québec, the Conseil de la science et de la technologie has made a significant contribution in this area, highlighting the development of innovative companies, public bodies and community organizations. According to this Conseil's advisory report, training in sciences (natural and social), advanced vocational training, continuing education and the production and transfer of new knowledge all foster innovation, and the contribution made by universities and colleges is a factor in the development of innovative organizations.

Major trends

In both Québec and Canada, in recent years, the government has introduced new policies concerning universities and university funding, scientific development, and innovation. The policies provide for the application of various measures, the implementation of plans of action, and the establishment of organizations to promote technological and social innovation. Partnerships between universities and the community are strongly encouraged. Other aspects of the trend to partnerships include the following.

The role assigned to universities in public innovation policies in Québec and Canada

- Innovation is a key factor in national strategies for economic growth and social development. The universities produce knowledge, the foundation for innovation, which results from the transfer of scientific discoveries from universities to the business sector.
- Universities in Québec and Canada make a greater contribution to R&D than in other OECD countries, given that the industrial sector is largely made up of small and medium-sized businesses. Thus the major role that public policy attributes to the universities in the innovation process is an extension of their already considerable contribution to national research efforts.
- Innovation is founded on the ability to transfer knowledge for use in the community. To support the universities in this function, peripheral organizations involved in knowledge transfer and liaison activities will be consolidated.
- Innovation concerns all fields of study. In Québec, social innovation, which involves the human and social sciences, arts, literature and education, is also important.
- Innovation and the transfer of knowledge raise the issue of intellectual property. Public policies reaffirm a university's ownership of the intellectual work produced within its walls using public funding, and universities are urged to harmonize their institutional rules on intellectual property.
- Funding for indirect research costs (use of equipment, laboratories and libraries) is fixed at 40% of all public research funding. Universities are urged to harmonize their procedures in this area when negotiating research contracts.

Partnership: a key factor in the strategic orientations and the restructuring of funding agencies

Research funding agencies list the establishment of partnerships as one of their strategic orientations. Partnerships became a key factor in the creation of funding agencies during the 1990s: a partnership must be established before a research grant can be received from the Canadian Network of Centres of Excellence (NCEs), the Canadian Foundation for Innovation (CFI) and Valorisation-Recherche Québec (VRQ). In addition, the partnership-based approach underlies the reorganization of funding agencies in Québec.

*The development
of peripheral
organizations*

In Québec, liaison and transfer centres and college technology transfer centres were established in the 1980s. Recent public policies have promoted the establishment of organizations peripheral to the university network, which offer liaison and knowledge transfer services between the universities and the community. In light of recent guidelines, their role in the innovation process is expected to increase. In addition, several research promotion corporations, under the responsibility of the VRQ, began operating in 2000 with a mandate from the government to market university research. In short, a network of peripheral organizations now establishes and coordinates new partnership agreements involving the universities. In the view of the Conseil, these organizations could help structure future interaction between universities and the community.

Concerns

*The risk of
compromising the
university's mission*

The orientation of public policy towards greater reliance on the partnership-based approach and the consolidation of the universities' role in developing technological and social innovation have led a number of players to voice their concerns. The main issues raised are the threat to the university's mission that the development of partnership-based activities may represent, the risk of distortions in the research funding process and the development of study and research areas, the management of intellectual property rights for work produced in partnership, the dissemination of research findings, the risk of undermining scientific integrity, and the risk of conflicts of interest involving university faculty.

Tensions

*A lack of consensus
concerning the
legitimacy of
university
partnerships*

Attitudes concerning partnerships have tended to polarize between various groups within the university community, and between the universities and their outside partners. Government organizations, groups representing university administrators, university teachers' unions, student associations, industry organizations and the media have all identified problem areas.

The impetus for a partnership-based approach comes from government policies, funding agencies and peripheral organizations, as well as from faculty members already committed to partnership projects. When the underlying reasons for partnership development are placed alongside the concerns raised by various groups, it is possible to identify several key areas of tension:

- **the marketing of university research**, opposed by university teachers' unions but supported by public policy
- **the role played by universities in the innovation process**, a central role according to public policies but one that is resisted within the university community
- **the development of university research**, since there are fears that partnership-based research could supplant basic or free research
- **the types of collaboration possible between the universities and outside partners**, given the differences between their respective missions and approaches
- **university resources**, since some observers consider partnerships as a way to compensate for insufficient public funding, whereas others believe that partnerships will reduce the universities' contribution to technological and social innovation
- **the values on which universities are founded**, since partnerships can be detrimental to academic freedom, scientific integrity and a critical standpoint, and can generate conflicts of interest.

EXPLORING THE RANGE OF POSSIBLE UNIVERSITY PARTNERSHIPS

*Various types of
partnerships in all
fields of study*

Partnerships are being developed in all areas of university activity. The data gathered during the consultations conducted by the Conseil provide examples of partnerships that illustrate the diversity of possible models. The projects involve, obviously, research activities, but also teaching and services to the community, and they cover all fields of study. Their form varies depending on the nature and scope of the project, the type of agreement, and the partner organizations.

*A continuum
of partnership-based
activities: from
traditional to
forward-looking*

The types of possible partnerships can be placed on a continuum, ranging from traditional to ground-breaking. The traditional activities include research contracts, consulting work, practical training and cooperative on-the-job training. The new activities include research networks, transfer activities and technopolis or technological city creation. The projects financed by the VRQ, for instance, illustrate this new vision of partnerships. Between the two poles are other forms of partnerships including research groups, centres and institutes, research chairs, professional development activities, and international aid to support the implementation of training and research programs.

<i>Varying definitions of partnerships</i>	The Conseil defines the concept of a university partnership as a joint activity designed to achieve a specified result, involving at least two partners, one from outside the university community, whose interaction is defined by a negotiated agreement governing the overall process. This brief highlights the wide range of possible university partnerships.
<i>The involvement of partners in all project stages</i>	Collaboration between partners is reflected in the intellectual contribution made by each partner. Partners do far more than simply fund university projects, receive students as trainees or request training. They take part in each stage of a project, from the initial design to drafting a training or teaching program, among many other possibilities.
<i>Developing a typology of partnerships</i>	At present, it is possible to identify the variables that circumscribe the range of possible partnerships (type of activity, field of study, status of partners, contribution of each partner to the project, type of agreement, and project scope) and to distinguish between traditional and new forms of partnerships. However, given the current state of knowledge, it is hard to propose a typology, and so the Conseil stresses the importance of continuing research in this area to make it possible to conceptualize the field and report objectively on the development of university partnerships. SETTING GUIDELINES FOR PARTNERSHIP DEVELOPMENT
<i>The need for empirical verification of the effects of partnerships</i>	On the basis of the concerns and tensions outlined previously, the Conseil has defined five key questions. In order to answer them, it has drawn on data from its consultations and from existing work in the field. The resulting portrait of the situation underlines specific strengths and weaknesses and leads to the definition of five guidelines and eighteen recommendations addressed mainly to the Minister of Education, but also to the Minister of Research, Science and Technology, university administrators, university faculty members, and the directors of research funding agencies in Québec. Is university involvement in innovation compatible with the university's mission?
<i>The university's mission and partnership-based approaches</i>	The Conseil considers that the statement of the university's mission given in a previous brief is still relevant:¹

*The ongoing
relevance of the
mission statement*

"[The university's mission is] to provide higher education for the Québec population, to advance and disseminate knowledge, and to define a critical standpoint, three functions founded on teaching, research and creation activities, services to the community, and a small number of related activities such as the preservation of cultural heritage, the enrichment of cultural life, the development of the regional, national and international communities, and industrial restructuring."
[Translation]

*The university's
mission as a
criterion for the
selection of
partnership-based
projects*

According to faculty members who are involved in a partnership-based activity, the university's mission is used as a point of reference in selecting partnership projects, and also guides the procedures defined in the partnership agreement between a university and an outside partner. In general, faculty members select partnership projects on the basis of their own research interests.

*Cases in which
the university's
mission may be
compromised*

However, in the health sciences, for example, anomalies do occur in connection with the dissemination of the results of research contracts. They reflect the need for more stringent publication requirements to counteract possible lapses in scientific integrity, and the insufficiency of certain institutional management mechanisms.

Dissemination of results. In this area, an analysis by Cardinal² of approximately fifty contracts between universities and genetic engineering companies reveals that contract clauses restrict the dissemination of research results. In addition, many companies impose a publication delay of at least six months. Lastly, the commercial nature of the contracts is poorly adapted to the university research environment.

More stringent publication requirements for scientific papers. The world's leading medical journals have determined new publication criteria to counteract possible lapses in the integrity of research results where the research has been conducted in a partnership with an outside business.

Insufficient management mechanisms. In Québec, the Auditor General has detected deficiencies in the partnership management plans of various institutions, pointing to the insufficiency of the ethical guidelines for research using human subjects and the lack of policies to manage conflicts of interest and the protection of intellectual property in university hospitals, university-affiliated hospitals and university institutes.

**THE UNIVERSITY'S
MISSION MUST
REMAIN THE
CHIEF POINT OF
REFERENCE:**

On the basis of these observations, the Conseil considers that action is required to ensure that the university's mission remains the chief point of reference for the establishment of all partnerships projects. It makes three recommendations.

1. In light of the consensus reached at the 1998 UNESCO World Conference on Higher Education concerning university's mission statements,

Considering that the mission statement proposed by the Conseil establishes guidelines for the universities' contribution to social and technological innovation,

Hoping that that the universities will respond to demands from the community, and

Taking into consideration the fact that government policies address the question of partnerships and influence the conditions in which the various components of the university's mission are pursued,

the Conseil recommends that the Minister of Education and the Minister of Research, Science and Technology

- **state their support for the university's mission in any government policy, decision or position affecting partnerships between universities and the business community, university participation in research, research funding, and the training of students at all educational levels**

2. Considering that partnership-based projects can be implemented in all fields of study, and that they make a substantial contribution to innovation,

Considering that the range of partners with which universities collaborate (the industrial sector, the public education and health care networks, the cultural and artistic communities, community organizations, unions, cooperative movements, social groups of young people, women or ethnic groups, etc.), and

Considering that the Minister of Research, Science and Technology has been assigned responsibility for coordinating research, wherever conducted,

the Conseil recommends that the Minister of Education, the Minister of Research, Science and Technology and university administrators, in compliance with the applicable governmental or institutional policies,

- **ensure the balanced development of all forms of partnership within the universities on the basis of the needs of the respective partners and the specific possibilities in each field of study**

*Providing policy
support for the
university's mission*

*Ensuring the balanced
development of all
forms of partnership*

GUIDELINES FOR UNIVERSITY INVOLVEMENT IN PARTNERSHIPS

In the view of the Conseil, partnerships between the universities and businesses, government or parapublic agencies, community organizations or artistic or literary organizations should be based on

- **the universities' role in society, meaning that**
 - partnerships must reflect the mission of the universities to provide higher education for the population of Québec, to advance and disseminate knowledge, and to establish a critical standpoint
 - the university community must retain the intellectual, financial and ethical freedom necessary to allow it to take a public stand on various issues, in an ongoing manner
 - partnerships must reflect the need of humanity to advance on all fronts, economic, scientific, social, cultural, artistic and literary
 - the universities must play a role in R&D or consulting activities that complements the role played by private businesses, avoiding open competition or the duplication of services and ensuring that responsibilities are assigned to the relevant partner
- **university values, meaning that**
 - academic freedom and the relative independence of each institution must be respected
 - scientific rigour, ethics and probity must be maintained
 - ownership of the intellectual property produced by students, faculty members and the institution must be respected
 - universities must retain responsibility for disseminating research results
- **university activities and practices, namely**
 - activities involving teaching, research, creation and services to the community, related activities such as the preservation of cultural heritage, the enrichment of cultural life, the development of the regional, national and international communities, and technological innovation
 - the scientific priorities of the university, faculty, teaching or research department, and their programs and scholarly work
 - student program requirements (e.g. dissertation or thesis preparation, internships, work/study activities)
 - a research community offering possibilities for training students (consistency of research topics and methods with program objectives, possibility of interaction among students, and between students and established researchers,

professionals, the artistic or literary community or the international scientific community, access to research infrastructures, the possibility of transferring knowledge to industrial applications or to professional practice)

- the establishment of links between training and research or creation at each educational level
 - a fair division of university activities among the faculty members, in compliance with the essential aspects of the university's mission
-
- **the feasibility of each partnership-based project, namely**
 - a complementary approach to the pooling of resources with partners
 - compliance with the prerogatives and mission of each partner
 - circumscribed project boundaries, in other words the setting of limits on pooled expertise
 - the availability of the resources needed to complete the project (scientific or professional expertise, secretarial and technical staff, equipment and funding)
 - the scope and term of the project, with priority given to medium- and long-term projects

3. Calling on the universities to remain open to requests from the community in all fields of learning, for a variety of partnership-based activities,

Taking into consideration the range of possible requests, the scope of the university's mission and the resources available to respond to the requests,

Considering the importance of supporting faculty members and students involved in partnership-based activities, and

Specifying that the selection of partnership projects and the nature of the university's involvement in the projects must be consistent with the particularities of each institution and its policies,

the Conseil recommends that university administrators

- ensure that current and future policies of their university clearly define the nature of the involvement of faculty members and students in partnership-based activities and, where applicable, add the proposed guidelines to their policies
- act together to draw up and revise the policies of their university, especially those concerning research, intellectual and scientific probity, in order to harmonize policies in all universities

What are the effects of partnerships on training and research?

All studies underline the positive effects of partnerships on student training and research development, although within certain limits.

Effects on training:

- Positive effects are observed on training at all educational levels, but mainly at the post-graduate level, according to data from consultations conducted by the Conseil and the Fédération québécoise des professeures et professeurs d'université (FQPPU).³ The university teachers consulted considered that partnerships had a positive impact on graduate research, on training in highly-specialized skills, and on continuing education.
- According to the data obtained by the Conseil, students involved in partnership-based research projects state that they gain advantages in terms of learning, increased motivation to continue their studies and greater confidence

*Establishing
guidelines for the
development of
partnerships in each
university's policies*

*Positive effects on
university research
and training*

to join the workforce. A study by Behrens and Gray⁴ points out that partnership-based research produces beneficial effects on engineering students in terms of the independence they enjoy to complete research work, and the ability to publish their results.

- However, the data gathered by the Conseil shows that when students take part in partnership-based projects unrelated to their dissertation or thesis work, the duration of their studies is sometimes increased. In addition, in some cases, the students are confined to tasks that fail to take advantage of the skills acquired and developed at university.

Effects on research:

- Partnerships give access to new areas of research that would be impossible to investigate using traditional means, according to the studies consulted. In addition, partnerships bring with them the financial, material and human resources needed to pursue research projects.
- Partnerships open the way to a network of interuniversity and international collaboration.
- Partnerships raise the scientific profile of faculty members by giving them access to prestigious international platforms.
- The conclusions of the studies consulted are mixed, however, concerning the dissemination of university research results and the balance achieved between various types of research.

Based on this positive assessment of the effects of partnerships on training and research, the Conseil proposes that current practices be continued.

4. Taking into consideration the positive effects of partnerships on graduate student training, and the inherent limits of partnerships,

the Conseil recommends that university teachers

- establish or select partnership-based projects carefully to ensure concrete spin-offs for the research-oriented or professional training of graduate students
- use partnership-based research projects to build up a research community able to train as many students as possible, whether directly by including students in research teams, or indirectly by giving them access to research equipment, circulating knowledge during seminars or creating possibilities for students to discuss research work with project partners

THE EFFECTS OF PARTNERSHIPS ON TRAINING MUST BE OPTIMIZED:

*Reinforcing the effects
on graduate research
training and
professional training*

*Providing support
for practical
training at the
undergraduate level*

5. Recognizing the importance of training high-level professionals in skills that match the requirements of the labour market,

the Conseil recommends that the directors of programs and teaching and research departments

- intensify training and research activities that offer undergraduate students opportunities to interact with businesses, organizations and professional practitioners in various ways (such as internships and cooperative training)

and that the Minister of Education, the universities, via their foundations, and businesses

- increase the number of bursaries available to undergraduate students for internship programs

6. Reiterating the wish expressed by the Conseil that the university network help raise skill levels in the general population, and that this objective be included in the draft adult education policy as part of a continuing education approach, and

Recognizing that it can be difficult to respond to requests for training, for example from employees working for a community organization (the small number of employees makes it difficult to release them for training), or where the resources available to a university teaching or continuing education department are limited,

the Conseil recommends that university teachers, in collaboration with their outside partners

- find innovative ways to offer continuing education, and to adapt training and make it accessible to all groups who request training
- select continuing education projects that are consistent with the objectives of university training

7. To permit the development of international cooperation partnerships, through which Québec's universities could provide assistance to developing countries,

the Conseil recommends that directors of teaching and research departments, program directors, directors of the departments responsible for international activities, and university principals

*Introducing
innovation to make
continuing
education more
accessible*

*Developing
partnerships in
international
cooperation*

- support professors who are, or wish to be, involved in international partnerships for research or training
8. Based on the priorities set out in the *Québec Policy on Universities* with regard to the international recognition of Québec universities, students' awareness of the international dimension and the reception of foreign students, and

Supporting the participation of Québec students in international projects based on partnerships with G8 or other countries,

the Conseil recommends that the Minister of Education

*Using partnerships
to introduce students
to the international
dimension*

- include, among the funding criteria for foreign internships, any educational situation (such as an unpaid internship) likely to promote the mobility and world awareness of students
- support the training of doctoral-level students in international research networks

Do partnerships promote the development of targeted and applied research?

*The importance
of partnerships: the
discrepancy between
the strategic guidelines
of the funding
agencies and the
funding granted for
partnership-based
research*

As stated above, partnerships are currently one of the strategic orientations of existing funding agencies, and are one of the reasons why new funding agencies have been established since the early 1990s. It is interesting to look at how these orientations are reflected in the funding of various types of research. Godin et al⁵ have studied the funding of various forms of research: "targeted" as opposed to "free" research, and "collective" as opposed to "individual" research. "Targeted" and "collective" research share certain features with the partnership-based approach, and it seems appropriate to see how they are funded

Between 1983 and 1997, only a small portion of the research grants for Québec universities were allocated to these two types of research, even though research funding as a whole increased over this period, according to an analysis of the total research funding granted by the six federal and provincial funding agencies established before 1990. In other words, overall research funding from the pre-1990 agencies was mainly channelled towards "free" and "individual" research. It is not yet known whether, for the years following 1997, the creation of the new funding agencies has brought about a change in the general situation.

According to another study by Godin and Gingras,⁶ partnership-based research tends to be applied research. Also according to their study, the faculty members engaged in partnerships tend to be high-output researchers whose work is published in leading journals.

9. The Conseil supports the guidelines and measures set out in the *Québec Policy on Science and Innovation* concerning funding for university research, and it recommends that the policy be implemented as soon as possible.

To ensure the balanced development of the various types of research conducted in the universities,

the Conseil recommends that the Minister of Research, Science and Technology

- help maintain a high level of public funding for "free" research

and that the Comité permanent des présidents-directeurs généraux des fonds de recherche du Québec

- ensure that, for research programs in all fields of study and in the related funding measures, a balance is achieved between "free" research and partnership-based research, in the latter case with funding contingent on the participation of partners from outside the university community

10. In another area, taking into consideration the fact that partnership-based research requires the universities to commit resources, and

Considering the need to integrate partnerships appropriately with other university activities,

the Conseil recommends that the Minister of Research, Science and Technology

- apply the measure provided for in the *Québec Policy on Science and Innovation* concerning the allocation of an amount for indirect research costs equivalent to 40% of total research funding

**THE MEASURES
CONCERNING
UNIVERSITY RESEARCH
FUNDING PROVIDED
FOR IN THE QUÉBEC
POLICY ON SCIENCE
AND INNOVATION MUST
BE IMPLEMENTED AS
SOON AS POSSIBLE:**

*Maintaining
balanced funding for
all forms of research*

*Ensuring appropriate
funding for indirect
research costs*

and that vice-principals for research

- harmonize methods within their institutions for charging indirect research costs to research partners

11. Based on the fact that partnerships develop as a result of collaborative experiences, and cannot be decreed or brought into being simply by financial incentives under research funding programs,

the Conseil recommends that the Comité permanent des présidents-directeurs généraux des fonds de recherche du Québec

- ensure that the criteria for subsidized partnership-based research programs are consistent with the characteristics of true partnerships
- explore appropriate ways to develop true research partnerships in order to improve support for the contribution of faculty members to technological and social innovation

How are partnership-based projects managed within teaching and research departments, and within individual universities?

The increased emphasis on partnerships affects university activities, the division of duties among faculty members, and the role of faculty members. The universities still do not have a clear overview permitting them to monitor the development of partnership-based activities.

The consultations carried out by the Conseil and the study by the FQPPU highlight several key points:

- university teachers involved in partnership-based activities are generally responsible for designing, managing, coordinating and carrying out each project. These teachers also emphasize the time that must be devoted to maintaining contact with the partners
- university teachers consider that partnerships constitute an increase in their duties
- half of the teachers surveyed experienced inappropriate institutional support in carrying out their projects, although they consider that proper support is a prerequisite for successfully completing a partnership-based project

Funding research projects based on true partnerships

Inadequate management mechanisms for partnership-based activities within the universities

- the teachers surveyed considered that the inadequate institutional support could be traced to the fact that the experience and number of resource persons assigned to support partnerships were insufficient. They cited the example of the BLEU (*bureaux de liaison entreprises-université*) network
- a rift has opened up between faculty members involved in partnership-based activities, who stress their advantages, and those who are not involved and who raise concerns about possible conflicts with the university's mission
- last, the management of questions relating to intellectual property, conflicts of interests and scientific probity, is a key issue connected with partnerships. In recent years, the universities that had not yet done so have adopted policies in this area, and an operation to harmonize institutional policies on intellectual assets is currently under way, in compliance with the guidelines set out in the *Québec Policy on Science and Innovation*

**REINFORCING
MANAGEMENT
MECHANISMS AND
INSTITUTIONAL
SUPPORT FOR
PARTNERSHIP-BASED
ACTIVITIES:**

The Conseil has noted several deficiencies in the way institutions manage partnership-based activities, regarding the support provided to faculty members, the coordination of partnerships in relation to other university activities, the rift dividing faculty members into two groups, and the lack of harmonization of the various university policies on partnerships. The Conseil has several recommendations for university administrators.

12. Given:

the rapid expansion of partnership-based activities in the universities, the Government's intention to harmonize policies on intellectual property, and the requests made to the universities in that connection, and

legal developments relating to intellectual property,

various actions must be undertaken to ensure the protection of intellectual property produced by university faculty members, and so

*Providing support for
faculty members
involved in partnerships
and ensuring proper
management of the
institutional aspects of
such partnerships*

the Conseil recommends that university research administrators

- provide support for the intellectual property rights of faculty members involved in partnership-based projects, at all stages in the project development process
- monitor the procedures for managing intellectual property

13. As an extension of the "service to the community" component of their mission, and also to ensure that society gains from the public funding of the universities, and

In compliance with the university's mission,

the Conseil recommends that university administrators

- stress the importance of disseminating the results of university research in all policies on the management of intellectual property and research
- allocate sufficient resources to the BLEU network to allow it to perform its duty to identify new scientific discoveries

14. Recognizing that there are deficiencies in the way partnership-based activities are currently managed by institutions,

the Conseil recommends that university principals

- ensure that services are provided by competent resource persons, able to give appropriate assistance to faculty members engaged in partnership-based activities, at each step in a project (including contract negotiation, financial management, protection of intellectual property, allocation of funding among universities, patent applications, marketing of research findings)
- ensure that faculty members involved in partnership-based activities are aware of and use the above services
- ensure that the policies of their university are consistent with those of other universities with respect to partnership-based approaches, and that all university policies are harmonized

15. Recognizing the principles of the university's accountability concerning services provided to the community, transparency in the conduct of university activities, and public reporting,

the Conseil recommends that university principals

- establish an inventory of all the partnership-based activities within their respective universities, circulate it within the university and, where appropriate, make it public

*Reporting on
partnership-based
activities*

<i>Hiring the professional, administrative and secretarial staff needed to support partnership-based activities</i>	16. To ensure more effective support for faculty members engaged in partnership-based activities, the Conseil recommends that university administrators • ensure that financial resources are redistributed in order to hire the professional, technical and secretarial staff needed to support partnership-based activities
<i>Considering involvement in partnership-based activities when determining career advancement for faculty members</i>	17. In order to support faculty members who are, or wish to be, involved in partnership-based activities, and to recognize partnership-based activities as part of the university's mission, the Conseil recommends that university administrators • where applicable, take into account the results of partnership-based activities when determining career advancement for faculty members What is the current state of knowledge concerning the effects of partnerships on universities?
<i>Enlightening studies, but unanswered questions</i>	The Conseil notes that several questions remain unanswered. The studies consulted deal mainly with collaboration between universities and businesses, especially in connection with the marketing of university research and the transfer of knowledge, and consist of theoretical reflections based on a small number of empirical verifications. However, little attention has been paid to other possible forms of partnerships, which means that the universities are not taking into account other needs of the community to which they could respond, and are restricting the scope of the university's mission by considering partnerships only from a financial viewpoint. To gain an overall view, it is necessary to consult a range of sources, each of which describes a particular facet of the partnership question. Through its survey of the university community, the Conseil has made an original contribution to the question of training partnerships, but this is only a first step towards a more systematic observation of this type of partnership. In addition, the exploratory investigation into the marketing of research from Québec universities, carried out by the FQPPU, needs to be completed. Contractual research, consulting work, the creation of derivative businesses and the granting of licences have an effect on the work organization of faculty members and on research funding. It will also be important to monitor these aspects. The studies highlighted the limits of existing knowledge concerning liaison and transfer mechanisms. It is assumed that

**CONTINUING
THE DISCUSSION
CONCERNING
PARTNERSHIP-
BASED ACTIVITIES:**

*Continuing
discussion and
research within the
universities and with
outside partners*

partnerships facilitate this process, but is this the case? Lastly, if only because the specific mission and culture of both universities and their outside partners is not well known, a dialogue concerning their respective roles would doubtless be beneficial.

This brief provides an overview of current approaches to partnerships and summarizes the existing state of knowledge in this area, but must be completed by research into the effects of partnerships on university development. It must also lead to a productive dialogue between universities and their outside partners.

18. Taking into account the limited state of knowledge concerning the effects of partnerships on several aspects of university life,

In light of current international trends for the development of partnerships within the university community,

Considering that public policies encourage universities to make a resolute commitment to technological and social innovation, and

Taking into account the need to begin a dialogue with outside partners concerning the assessment of current practices and guidelines for future forms of partnership,

the Conseil recommends that the Minister of Education, in close collaboration with the Minister of Research, Science and Technology

- establish a program to examine research and training partnerships to allow all players in the field (universities, research funding agencies, industry, the artistic and literary community, social and community organizations, the health care and education networks, and so on) to debate the key issues connected with partnerships (including partners, expectations, the scope and limits of university contributions, the effectiveness of technological transfer and social innovation mechanisms)
- once this work has been completed, to draw up a plan of action for the development of university partnerships

the Conseil recommends that funding agencies

- continue to assess research funding programs for partnerships to measure their effects on aspects such as scientific publication, student training and the transfer of knowledge

the Conseil recommends that university researchers whose work focuses on the development and management of higher education

- continue their research into the effects of partnerships on all fields of study and on the development of the universities

CONCLUSION

The examination, in this brief, of the effects of partnerships on the components of the university's mission allows certain preconceived ideas to be refuted. It also allows for the establishment of a critical distance concerning statements suggesting that the universities are firmly committed to partnerships. The data and facts assembled demonstrate the positive effects of partnerships, and also circumscribe their limits. The Conseil has noted these effects and limits.

Positive effects

In practice, a reliance on partnerships provides various forms of support for the university's mission. First, it introduces **diversity into teaching and research activities**. According to the faculty members surveyed, their experiences allow them to enrich their teaching with concrete examples, and also extend the traditional boundaries of research and open up previously inaccessible research domains and data. Lastly, they enrich training activities, whether in terms of practical training, research training, international cooperation or continuing education. For example, students involved in partnership-based research projects appreciate the experience, feel more motivated to continue their studies, and are more confident about joining the workforce. Next, **partnerships highlight the importance of university research**. The faculty members involved in partnership-based activities consider that the demand for their services is a mark of recognition for their academic or scientific expertise. In addition, partnerships increase their scientific renown. **Last, partnerships lead to the development of special expertise** concerning the protection of intellectual property resulting from scholarly work, skills connected with the marketing of research results, and strategies for disseminating scientific knowledge.

Counter-productive effects

The multiplication of research-based activities has also generated some undesirable side-effects. In addition to the general concerns raised, there is the **risk of a rift between faculty members**, opposing teachers involved in partnership-based activities with colleagues who are not. There are also reports of an **increased workload** for teachers, which reflects the lack of support also reported by teachers especially with regard to secretarial, technical, professional and administrative support. The reports also mention the complexity of partnership agreements, which require the coordination of many different activities and players and the maintenance of a network of contacts outside the university. There is also a risk that the productivity of faculty members will decrease. Within each institution, **the poor coordination of partnership-based projects with other university activities** was clearly evident in the analysis of the Conseil. An increased reliance on partnerships creates the need to review the management of university priorities concerning all its activities. In addition, partnerships must be supported by appropriate institutional policies and a competent staff of resource persons. For now, most solutions seem to concern management by individual faculty members.

Undefined effects

Not all the consequences of experiments with partnerships have yet been determined. The Conseil recommends that a program be established to examine the following questions. "Free" and "targeted" research should complement each other. In the future, **will the new focus on partnership-based research in funding agency guidelines threaten this synergy?** The resources allocated to the development of fields of study and research vary widely from one subject field to another. **Will partnerships widen the gap between subject fields whose research results are marketable, and subject fields that concentrate more on social innovation?** The new links between the uni-versities and the community reinforce the interest of faculty members in marketing their own scientific discoveries. In short, **will collaboration between faculty members and the business community make it difficult for university faculties to retain their members?**

Despite the fact that partnerships reinforce the university's mission in many respects, the risk of negative effects remains present. As mentioned above, partnership-based projects bring together partners from various communities, each with its own objectives and procedures. In every project, compliance with the prerogatives of the university's mission must remain a priority.

Potential conflicts of interest must be carefully managed through reliance on the ethics and probity of the faculty members concerned, but university administrators must also be accountable for their management of public funds and respect for the university's mission.

Ongoing aspects

To sum up, it is clear that students, teachers, university administrators and civil servants must all continue to examine their actions and methods and create a consensus within their group, if the essence of the university's mission, namely the education of students, is to be preserved. The primary responsibility lies with the Minister of Education to provide support for the university's mission in all government policies, decision and positions designed to regulate partnerships between universities and the community and to define the role played by Québec's universities in technological and social innovation.

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by e-mail : panorama@cse.gouv.qc.ca
by mail : Conseil supérieur de l'éducation
1200, route de l'Église, porte 3.20
Sainte-Foy (Québec) G1V 4Z4

