

Dr. Richard Marceau,
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St. John's, NL
Canada

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Dear Dr. Marceau,

As the first instalment in our response to your "An Innovation Strategy for Memorial University of Newfoundland", we would like to report to you some of the results and implications of a survey we sent out to our members on this topic.

Response rate and spread

The survey included 18 questions about the proposed innovation strategy (PIS) and an opportunity for additional comments. The questions were broadly grouped into the following categories: the concept of innovation; innovation, the university and the economy; innovation and curriculum; and the university and industry.

We received replies from nearly 250 ASMs - about 30% of all those ASMs to whom the survey was sent. This response rate is typical for internal surveys and higher than the 10-15% response rate for external surveys. An analysis of the results indicated that the persons in our sample were similar to our overall membership in terms of their faculty/school, gender, and rank. Thus we believe that the views our respondents expressed fairly reflect the views of ASMs across the university regarding the PIS.

For the purposes of simplifying the discussion we have grouped the ASMs into the following categories: Faculty of Arts, Science, Education; Grenfell; Professional (Engineering, Business, Pharmacy); Health (Medicine, Nursing, HKR, Social Work); and other (Library, Music, ASM-CEs).

RESULTS:

A) Concept of Innovation

i) As we indicated to you in July, about half of our members were unaware of MUNs PIS document before being contacted by MUNFA to complete the survey. While there is no perfect time to ask for feedback on any new strategy or policy, we wonder if one reason for the low level of awareness is the PIS summer release date. In any event, more effort was required to make ASMs aware of the issue. We also wonder why the opportunity to participate in an open Q&A session missed some populations of ASMs – notably, those in the Faculty of Arts.

ii) Eighty percent (**80%**) of ASMs did not feel that the definition of innovation given in the PIS, which emphasized the creation of economic value, was similar to their understanding. Only 4.5% of ASMs felt that it was very similar to the one they held.

The question of how innovation should be defined in a university was also a major focus in the comments we received and many were very frank about their outright opposition to the definition provided in the PIS.

iii) In terms of how important our ASMs feel it is to develop an innovation strategy aimed at increasing the economic value of university research, only 10% thought it was very important. As might be expected the strongest support for this came from the Professional grouping (72% for), whereas for the remaining groups 59% did not consider this to be important.

Overall, we would conclude that the majority of ASMs do not consider the development of an innovation strategy for the university, particularly one focused on extracting commercial value from scholarly research, to be a pressing concern or of great interest. Where there is more interest, the demographics suggest it is concentrated in a particular sub-set of ASMs.

B) Innovation, the University and economy

i) Over half (55%) of ASMs thought that the university should attempt to take a leading role in advancing the provincial economy, with about 12% strongly agreeing on this issue. About 13% were strongly opposed. In other words, this question reflects a set of moderated attitudes on the issue of the university's overall contribution to the provincial economy. The Professional group was the most supportive of this idea, and so the answers to this question broadly reflect disciplinary perspectives on how important it is to develop an innovation strategy.

ii) In contrast, 88% of ASMs did **not** agree that innovation for commercial ends should be a core component of the University's mission and 83% did not think that a job candidate's potential to create commercial value or acquire patents should be a factor in the hiring process. These responses are consistent with the way ASM's think about their own research: 81% of ASMs indicated that do not think about their own research in terms of its potential to create economic value and 78% of the respondents have never attempted to develop commercial applications of their research. Eighty four percent (84%) of those who answered would not like to move their research in the direction of increasing its economic value.

C) Innovation and the curriculum

i) Sixty-six percent (66%) of the respondents did not support the idea of MUN offering training or courses related to innovation and/or the creation of a postgraduate program in innovation. Not surprisingly, the majority of ASMs opposed the idea of adding innovation to the curriculum in their unit.

ii) Seventy eight percent (78%) of faculty felt that both teaching and research should be required of all tenured faculty. The majority in ALL units supported the principle that all faculty members should be engaged in both teaching and research. In other words, there is very little support for the establishment of separate teaching and research streams for tenured faculty.

D) The university and industry

The PIS includes a proposal for “providing a mechanism for local businesses to access Memorial’s infrastructure and resources”. Sixty five percent (65%) of our respondents **disagreed** with this suggestion. As to whether industry or business should become more involved in the University this proposal was opposed by the majority of groups but supported by the Professional group, where about 57% were in favour. Overall, we would characterize the result as one of ambivalence.

E) An Office of Innovation and AVP

Overall, 80% of the respondents opposed the formation of a dedicated Office of Innovation headed by an AVP for Innovation. A clear majority of ASMs were against this proposal idea in ALL units. Moreover, an overwhelming majority (nearly 90%) of respondents **oppose** the allocation of university funding to administer innovation.

In summary:

We’ve concluded that most ASMs do not see the university as a business whose job it is to create, support or be focused on commercialization or innovation for the purpose of creating economic value. Even within the Professional group, the majority of ASMs agree with those in the overall academic community.

There is very little support for the creation of more administrative positions to support innovation. The need, if it exists, should be focused at the unit level, since it is clear that innovation for economic value is of importance only in specific disciplines.

We would add that we do not think faculty are anti-business or anti-industry. There is recognition that Memorial has a role to play in the provincial economy. But this role is separate from that of being a place where creating economic value should be a core university mission. Nor do most ASMs have a substantial interest in conducting research focused on commercial ends on an individual level. The separation between the core missions of business/industry and university should be maintained. To do otherwise compromises and diminishes the role of the university in being a place of independent thought, criticism and a broader approach to innovation fostered by the interrelated roles of advanced research and teaching.

In the larger context:

The proposed innovation strategy has several similar and largely criticized themes as the science, technology and innovation strategy launched by the federal government in 2014 (which largely echoed their 2007 strategy). In the government’s strategy there is a focus to support business in the commercialization of ideas and knowledge while undervaluing basic, discovery-driven research.

The focus on business innovation and the commercialization of research, with the emphasis on university-based researchers collaborating with industrial partners, can undermine the integrity of scientific research, restrict researchers' academic freedom and be detrimental to the public good. As CAUT published in a February 2015 response to the federal strategy,

“In a report published by CAUT in 2013 examining 12 major collaboration agreements involving universities, industry and governments in Canada, it was found that seven agreements provide no specific protection for academic freedom, and only one requires the disclosure of conflicts of interest. Only five of the agreements give academic researchers the unrestricted right to publish their research findings and just half provide that the university maintains control over academic matters affecting staff and students.

This approach reflects a dangerously short sighted and narrow view of science that ignores the history of scientific advances. The discovery of X-rays, nylon, Teflon, GPS technology, informatics, superconductivity and medical imaging are just some of the innovations that emerged as the unanticipated results of basic research. The evidence clearly suggests that a narrowing focus on commercialization can stifle the creativity and unexpected discovery fundamental to basic research. A narrow focus on applied commercial research can also distort the focus of scientific investigation in ways that run counter to the public interest. In the area of medical research, for instance, the obsession with commercial outcomes has encouraged an emphasis on minor modifications to existing drugs and devices, rather than fundamental explorations of the causes of illness and methods of prevention.

As John Polanyi, Canada's most prominent Nobel laureate has warned, when governments or industry try to direct scientific inquiry, rather than allowing the scientific community to do so through its rigorous peer-review system that protects the integrity of their work, our scientific horizons shrink and our future is diminished.”

Anecdotally, we have heard from some members that they have been discouraged from pursuing some areas of interest that could have been of great value to the public good because they were told the research did not have a foreseeable marketable or commercial value. Demonstrating such a set of priorities not only devalues useful research while discouraging faculty and potentially hindering public interest, it also infringes upon academic

freedom rights of MUNFA members assured to them by the collective agreement.

It must also be pointed out that there is an assumption that industry and university collaboration would increase business investment and promote commercial innovation, therefore advance the “innovative fabric and economic performances of developed economies.” However, it has been proven that this approach has failed. Looking to our federal counterparts for facts and figures, Statistics Canada reported that the last seven years since the government changed its science and technology policy towards significantly more collaboration with industry, business investment in research and development has drastically decreased from \$17 billion to \$14 billion. As well, since many industry partners have been availing of university faculty to do their research there has also been a decrease in the number of industry research jobs for new and existing Ph.D. graduates.

In review, as the results from our survey demonstrate, the majority of faculty at Memorial do not support many of the fundamental themes in the current draft Innovation Strategy for Memorial University of Newfoundland. The commercialization of research can undermine the integrity of public research. We’ve seen industrial partners, interested in preserving their commercial interests, attempt to suppress or delay the publication of research results and to steer research away from inquiry that promises public benefit but little commercial profit. The history of scientific progress has shown that the economic and social benefits of research can only be fully realized if universities recognize that good research does not emerge from political diktats or narrow industrial demands. Tying such crucial parts of our university to industry-based needs and commercialization raises serious ethical concerns of the value of our education and research here at MUN. To ensure the integrity of Memorial University as an institution of knowledge we must enable our researchers, teachers and scientists to embark on their research and teaching unfettered and unrestricted.

Sincerely yours,

Dr. George A. Jenner, P. Geo.
President,
Memorial University of Newfoundland Faculty Association.