



Commentaires des répondants du sondage

15. Qui est titulaire des droits de la propriété intellectuelle pour les inventions créées à votre établissement (sauf dans le cadre de contrats de recherche)?

Titulaire : établissement

Titulaire : chercheur

Titulaires conjoints : établissement et chercheur

Aucune politique concernant les droits de PI

Ne sait pas

Autre (veuillez préciser)

Précisions pour ceux qui ont répondu « Autre »

N ^o	Commentaires (indiqués dans la langue du répondant)
	UNIVERSITY
	Professor
16	Researcher owns but must offer the university the right of first refusal to participate in the commercialization.
64	Other: conditions vary and set on a per project basis
111	Other: Researcher owns but usually an assignment is made to the university in return for institutional assistance developing the IP
	Industry-Liaison Office/ Technology Transfer Office
14	Other: Predominantly researcher unless university has made significant contributions to the project in which case it is joint.
18	Other- we invest in IP but do not create
26	Other: Institution owns potentially patentable IP created by faculty staff and students and copyrightable works created by faculty are owned by faculty while copyrightable works created by staff and students are owned by the institution. Please note this answer is for questions 6 and 7.
35	Other: IP carries the inventors name(s) and patents are assigned to the company
40	Researcher/Chercheur but must offer the University/Université the right of first refusal to participate in the commercialization.
48	Institution/L'établissement potentially patentable IP created by faculty staff and students and copyrightable works created by faculty are owned by faculty while copyrightable works created by staff and students are owned by the Institution/L'établissement. Please note this answer is for questions 6 and 7.
14-F	Autre: L'établissement a un droit d'option sur l'invention pendant 120 jours. Si l'établissement exerce son droit d'option, l'établissement est titulaire des droits de l'invention. Sinon, les inventeurs sont titulaires sous réserve d'un droit d'utilisation
23-F	Autre: L'établissement a un droit d'option sur l'invention pendant 120 jours. Si l'établissement exerce son droit d'option, l'établissement est titulaire des droits de l'invention. Sinon, les inventeurs sont titulaires sous réserve d'un droit d'utilisation de l'établissement pour la recherche et l'enseignement. La politique est la même pour les logiciels.
	Vice-President, Research/ Office
76	Other: Ownership depends on who has funded the work. Where the work has been funded by grants to the individual researcher (e.g. this would apply to NSERC grants) ownership goes to the researcher. Where the work has been



	funded by industry, ownership goes to industry.
38	Predominantly Researcher/Chercheur unless University/Université has made significant contributions to the project in which case it is joint.

16. Qui est titulaire du droit d'auteur créé à votre établissement (sauf dans le cadre de contrats de recherche) pour :

- a) les logiciels ou les bases de données?
Titulaire : établissement
Titulaire : chercheur
Titulaires conjoints : établissement et chercheur
Aucune politique concernant les droits de PI
Ne sait pas
Autre (veuillez préciser)
- b) le matériel pédagogique?
Titulaire : établissement
Titulaire : chercheur
Titulaires conjoints : établissement et chercheur
Aucune politique concernant les droits de PI
Ne sait pas
Autre (veuillez préciser)
- c) les autres matériels?
Titulaire : établissement
Titulaire : chercheur
Titulaires conjoints : établissement et chercheur
Aucune politique concernant les droits de PI
Ne sait pas
Autre (veuillez préciser)

17. En vertu de la politique actuelle, l'université et/ou le chercheur universitaire doit demeurer propriétaire des droits de PI. À votre avis, cette politique a-t-elle été ou pourrait-elle être un obstacle à l'établissement d'une collaboration avec :

- a) d'autres chercheurs universitaires canadiens?
Oui, un obstacle très significatif
Oui, un obstacle significatif
Ni significatif, ni non significatif
Non, un obstacle non significatif
Non, un obstacle tout à fait non significatif
Sans objet
- b) des chercheurs du secteur public (p. ex., le CNRC)?
Oui, un obstacle très significatif
Oui, un obstacle significatif
Ni significatif, ni non significatif
Non, un obstacle non significatif
Non, un obstacle tout à fait non significatif
Sans objet



- c) des chercheurs étrangers?
 - Oui, un obstacle très significatif
 - Oui, un obstacle significatif
 - Ni significatif, ni non significatif
 - Non, un obstacle non significatif
 - Non, un obstacle tout à fait non significatif
 - Sans objet

- d) l'industrie?
 - Oui, un obstacle très significatif
 - Oui, un obstacle significatif
 - Ni significatif, ni non significatif
 - Non, un obstacle non significatif
 - Non, un obstacle tout à fait non significatif
 - Sans objet

Commentaires des répondants

N°	Commentaires du répondant à la question 17 (indiqués dans la langue du répondant)
	UNIVERSITY
	Professor
16	It definitely discourages collaboration. Sometimes the need to have these agreements signed upfront hampers significantly collaboration. Large companies will not spend the time for the lengthy negotiations. Small companies' main asset is usually their IP. They do not want to see that at any risk of litigation etc. In collaborative engineering research separating contributions is not always easy. Small companies are afraid of "big universities and their lawyers".
21	The policy is reasonable and still allows the institution to give an exclusive, non-exclusive or time-limited right (e.g. license) to selected organizations.
23	This has been a barrier mainly with Industry. They find the negotiations as a burden to them, and anyways they want everything as soon as they invest ONE dollar. It has been difficult so far.
27	Foreign researchers are governed by their own institutions. I have a collaboration with a Russian researcher, and in Russia all IP belongs to the people. The resulting legal costs to sort this out are prohibitive. Industry: With my IRC, the supporting company feels they have paid enough and do not wish to have additional costs with licensing and other legal costs. Insult was added to injury when the University tried to add overhead charges to my IRC.
33	Industry always desires ownership.
34	The policy of requiring contract agreement with a partner before the research can be initiated may be a barrier in that the legal departments of some partners may require a significant time period (e.g. one or two years) to negotiate an agreement. I believe that the initial research should be permitted before the agreement, as was once the case.
43	Different IP environment may not be compatible.
59	As long as the university in question has clearly defined its own IP policies then there is no barrier to collaboration with any of the above parties.
60	Will depend on the industry or public sector contact. Industry likes to operate by



	acquisition.
81	Ownership could be an issue, but I think the bigger issue is how the IP is commercialized and how the benefits of commercialization are distributed. This could be a somewhat greater issue for foreign researchers unfamiliar with the Canadian system or for industry that may wish to have greater control over exploitation of the IP.
93	Industry partners and non-university collaborators are comfortable with the NSERC intellectual property policy.
99	Since the policy is applied to every Canadian researcher, I don't think that the barrier is significant. However, it may be a problem for our academic researchers to work together with public sector researchers as a potential conflict of IP may arise. As for industry, the situation is really case by case.
101	I have been involved extensively in collaborations of all types listed above and have never found the NSERC IP policy to be an impediment in any way
103	Have collaborated with all types listed. The current IP policy is manageable.
111	Generally the terms from one university to the next are not that different when dealing with industry. In terms of industry, this is very much a function of the type of company and sector. However, when significant gov funding is involved, they cannot expect to own the IP
116	Licensing satisfies most needs without transferring ownership.
124	This is common throughout the world. Rights can be assigned if desired to accommodate needs
137	Other Canadian researchers are usually bound by their IP policies, but a survey of these policies reveals that the conditions in NSERC's IP policy are met. Public sector and foreign researchers will usually honor the policies mutually, and whenever a significant IP interest arises, the interested party will offer an alternative means of pursuing such IP research. Industry has a very defensive perception of IP ownership and usually this does not align with NSERC's policy. However, in most cases, this is the result of a misunderstanding of the laws around IP and can be clarified. SMEs are the ones put in the most difficult position due to their limited resources and difficulty in competing with bigger corporations. The advantage of IP ownership in SMEs is pursued very aggressively and NSERC's policies may have an impact on potential contracts involving, for example, IPS grants.
141	Industry that put money and people into the research expect to have the right to the IP.
17-F	It is not important who holds the IP, only who can use it and the level of exclusion.
01-F	Le privé essaie toujours de s'approprier la PI même s'il ne mets que peu d'argent dans le projet. C'est toujours un enjeu stratégique important.
04-F	Si l'industriel comprend qu'il y a une plus valeur pour lui (accès plus avantageux à la PI produite que pour tous les autres partenaires potentiels) les obstacles ne sont pas hauts.
07-F	Dans les domaines où la protection de la PI par des brevets ne s'applique pas (mathématique, l'informatique,...) la seule protection contre la copie est le secret. Le report des publications durant six mois n'est pas suffisant dans ces domaines. Les entreprises préfèrent faire à l'interne plutôt que de les confier à l'université les recherches qui peuvent déboucher rapidement sur des produits commerciaux.



09-F	Le CNRC est particulièrement « agressif » dans sa politique de PI. C'est dommage car ainsi on évite de collaborer. On peut comprendre ce comportement dans le cas des entreprises mais c'est plus difficile à accepter d'un autre organisme public.
13-F	A mon avis, certaines entreprises ne seront pas prêtes à participer à une collaboration avec les chercheurs du secteur public si cela les empêche d'être propriétaire de la PI. Cela étant dit, il me semble que ce type d'entreprise n'est peut-être pas le type de partenaire que voudrait avoir un chercheur universitaire car cela se traduirait sans doute par une certaine incompréhension des obligations qui nous incombent en matière de contribution à l'avancement des connaissances et à la formation d'une relève scientifique.
15-F	Mon expérience personnelle indique qu'il n'y a pas vraiment d'obstacle aux collaborations. Il s'agit de bien choisir les sujets de recherche.
16-F	Le maintien de la propriété de la PI à l'Université ne représente pas un obstacle majeur à des collaborations avec d'autres universités ou avec le secteur public, dans la mesure ou dans ces types de collaborations, la commercialisation éventuelle des résultats n'est pas forcément l'objectif primaire de la collaboration. Par contre, dans le cas des collaborations avec l'industrie, la propriété de la PI est un enjeu important. Dans plusieurs secteurs, par exemple celui des télécommunications, l'octroi de licences, même exclusives, a beaucoup moins de valeur que le transfert de la PI au partenaire industriel. Il est beaucoup plus facile pour le partenaire industriel de valoriser commercialement une technologie qu'elle détient entièrement. Comme l'Université ne vend pas de produits, ou n'a pas d'intérêt à réaliser des ententes comme des licences croisées, elle a peu de leviers pour rentabiliser une technologie brevetée, autres que de tenter de licencier la technologie et d'en obtenir des redevances.
30-F	Je ne pense pas qu'il y ait problème compte-tenu des possibilités de la volonté grande des Universités à rendre disponible les inventions.
	Industry-Liaison Office/ Technology Transfer Office
12	The NSERC policy actually helps give Universities a stronger bargaining position when negotiating contracts with third parties.
14	I think the best policy is for the institution to own the intellectual property. This solves many issues and the rare instances where this is an issue is surmountable.
18	With academic institutions, the rules of IP ownership are based on inventive contribution and are well known and accepted. Generally the same with the public sector or foreign (academic) researchers. With the Industry the question of ownership is more regularly challenged although we generally succeed in keeping the IP at the University or sharing the property with the industry based on inventive contribution.
19	Particularly an issue with foreign industry sponsors who do not understand NSERC's policy
26	It is a barrier occasionally but not a significant barrier - with a Thesis we still enact a 90 hold period prior to disclosure to allow patenting to proceed. Occasionally the sale of the technology may be warranted but even then publication rights must be maintained.
35	Some companies' desire assignment but this new policy will create a level playing field and give universities a strong leg on which to negotiate.
36	In my experience negotiating collaborative research agreements with federal



	government departments and Canadian industry sponsors (at SFU for 6 years and UNB for 8 years), this policy has not been barrier to initiating most collaborations. It has firmed up the university's position in the negotiation. It may present a significant issue in a small minority of collaborations, i.e. research contracts with a few Canadian companies, and commercialization ventures where a Canadian investor group is pressuring for ownership of IP.
40	NRC Institutes have a crown ownership requirement. Industry always needs use rights, and often want assignment or ownership as well. In most cases a negotiated agreement can be reached that meets industry's needs.
46	Policy is not an issue with academics who only wish to publish and not focus on commercialization. Industry wants the right to use the results in their business if it contributes materially to the research. In some fields a non-exclusive right will mean that no other industry partner will invest in the outcome (e.g. drug fields). The policy also ignores tax laws.
48	My experience of 17 years in university tech transfer indicates that industry only need and insists on ownership of IP resulting from sponsored contract research at universities if the resulting IP represents an improvement to an existing portfolio of proprietary technology that the company has already developed, invested in and protected. In such cases I believe we should be prepared to assign ownership but such situations/contracts are rarely supported by NSERC funding and in fact I think the NSERC partnership programs should not be focused on supporting the further development of a company's proprietary technology. As for research involving researchers from another university or gov't lab there are rarely IP ownership issues. There could be such issues if a university grad student is doing research in a gov't lab but generally we work closely with gov't labs with each institution owning or co-owning the resulting IP.
62	Academic/Government researchers: As they are performing research rather than commercializing the technology the policy should not have a detrimental effect. Foreign researchers: Depends on what work is being done - maybe they will need rights in the future depending on research outcomes. Industry: Could be a significant barrier if background IP cannot be transferred to the company who is funding a research contract.
66	We have run into situations where companies (particularly SMEs in highly sensitive sectors like Pharma) have been unwilling to co-sponsor NSERC research knowing that assignment or full ownership of the intellectual property was not an option.
68	In some cases, it makes sense for the industry partner to control the IP because it is in a better position to 'go to market' with it. The University/researcher would still be compensated for its IP contribution in this instance. Admittedly, some researchers might not understand the difference and there is a risk of signing away their rights without fair compensation.
74	Some industry partners insist on IP ownership, and some provide their proprietary information and IP, and wish to claim rights to all derivatives and improvements. There could perhaps be more flexibility here to allow for these circumstances.
85	I do not have the impression that NSERC's IP requirements are driving partners away from the program.
88	NSAC owns IP by policy but we are flexible in sharing IP that is developed in the course of project (i.e., joint ownership) and in offering IP commercialization to a



	partner through licensing arrangements, etc.
98	Universities are open to granting even more rights to the industry partner under such funding arrangements, but as long as there is a financial return in exchange for these rights. At minimum, the financial compensation should be at least equal (reimburse) to the public funding of the research, and if wider rights are granted (more fields, exclusivity) the financial compensation should make up for the opportunity cost of those lost royalties. Companies typically start the negotiations with a minimum expectation of a royalty-free license, and not always field specific, and often the industrial partners expect these rights to be inclusive of royalty-free rights to background IP as well. Of greater concern is that these expectations are now becoming the norm for early-stage, basic research, such as NSERC Strategic grants. Even if the university decides that the business arrangement is such that a non-exclusive royalty-free, field-limited license is warranted, the industry partner should not be able to place any restrictions on the ability of the university to freely license the technology non-exclusively in the same field (and yes, including competitors) or exclusively in other fields.
117	Experience has shown that such IP ownership policy is generally understood by other Canadian researchers. However, US institutions expect university ownership rather than individual ownership. Industry would like to take ownership but will usually eventually accept the described policy.
123	Brock University (on behalf of its researchers) will always try to maintain IP ownership. The outside third party can have control of the IP but we want to own the IP. As such, the NSERC policy does not create a barrier for us for collaborations.
158	I think that in collaborations with other Canadian academic researchers or with the public sector that it is generally accepted that IP remains with the university or researchers. However, once private industry becomes involved, negotiation of ownership often becomes an issue.
170	Collaboration between researchers of institutions having different policies on ownership can become difficult. Rather than defaulting to the institution's policy on ownership, NSERC can ensure uniformity by insisting on institution owning IP.
175	The trend toward technology bundling across public institutions seems to have recently reached a tipping point. Anecdotally, it has come up three times in a span of 5 days. NSERC's policy is tremendously helpful in making the case for Institution ownership.
181	The NSERC policy is not a barrier to any collaborations if explained well pre-research.
02-F	Aucun obstacle.
14-F	La plupart des chercheurs canadiens faisant des demandes auprès du CRSNG connaissent bien les programmes. Les ententes des chercheurs affiliés aux laboratoires fédéraux peuvent parfois être plus contraignantes. Dans le cas des industries, celles-ci sont de plus en plus exigeantes de sorte que les conditions générales de licences (incluant les redevances) doivent maintenant être établies tôt dans le processus. Certains possédants un art antérieur propre au domaine contestent les conditions de propriété des résultats.
23-F	Ce n'est pas un obstacle mais plutôt une aide pour faire respecter les droits de l'université, des chercheurs et des étudiants. La négociation d'une entente force



	aussi à démarrer la collaboration sur une bonne base, car chaque partie est obligée d'explicitier ses intérêts dans la collaboration.
31-F	Notre expérience avec un institut du CNRC est que celui-ci insiste sur la propriété des droits mais négocie pour un partage équitable des bénéfices. L'industrie souhaite acquérir par cession les droits de façon à constituer un portfolio de valeur non-dilué et clair.
34-F	Ces questions ce gère au cas par cas, il est bien que les obligations soient que la PI demeure à dans les institutions, cela peut parfois poser problème à la participation des partenaires industriels, mais il y a moyen de procéder en attribuant des licences. Ultimement, l'entreprise ne s'engera pas dans le projet ou une source alternative de financement sera identifiée.
	Vice-President, Research/ Office
8	In the case of the federal labs, this has been a huge barrier for researchers to continue collaborations with federal researchers. In some cases, we had to refuse contracts/grants agreements because the federal ministries wanted all IP, data and copyright which is against our collective agreement (in addition to not wanted to fund the full cost of research). With industry the main challenge has occurred with SMEs or companies with old system that does not understand the difference between copyright, IP and knowledge transfer.
11	IP is a very complicated and loaded issue. Reasonable flexibility is the key either in dealing with researchers from countries where they do not own IP or when working out the arrangements with an industrial partnership.
20	There are opportunities being missed that would allow Canada to benefit from the commercialization of some research outcomes because of the ownership caveat. Although the option for exclusive access is available within a field of use, it essential is used in cases where ownership would have been transferred and as such, doesn't offer any more or any less protection for the researcher.
30	There may be a barrier to working with industry if they are paying all the expenses and there is an expectation that they will only receive the IP as a result of any contract. There may be issues of the need for non-publishing the results, at least for a certain period of time due to competitive workplace issues for industry partners. I believe that all research results should be available to the public but this may be an inhibitor for industry partners.
38	Problems will arise where there is joint funding of a program - who can know exactly which funds support which part of the research?
61	When the IP is co-developed, the key is to having an agreement that makes it clear how IP ownership will be handled. We have been able to work around this easily within Canada...often through joint-ownership agreements that keep it within the "NSERC" family of researchers/institutions. Depending on expectations internationally or with industry, this can be more difficult to negotiate and may lead to reduced opportunities to collaborate...so it can be a barrier....but I say "insignificant" because the effect is largely unknown.
76	NSERC's current IP policy applies to NSERC-funded work - and under BCIT's IP policy, IP resulting from work funded by NSERC is owned by the researcher. So far, we have not had any experience that leads me to believe that NSERC's current policy is detrimental to collaboration. But then, our experience is very limited.
83	Although the IP policy presents a need for negotiation, that need exists no matter what the IP policy is. As all US universities, and most foreign universities



	operate under institution owned IP policies, any significant foreign partner or industry is quite used to the situation.
86	Even in cases where the researchers owns IP in the first instance, control of the IP is invariably transferred to the institution which has the responsibility for negotiating agreements with researchers/companies external to the institutions. This is as it should be, as each institution is in the best position to ascertain how public investments in research (including the IP that comes from this) should be managed.
87	I suppose under some circumstances an industry partner might prefer assignment of IP ownership, but in my experience in most cases they are satisfied with Licensing Agreement, exclusive if necessary.
92	Vesting IP with researcher can be a problem. We need to have IP assigned to the university before we can invest resources in protecting / commercialization. We have troubles bundling IP, especially when collaborating with NRC and AAFC. Finally, the whole area of student IP needs to be clarified.
119	I feel that NSERC's current IP policy could be a barrier to collaboration with all the aforementioned partners, however perhaps not a significant one (would be case-by-case basis).
130	Neutral in all, because the IP has to be owned by someone. Once it is, then any new collaborations will anyway require negotiations, regardless of who the owner is. These unavoidable negotiations are the sources of difficulties, not who owns the IP.
134	Normally agreements can be worked out around this issue. Some companies sometimes insist that they should own the IP. Such a situation is very much to their favor. If they want this position they should simply fund the research completely. Why should the Canadian government fund and support their position? I do not believe this is appropriate when NSERC is providing a major portion of the funding. The right to publish is very important.
143	Canadian universities and research centers/institutions would follow the same NSERC policy so there won't be any collaboration problem. But there could be some (?) if foreign researchers or industry want sole ownership of the IP.
151	Most of the issues arise due to the misunderstanding that ownership is not required by the partners but what is required is the access rights (either exclusive or limited by use or region or other). Industry at times feels that providing funding gives them ownerships rights but forgets that having no intellectual contribution in the creation of the invention dose not give you ownership but can give to right to use, modify and sale (access rights). This requires education at the national scale.
182	Since the researcher owns the IP, negotiations with all parties are relatively straightforward.
18-F	In principle, if IP is solely developed by the university, we agree that the IP should stay with the university and / or university researcher and no assignments to third parties. However, it would be preferable that the third party has rights to that technology commensurate to the level of overhead paid by the third party partner and as negotiated with the university
12-F	A ma connaissance nous parvenons toujours à nous entendre avec des partenaires industriels, gouvernementaux ou universitaires sur la manière de gérer la PI. Je n'ai pas souvenir d'un partenaire qui n'est pas parvenu à une entente avec l'université.



25-F	Dans les relations entre chercheurs, la question de propriété de la PI n'est généralement pas un obstacle. Cependant, en ce qui a trait aux liens industrie-chercheurs, il arrive que l'impossibilité de céder les droits de PI à l'industrie empêche cette dernière d'avoir accès à certaine forme de financement et peut à l'OCCASION remettre en question certains partenariats naissants. Cela dit, il ne faut pas gérer pour les exceptions.
26-F	Nos expériences montrent qu'en ce qui concerne la recherche publique - universitaire ou autre- il est facile de convenir des clauses relatives à la PI. Je n'ai cependant pas eu à traiter avec des institutions étrangères. Les discussions les plus délicates ont lieu avec l'industrie, mais je ne crois pas qu'il faille changer la politique du CRSNG, bien au contraire.
	PRIVATE
3	Overall, we have many collaborations with universities and do not have any problems with university or researcher ownership if the IP is developed by them. NSERC recognizes 'Joint ownership of an invention'. Industries have more and more internal R&D capabilities and there is much to gain for Canadian economy that both university and industrial R&D teams work together to develop tomorrow's technology. Not all universities are too keen with Joint ownership. This can complicate negotiations with universities. Also, not all companies are comfortable with universities owning the IP and only getting licensing rights. In such cases, it is harder to organize multi-partner collaborations between industries, foreign researchers and Canadian universities.
5	Although IPR ownership provides commercial advantages, ownership is not essential as long as the industry partner continues to receive at a minimum, a non-exclusive license from the university to use, sell and make the protected technology. [Regardless of whether industry partner owns IPR, industry partner gets license or results are published (and therefore dedicated to public), industry partner is in same position with respect to its ability to commercialize the particular technology in question. That being said, given that there is no right to practice an invention (i.e. if another third party owns underlying IPR), in the absence of full ownership, industry partner loses ability to leverage IPR to make use of underlying IPR. Therefore, especially in the high tech environment, where most technologies are not covered by a single patent, the inability to enforce patents can in fact impact commercialization].
6	The industry has expressed concerns in relieving ownership of information that have commercial implications or beneficial to competitors.
31	Any industry of course would prefer that ownership of IP was assigned to it. In some cases, industry will not be interested in product development unless it owns the IP, because licensing of the IP may be considered too risky. So then the IP sits on the shelf. The main problem that our company has encountered is joint ownership of IP, wherein company and university researchers are co-inventors on a patent. The university acts as if it is the sole owner of the IP and can't seem to realize that any licensing agreement must include reciprocal clauses, and make provision for reduced royalties and fees.
47	IP ownership residing exclusively with university or university research excludes some potential business models which might better exploit the IP.
49	1. Other Canadian academic researchers - it becomes a very significant barrier in a case when there are several universities involved in a project and one of the university with IP ownership would not agree to the IP licensing terms that other



	universities are willing to accept. This leads to project fragmentation and professor seeking adjunct position at other schools. 2. I have no experience with Public sector researchers.3. Foreign Researchers - the question is ambiguous. Are we talking about researchers in other countries performing work under NSERC grant or we are taking about collaborative research project where two or more national agencies funding researchers within their own jurisdiction?
56	IF industry approaches academia with a problem to solve, and if industry has no rights to exploit the solution without considerable negotiations in an uncertain market, then industry has a disincentive to work with universities. IF the intent of NSERC is just sponsorship of academic research (basic research) with some faint hope that somehow an industry is going to come along, find the potential and take the next 5-10 years to get it ready for market, then the NSERC model works. IF the intent of NSERC is to encourage innovation (getting ideas to market) and to create an environment for innovation, then it makes sense for industry to come with a full blown description of the problem to academics and expect that a more focused research effort will set the stage for early market entry (with few hurdles to be negotiated to get the products to market). With global competition, small Canadian industry does not have time or resources to spend years making an academic effort into a commercial success. NSERC should consider supporting and allowing options that are more compatible with innovation and not just basic research that takes years and significant monies additionally to make the product market-ready. Royalties are only one way to encourage public money contributed to research, to be returned by industry back to academic research (and royalties are a poor avenue at that). New inventions need rapid evolution in competitive markets, and it makes more sense to have monies flow back to academics to evolve new technologies reaching the market than to toss monies back into a university pot to go wherever. Innovation of researchers needs to be rewarded with funds to continue innovation. Industry, especially the less innovative, needs to be encouraged to innovate continuously and have barriers to approaching university innovators reduced. Creating of university-industry collaboration even with small industries and where industry is encouraged to continually innovate/evolve their products through the collaboration ensure monies flowing to universities with a higher probability of also encouraging a climate of innovation amongst the industrial partner. It is time to innovate in funding university-industry support by NSERC. It is time to think of how to get ideas to market and promote a climate of innovation.
58	As a result of the above policy we have not initiated more NSERC partnership programs. We try to limit these interaction to projects focused on fundamental understanding rather than new materials inventing. The catch is that increased understanding almost always results in ideas that generate new materials of interest. Thus far we have been able to negotiate IP agreements that satisfy NSERC in some of our programs, in other cases we have had to go off line of NSERC programs. I think this is unfortunate since it likely results in less funding for the researchers with whom we work.
72	This policy has been implemented by all the universities we have been collaborating with. We don't have issues with the university/researcher owning the IP as long as the ownership satisfies the principles of inventorship.
78	As long as NSERC continues to remain comfortable with the notion that



	collaborations can include a royalty-free license for the industrial sponsor there are only minor barriers pertaining to specifying the terms of the license. And, of course, if the industrial partner contributes meaningfully to the IP then the ownership can be joint. Otherwise, I don't see industry supporting collaborations beyond grants in limited circumstances.
79	Working with the universities may create a conflict with IP, for the most part better not to have the problem than to solve the problem
96	Our Industry will not enter an agreement unless they own the IP rights
106	In our agreements with the University we have identified that the projects involve pre-competitive research and that we maintain the right to commercialize it, while the university has the right to license it to others, as they maintain ownership.
110	Since with that policy, the university puts a lot of pressure on the researchers to make sure that the university maintains the rights since it could generate important revenue. However, this can also prevent the industrial collaboration, another source of revenue. However one is long term revenue for the university and the other one is short term revenue for the research lab. Without healthy labs they will be no long term revenue for the university.
122	Our Management has great reservations about IP being held by another party & relying on "good faith" at the end of join project in order to be able to benefit from it.
126	For a company (Industry) involved with a University researcher, the IP policy should be negotiable, depending on what portions of the IP are developed at university or company.
127	Since most research must be justified with an industrial application, there is a strong tendency for research to be less on development of fundamental and more on the application of fundamentals to new areas where there may be industry applications. This naturally brings industry or foreign researchers to work with Canadian universities on applications and hence, control of IP can be an issue. While larger companies may be able to afford direct contracts for research where they have more control over IP, this level of support is often more difficult for small to medium size companies.
132	Neutral response for academic researchers as it depends on situation and research as well as agreements between an industry and the other researchers to be involved. We would be apprehensive to involve other industry partners unless it was a specific topic for which we believed that no competitive adv would be lost.
139	Keeping IP with the University researcher is not a significant barrier as long as any other collaborator contributing in cash or in-kind gets a license to the IP.
149	We participate in many consortium based research projects where the end product needs to be available to all participants - in particular to an industrial partner who will commercialize the process/tool/system etc. Typically universities and university researchers are very poor at commercializing new discoveries and therefore these rarely, if ever make it to market for use by industry.
154	The origin of an invention is often debatable. If a university did not need help from industry, there would be no advantage to cooperation. If the industrial partner does enjoy an advantage of cooperation, it must not include loss of IP rights already in hand before the cooperation begins. Any intellectual property



	right such as a patent is at risk of an improvement patent being filed by another individual. If the original inventor greatly increases the risk of an improvement patent being owned by someone else simply because the inventor cooperated with a publicly funded program, he is not likely to cooperate. Or, if the original invention is not yet patented and which subsequent patent can not be owned at least in some manner by the industrial partner, then there is a strong disincentive to cooperate.
167	Joint technical research proposals take a month to define, whereas IP negotiations take months/years to complete to the extent that the original proposal is out-dated.
177	Anybody/any company making a significant contribution on a research project expect to own part of the IP generated. Even if the NSERC contributes a large part, the other partners do contribute too. So in simple terms, if a company pays money why could it not have a share of the IP?
5-F	L'industrie participant à un projet conjoint devrait aussi être propriétaire au moins en partie de la propriété intellectuelle. Sinon, l'université et/ou le chercheur peut éventuellement aller vendre à des compétiteurs de la technologie ou du savoir développer avec des contributions de la première. Si l'industrie était propriétaire, elle pourrait avoir un meilleur contrôle sur la vente éventuelle de cette technologie.
11-F	La propriété intellectuelle est le centre de l'intérêt qui peut justifier la participation d'une entreprise au financement d'un projet avec des chercheurs Canadien universitaires ou du secteur publique. Souvent le projet vient du développement d'un concept ou d'un besoin en technologies générés par l'industrie, Si l'entreprise se doit de laisser la PI au chercheur ou à l'université, on ne peut justifier l'investissement dans ce dernier étant donné le fait que la propriété sera diluée. Il est préférable de donner un contrat privé et conservé la propriété.
PUBLIC	
109	The Patent allows the use of patented inventions for the purpose of academic research. Overall, the easier it is for IP to be transferred to industry, the more likely it these inventions will be developed and used to enhance market competitiveness. The ease of access to the IP is critical. Currently, the ownership of IP by universities is a barrier - a huge one - but it does not need to be - if they would simplify the process for companies to license IP and reduce the cost.
142	With internationalization, we must joint our forces.
179	Small companies, possibly contemplating a future take-over by a larger company, are often concerned about ownership, especially if they feel that the IP is "all they have". However mid-sized and larger companies with established markets and distribution channels are usually less concerned about ownership and much more about extensive right to use (and sublicense) the IP.
21-F	Dans la mesure où l'industrie et/ou les partenaires obtiennent ou peuvent obtenir un droit de licence ou d'option de licence exclusifs, cela ne pose pas de problème.

19. À votre avis, la politique régissant les droits de PI a-t-elle été ou pourrait-elle être un obstacle à la commercialisation ou à la mise en œuvre des résultats de la recherche?

Oui, un obstacle très significatif



- Oui, un obstacle significatif
- Ni significatif, ni non significatif
- Non, un obstacle non significatif
- Non, un obstacle tout à fait non significatif
- Sans objet

N°	Commentaires du répondant à la question 19 (indiqués dans la langue du répondant)
	UNIVERSITY
	Professor
16	Most companies are concerned of the possibility of conflict around the issue. If the institutions own it is more complicated than when the faculty members own it. Most UILO are not in the position to judge the commercial outcome (that is a very tough business) and tend to overestimate the contribution by the university and underestimate the risk and effort involved in commercialization.
21	The policy is reasonable and still allows the institution to give an exclusive, non-exclusive or time-limited right (e.g. license) to selected organizations.
23	Industry has more means to implement and take innovations further. Universities have limited resources in that respect. We retain IP and then we do not do much with, because of lack of resources.
28	The IP must be left to the negotiations between researcher and sponsoring industry.
34	Since my university allocates ownership to the researcher, the NSERC policy has little or no effect on this point.
43	No Research= No commercialization (esp. industry if they see no advantages)
57	At the University we have a specific problem, perhaps unrelated to your objectives in this survey: the university now requires researchers to surrender their IP ownership to the university in exchange for the university's signing off on certain NSERC and CIHR grants, and on all MTAs. I and many of my colleagues feel this is coercive and restrictive.
59	I have a lot of experience in dealing with companies and transferring technology to industry. I have experienced no barrier whatsoever in terms of NSERC's policies. In fact it is simpler to deal with NSERC funded research in terms of IP licenses, etc. than the other company's where the latter play a part in the whole process. Three party negotiations are much tougher.
60	Again, as long as agreements are established at the outset, this is not necessarily a problem. However, if we believe that IP that is funded by taxpayers should have no barriers to dissemination, then the IP-ownership rule can be an obstacle.
64	In my experience, the main barrier to commercialization is not the policy, but the capacity of the university to foster commercialization.
81	If the institution is the owner, then the policy could be a very significant barrier. In my particular situation, the flexibility that is available should avoid barriers.
91	Many companies would rather own and maintain the IP themselves.
93	Without exception, it is the researcher that is most interested in commercialization of intellectual property. The existing model allows the researcher the opportunity to participate in these activities. The researcher-owned policy adopted by the University is successful because it encourages



	entrepreneurial researchers to continue to develop their intellectual property.
99	It depends on the interpretation. Usually, each university has an office or agency for managing the IP issues. I don't think that it is the responsibility of researchers to deal with all of those legal and complicated issues.
101	I have created numerous spin-off companies and licenses and have never found NSERC's IP policy to be a barrier in any way
103	Good licensing arrangements enable interaction with industry, and commercialization.
111	Again, will depend on the company and sector. A company cannot expect that with matching funding from gov there should be full ownership of IP. Right now there is quite a bit of flexibility in negotiations.
124	There can be some issues if multiple inventors from multiple institutions are involved. However pre-agreements can obviate the issues (and should be made when multiple institutions are involved together on joint projects.
137	Ownership and licensing of IP are separate. Commercialization based on licensing (even exclusive licensing, for no fee if applicable) is starting to be accepted by industry as the rate of innovation grows.
141	In the computer industry time is very important!!
148	It is extremely important to make industry partners aware of the NSERC policy before the start of the project. We had one potential partner walk away because they felt they should own the rights to the results from a project and they wanted exclusive marketing rights. In most cases, industry sees the value of student training and publication of data, sometimes with their researchers as authors.
17-F	An exclusive license provides virtually the same rights as an assignment.
01-F	Un brevet est une valeur d'actif dans une entreprise et celle-ci aimerait pouvoir l'acquérir. Quand le chercheur n'est plus intéressé par le domaine et après un certain temps, je crois que l'université devra ouvrir la porte à certaines ventes de ces brevets.
04-F	Tout dépend de la flexibilité des bureaux de liaison entreprise-université ou toute autre instance gérant la PI.
07-F	Dans la plupart des cas ce n'est pas un problème. Toutefois il faudrait permettre des exceptions. Il y a problème quand la recherche vise à améliorer ou compléter une technologie qui appartient déjà à l'entreprise. Dans ce cas si l'entreprise ne veut pas perdre le plein contrôle de sa technologie elle évite de confier la recherche aux chercheurs universitaires. Ceci empêche souvent les chercheurs universitaires de participer à la recherche qui est la plus pertinente pour les entreprises et qui a le plus de retombés économiques.
09-F	Il suffit d'être clair sur ses positions « non-négociables » a priori et les partenaires apprécient cette attitude.
13-F	Encore une fois, c'est du cas par cas. Il me semble certain que pour certaines entreprises, l'absence de propriété de la PI serait inacceptable alors que, pour d'autres, le fait de détenir une licence serait tout à fait acceptable.
15-F	Non significatif car tout est une question de négociation entre les partenaires universitaires et industriels. Dans le cas de la création d'une nouvelle entreprise, le fait que les droits appartiennent à l'université protège cette nouvelle entreprise d'une prise de contrôle abusive en cas d'échec de la commercialisation.
16-F	La politique actuelle sur la PI peut être un obstacle important pour la commercialisation, pour le raisons évoquées au point précédent. Pour ce qui est



	de la mise en œuvre des résultats de la recherche, je ne sais pas. Le problème me semble réellement se situer au niveau de la commercialisation.
	Industry-Liaison Office/ Technology Transfer Office
12	Yes. Allowing researcher ownership, instead of requiring institutional ownership such as is done in the United States, is a significant barrier to commercialization. It makes IP ownership very much less certain when trying to license inventions to receptors. I highly recommend NSERC move towards requiring institutional (i.e. university) ownership rather than investigator ownership.
14	I think the best policy is for the institution to own the intellectual property. This solves many issues and the rare instances where this is an issue, surmountable.
18	Research with an objective of commercialization often means working and developing in collaboration with the industry. There is a barrier but not a significant problem.
26	Most times Licensing with a 90 day clause for publication is adequate.
35	Industry is comfortable with exclusive licenses, they try to get assignments but they can live with licensing
36	It can be a very significant barrier where the Canadian investor group is pressuring for ownership of IP, a company has done this for one of our research contracts. U.S. investor groups have not taken this approach.
40	It can be a barrier when the researcher does not want to participate in or support the commercialization of a discovery. The university cannot override this position.
46	Regarding patent rights, in Canada all owners must agree to permit the patented subject matter to be used commercially. Thus one dissent means no commercial use. In the US any owner can use the patented subject matter - thus reducing the value of any one license when any owner can grant a non-exclusive - this is particularly true in inventor owned IP. Institutional ownership generally meant 1) that licenses are ``clean`` - the appearance of a new inventor does not threaten the license and 2) norms develop around values and terms of licensing
48	At the University the ILO takes advantage of having an industry partner involved in funding and setting the direction for the research by typically offering the industry partner an option to commercialize the resulting IP.
62	At some point it should be possible for a large company or small start up to claim ownership of the technology that they are trying to commercialize. Ownership could be related to commercialization milestones for example.
66	Again, smaller companies that are wary of risking intellectual property rights have been cautious about proceeding with the commercialization of research results knowing that the research results could be accessed within an academic context.
68	In some cases, the industry partner insists on controlling all IP so a potential deal is lost.
85	If IP remains within control of the University, so too does commercialization.
88	Since we own IP and have to continue to own it (no disposal policy), the NSERC policy mirrors our own in that IP ownership must remain with institution and can therefore only be licensed.
98	The only exception to the answer above are one or two technology sectors are



	<p>very demanding vis-a-vis intellectual property and are ultimately seeking royalty-free ownership. Companies license technologies all the time. Spin-off companies raise capital on the basis of a license, not ownership. Companies do not need ownership to commercialize a technology or to exercise their legal rights - sufficient legal rights can be provided to the industry partner via appropriate clauses/language should the companies need to prosecute/protect their IP rights in court. Ownership of intellectual property is not a requirement for commercialization. Should assignment (ownership) of rights ever become an option under NSERC's IP Policy, one needs to be very cautious. Given the growing number of multi-institutional programs, and those programs that require some kind of industry involvement. The grant-back rights to a university of just the ability to undertake academic research, should assignment or ownership be permitted, would not allow those kinds of collaborations in the future and literally cut-off a researchers line of basic research and collaboration with others.</p>
117	<p>Individual ownership, rather than institutional ownership, particularly when there are two or more inventors, can present problems. Foremost is that another individual may arise later and claim co-inventorship -- whether true and indicative of an error, or false, but s/he smells an opportunity for a possible monetary settlement. This risk may not be acceptable to a licensee or other commercial partner. It may even leave the institution open to being sued by the licensee or other commercial partner, for misrepresentations about title. Also, in the U.S., whether there is a duty to disclose to the US Patent Office any prior information relevant to patentability of an invention, having ownership by different parties as of the date of the invention (e.g., by two or more inventors) increases the burden of disclosure and renders the patent vulnerable to attack based on fraudulent failure to disclose everything each individual knew that the others didn't. This burden cannot be repaired by later assignment to a single institution (e.g., the university). However, this problem of ``secret prior art`` does not arise at all if there is unified ownership by a single institution as of the date of invention.</p>
123	<p>I am neutral because in most cases if the third party is used to working with universities, it is not a barrier. If the third party is not used to working with universities then they will push to own the IP - at this point, it is possible that negotiations will break down.</p>
146	<p>It is not NSERC's policy per se that creates barriers to commercialization, but if NSERC's policy required ownership to vest with the University vs. the researcher, commercialization would certainly be more efficient and effective. The reasons for this are as follows: 1) Clear title to IP is one of the most critical elements that a company looks for when considering entering into a transaction to acquire rights to IP. Most inventions involve more than one researcher, and in those cases, when a company is negotiating a deal, they have to work with all the owners of the IP, whereas if IP ownership is consolidated into one legal entity (e.g. the University), the company only has to negotiate with one party. This is the primary reason that the University requires ownership in inventions be assigned to the University as it makes the transaction more efficient, and hence you get happy companies/repeat customers. 2) While there are a few researchers that have knowledge and expertise in some aspects of IP protection and strategy, marketing and technology valuation, determining optimal commercialization pathway (e.g. licensing vs. company creation) and</p>



	<p>structuring and negotiating intellectual property agreements, the vast majority of academic researchers don't have the expertise in this field, though many think they do. The result is that when those researchers attempt to commercialize on their own (through licensing to existing companies or creating new companies), at best the technology will be transferred to the company and the company may be able to effectively commercialize it, and at worst the researcher may a) open up significant liability to him/herself and/or the University, b) inadequately protect the IP so that the commercial value of the IP is lost (often resulting in companies not even doing a deal), c) poorly structuring the deal so that there is little local/regional economic impact. All in all, in many cases the result is often overall weak economic impact, loss of potentially valuable technologies that could have significant health and social impact on Canadians and the world, and poor value for taxpayers' dollars. By vesting ownership of IP in the University, a publicly organization whose mission is to provide returns to the community through its research, teaching and service, and by requiring the University to ensure that not only the research dollars are used wisely, but that the results of the research are appropriately brought forth into the broader community through traditional methods as well as through commercialization using an office staffed with people that have specialized expertise in technology transfer and commercialization, broader impacts and better value for the taxpayer can be achieved. As you are likely aware, the Bayh-Dole act in the U.S. was enacted by the federal government in 1980 for these reasons (and more) and the impact has been phenomenal.</p>
170	In «researcher owned» institutions, there is a risk that valuable IP may never be disclosed/commercialized.
175	NSERC's policy is tremendously helpful in making the case for Institution ownership.
181	The policy is not an impediment to commercialization
02-F	Aucun obstacle.
14-F	Pour les raisons évoquées ci-dessus, les entreprises en recherche de financement et dont l'actif n'est constitué que d'intangible sont plutôt réfractaires à l'idée de ne bénéficier que d'une option d'exploitation souvent limitée dans le temps.
23-F	En général, il ne s'agit pas d'un obstacle. Le seul cas ou cela peut être problématique est dans le cas du démarrage d'une société d'essaimage qui a souvent besoin de posséder la PI pour obtenir des financements.
27-F	Cette politique n'est pas un frein à la commercialisation. Les conditions appropriées pour favoriser la commercialisation peuvent être circonscrites dans les ententes de licence. C'est une approche un peu obtuse que de vouloir absolument détenir l'ensemble des droits sur la PI. Il est même très avantageux dans certains cas que les droits de PI soient détenus par l'Université.
	Vice-President, Research/ Office
11	Yes. IP is complicated enough without severe restraints. Reasonable flexibility is key.
20	As stated above, there have been several cases where a strong CRD potential or SPG proposal have been stopped prior to submission because of the lack of availability to transfer ownership of IP to the industrial partner. In this instances, the partners were poised as receptors ready to work towards commercializing the research results, something that the researchers at the University were



	more than excited to see happen. Given the increased cost to the company to fund the research directly with no leveraging opportunities, the partners moved on from the projects.
30	Depending on the timing of the research results, this may not be a problem
76	NSERC's policy on IP is no more a barrier to commercialization than is the University's policy of saying that IP from NSERC-funded work is owned by the researcher.
83	IP ownership is used as an excuse for poor performance of Canadian universities on IP development. This is completely false, as my University is one of the only institutions that have institution owned IP. All American universities do, and there are dramatic differences in performance, from excellent to poor (many State schools). Similarly, in Canada, my University has one of the strongest records of IP exploitation and development because of or in spite of its IP policy. Focus on IP ownership clouds the real problems in tech transfer.
86	In the final analysis, commercialization will or will not occur with the concurrence of the inventor, regardless of the IP policy in place at an institution. Consequently, institutional culture is probably the most important variable in encouraging commercialization. This can be influenced greatly not only by institutional strategic planning but also by the availability of funding for institutions and especially technology transfer offices which need to possess the flexibility and resources required to work effectively with prospective inventors and help convince them of the need to commercialize promising inventions.
92	We need to find ways to separate ownership from commercialization. This is especially true in collaborative efforts where everyone own a little piece of the pie. This becomes more important as we attach sophisticated problems in teams of researchers.
119	I feel that NSERC's current IP policy could be a barrier to collaboration with all the aforementioned partners, however perhaps not a significant one (would be case-by-case basis).
130	Successful commercialization of IP has always been demonstrated.
134	I do not believe the current policy is a particular barrier if the industry partner involved is a major company. If it is a start up often these entities seek Venture Capital funding. In most cases the investors may want the start up company to own the IP. There might be merit in relaxing the conditions in these instances.
143	It would be a case by case situation.
145	In most cases further R&D needs to take place before a commercial product is available. Smaller companies in particular, and to an extent start-ups, are reluctant to make the investment where they don't own the IP. It also has an impact on the ability to raise financing.
151	Sometimes researchers are not willing to give away their ownership but have no expertise on the commercialization side. This could lead to some difficulties.
182	The researcher has the right to commercialize alone or enlist the help of the university (in exchange for equity or equivalent)
12-F	Dans l'ensemble les compagnies et autres partenaires s'accommodent plutôt bien des ententes de licences développées dans les universités. Il se peut, à l'occasion, qu'une compagnie en démarrage veuille posséder la PI, pour par exemple l'offrir en garantie à l'encontre d'éventuels investissements, mais il est risqué de céder la PI dans les phases de démarrage d'une entreprise, les investisseurs pouvant être tentés de monnayer celle-ci rapidement ou encore la



	céder à des intérêts étrangers plutôt que de consentir tous les efforts nécessaires au démarrage.
18-F	Nous tentons de faire comprendre aux partenaires qui veulent exploiter les résultats de la recherche que ce qui est important pour eux ce n'est pas de détenir la PI mais bien d'avoir la capacité et tous les droits d'exploiter ladite PI.
24-F	Le chercheur doit pouvoir céder ses droits de PI À l'université aux fins de valorisation. L'université peut, pour les mêmes fins céder les droits de PI à une société de valorisation auxquelles elle adhère.
25-F	Comme certains types de financement externes ont comme condition que l'entreprise détienne les droits de PI, il devient parfois difficile d'obtenir le financement requis menant à la commercialisation.
26-F	Cela rend les négos plus délicates, mais, encore la, je ne crois pas qu'il faille changer la politique du CRSNG, bien au contraire. La PI des résultats de la recherche publique devraient rester «publics».
	PRIVATE
1	It depends upon the circumstances surrounding the commercialization. A license for a minor development is not the same as a platform technology that will form the basis of a new company.
3	The policy is not the problem. The university managers, mixed with researchers that are not informed correctly, can make negotiations very, very difficult. Usually, university technology transfer managers are very junior and industries must educate as much as negotiate in collaborations. Most professors have even less experience. This is where the real challenge is when it comes time to commercialize IP.
4	It would be very difficult to get a favorable ROI if industry has to share revenues from a project with an institution that had no investment in bringing it to fruition.
6	The industry has concerns on commercialize a product prematurely and hence would prefer to confirm and verify the results prior to commercialization. Researchers, on the other hand, would prefer to initiate the commercialization as soon as possible. Since the researchers have the ownership of the product, this may introduce conflict.
9	In some cases, industrial partners would commercialize or implement research results much more rapidly if they earned or acquired ownership rights.
22	It can be hard to get investment funding required to commercialize a technology
29	A significant investment is required to bring a technology to market from the initial university development phase. The current policy may prevent industry from making such an investment.
31	It is a severe hurdle for small companies who participate in NSERC projects and who may be seeking venture capital financing, or other investor financing. The VCs see this policy as a red flag that they need to scrutinize in order to be assured that future litigation will not occur by the inventors trying to get more from the company, or the inventors using the IP in other ways that may be harmful to the company's efforts, and thus the commercialization potential is hampered.
32	Ownership of IP by industry creates a lot of value for them that they can then use to further develop and commercialize technologies.
42	See above. Further, given the level of uncertainty in this type of investing, it is important that we have unfettered access to all potential applications. When one starts down the commercialization road, it is often unclear which



	applications succeed. Only by making substantial investments are we able to get clarity on this subject. So again, constraining the number of potential applications curtails investment from venture capital firms.
44	In the absence of a clear commercialization path for resulting IP, industry participants will consider the collaborative opportunity to be a higher risk investment. Also once the IP is created, it will be valued much higher by the researcher than it would have prior to the collaborative investment, resulting in delayed negotiations should commercialization be pursued.
45	The commercialization is usually considered up front and the project will not be undertaken if the IP considerations will hinder commercialization.
49	From our point of view the main question is not about the IP ownership. The main question is about the IP license terms. We think that it is sufficient if IP owner is willing to provide a non-exclusive fully paid-up commercial license for generated IP to the industrial collaborators.
52	NSERC's policy is excellent, although the University should have the right to assign it to industry if that is to the benefit of the researchers.
53	Absolutely! The same position taken above can result in discovery-based or pre-competitive research being conducted in collaboration with university researchers, but then have any next steps abandoned, or terminated. This means that any joint IP could then be taken in-house - legitimately under the IP agreement - and commercialization efforts being conducted unilaterally. The major threat here is that at that point, the commercialization work could be moved out of country with little benefit to Canada.
55	I have no knowledge as to whether the policy is a barrier to commercialization but would be surprised if proved to be a barrier unless the researcher's institution did not support commercialization, which would be unlikely.
56	See comments under (18). In essence, in a global economy, there isn't the time for long contractual negotiations and on problems that evolve quickly. The urgency is to promote continuous innovation through industry-university dialogue. Success will breed success. Painful success won't be repeated too often. Innovation in Canada is doomed by a failure to make innovation easier.
63	There are three points which need to be considered to understand the response given above. 1 - Universities generate significant and valuable ideas; however, in most cases commercialization of an idea involves many or all of the following: several billions of dollars of infrastructure, substantial additional R&D and product integration, and potentially even market creation. 2 - The current NSERC policy focuses on retention of IP ownership within university and then measures university's success in terms of licensing revenue from IP. Since universities do not have in place the value chains which can turn these ideas into marketable products, these revenues are low. 3 - Industry is embracing Open Innovation and is eager to partner with academia in idea generation, and is willing to contribute cash and in-kind for research collaborations which can result in generation of several new ideas, however IP is certainly an issue. If NSERC's policy: i) allowed for an IP agreement which afforded each partner (university and industry) to have appropriate control of research results such that each could subsequently pursue their own "value chain" (as the case may be) and ii) evaluated university based on number of ideas which eventually found their way to market, industry would be far more enthusiastic about engaging in early research/idea generation with university and more of these



	ideas would eventually be commercialized as a result of enabling the industry partner to build upon them for their own specific application / value chain. University would be free to decide whether to offer their portion for license or to utilize of the idea for further development in another field. NSERC should not however, encourage university to view the innovation partner as a customer for licensing revenue subsequent to the collaboration, as is currently the case.
67	In the case of multi-agency, collaborative R&D, it is often difficult for academics and government researchers to achieve a priori clarity on I.P. rights and in the case of unexpected, positive results (patentable or having commercial value), there is always a risk that I.P. agreements are not sufficiently explicit to cover team-based discoveries.
72	Licensing terms are usually defined early on in the agreement negotiated to reduce the barrier to the commercialization of research results
78	Again, as long as a license is allowed for in the collaborative agreement, commercialization isn't seen as a serious problem.
79	It is not always possible to work with groups that have strict IP policies thus the struggle between University and Researcher may lead to a lack of vision and roadmap to commercialization.
95	If commercialized IP has value, then there will always be groups who will participate in the process regardless of who owns the IP. The cost to commercialize IP will vary depending on the value of the "product".
96	My company will not enter an agreement unless they own the end result
102	As above, it is the willingness of the researcher not the policy that dictates how the IP information is used.
106	We have an agreement which allows us access to the results without fee, but leaves ownership with the university and researchers, there seems to be no issue here for Open Text.
110	Again, it will all depend on how the university is ready to share the profits.
114	The normally highly limited use rights afforded to industry sponsors mean that the sponsor faces substantial investment at both research and commercialization stages, which may work against plans to pursue commercial implementation.
118	When we are not the owner, legal matters and delays prevent commercializing in a reasonable time laps and at a sustainable price.
121	It could delay the implementation of research results.
122	We are hesitant to enter into these collaborations if we think that we could develop a product on our own in order to own the IP rights.
125	I believe it is possible to reconcile the policy requirements and the needs relating to the commercialization or implementation of research results.
126	If a company, University and NRC are involved in a project, and the University has the rights to the IP, that could be a problem for the company.
127	This really depends on the licensing fees charged by the owners (e.g. universities) and will only be a limitation in the countries where IP has been secured.
129	It depends upon the circumstances but at a key point in a company`s evolution it needs to own the IP in order to properly exploit it particularly if the IP is the foundation of the company.
132	If the universities retained the rights and were willing to pursue



	commercialization I would not expect any barriers.
133	In some circumstances in particular if significant further investment is required to bring the development to commercial implementation, it is possible that without some reward, usually an opportunity to have some advantage in representation of the new technology, that a development may not be able to solicit sufficient funding to achieve commercialization. I however feel strongly that if this is the case this opportunity should be afforded to Canadian companies only so that the benefits will fall to Canadian industry and thus Canada first. I believe that there will always be sufficient support available somewhere if the opportunities as presented to the entire Canadian industry.
138	The policy is not a barrier for the implementation of research results, but it is a significant barrier to its commercialization as this should involve full control over licensing and enforcement of the IP against Third Parties (which is thwarted by giving ownership to Universities).
139	University offices for commercialization often force the IP rules to absolutely deny non-exclusive free license to the collaborators, creating an additional barrier to the collaboration as well as commercialization of the result. They impose first right of refusal exclusive license rules that are impossible to execute for multiple reasons: 1. Timelines for commercialization are impossible to predict; 2. The % value for each party is impossible to estimate especially when the developed method is one a large number of other methods from my University sources integrated into a commercialized product; 3. Often the IP doesn't become part of a commercialized product, but the know-how is applied to provide a one-time solution for a contractor. The value of applying IP in this manner is not easy to estimate
140	As per my response to question 9/10, the current policy often limits the joint industry/university research currently being done at universities (which are funded by NSERC) to exploratory research as opposed to more applied research. If the ``rules`` were changed to allow joint/industry ownership of the IP I think you would see a lot more applied research being done at universities, hence a much higher likelihood that it would be commercialized.
154	A method can be developed by a small industry without the financial means to prove the utility. The method can be tested by a publicly funded program such as NSERC to assure that it works and to make it more acceptable to the public who enjoys the net benefit. However, the small industry can completely lose ownership of the technology unless the process is fully patented and the publicly funded program is not focused on only patentable research and or financial gain of that research in commercial exploitation. Ideally, public funded «research» is for the public good and not for the financial gain of the public institution. The US government generally only requires a license to use for its purposes the object of any inventions growing out of its funded effort. There is a different rule for cooperation with a small business versus a large corporation. Note, large corporations do not need funding to prove utility.
159	Company would like to have a right of first refusal to purchase the IP outright.
160	The policy does not recognize that IP is at the beginning of an enterprise the only asset of value the enterprise has. By limiting access to IP its full value cannot be realized. NSERC is thus de-valuing the research result by this policy.
162	The policy works well when the university or the researcher has the will and resources to patent intellectual property. However, if they have no interest (or



	lack the funds) to patent, the policy, which does not allow transfer of rights, prevents some good inventions from being commercialized. I think that if the industrial partner wants to proceed with a patent and decides to commit the resources, and the university does not want to support this, the university should be able to transfer the rights.
167	Industry should have ownership in unbounded areas.
172	Too much technology and too few receptors. Why put in barriers. Assign the IP and let someone else deal with prosecution, defense and enforcement.
174	As an example, I may not be interested in gaining access to a piece of university IP if it was not completely clear who else had access to it, and for what purposes, and ultimately what rights I may be able to get to it.
176	The tech transfer offices of Canadian universities are not competitive, and are naive. International universities not in Canada generally are more sophisticated.
177	This becomes more complicated since all IP is in the public domain, then commercialization should be straightforward. If its not, then problems might arise.
178	If uni does not own the IP, it is not likely to initiate commercialization.
184	Universities typically do not have development and commercialization technical / pilot scale facilities or scale-up process or product expertise to exemplify the potential commercial value of the technology. Investment of this nature by the university would be immense and why do it when partnering with Canadian industry would create potential value-adding and win-win relationships.
05-F	Par exemple, une recherche en partenariat débouche sur une technologie innovatrice. Le partenaire industriel pourrait juger que le marché n'est pas encore prêt à recevoir cette technologie ou produit. Si le propriétaire (université) décide de quand même tenter de mettre en marché la technologie, ceci pourrait résulter en un échec commercial et un gaspillage de ressources.
10-F	Souvent l'entreprise doit donner des garanties à ses clients que son produit ou ses technologies ne violent pas les droits de PI de tiers. Si ladite entreprise ne dispose que d'une licence de l'université sur une technologie incluse dans son produit, alors l'entreprise doit demander des garanties à l'université pour se protéger et donner les garanties demandées par son client. L'université étant incapable de donner ce type de garantie ou incapable d'assumer ce risque, son licencié ne pourra intégrer ladite technologie dans son produit et sa licence avec l'université sur ladite technologie devient caduque! On peut rédiger les plus belles licences Université-entreprise mais au bout du compte s'il y a un risque juridico-financier à être assumé et que ce risque ne peut être assumé par l'université, il y a incompatibilité. Une cession des droits de l'université à l'entreprise, permet davantage a l'entreprise d'assumer ce risque, qui en partie peut être absorbé par son assureur....Aussi, il faut comprendre dans certain cas que l'entreprise doit concéder des sous-licences a ses sous-traitants ou ses clients. Encore la le type de sous-licence à concéder est rarement compatible avec des licences de type universitaire en terme des garanties requises. Sans compter que les modèles d'affaires peuvent aussi varier en transfert de technologie car une entreprise peut parfois transiger ses droits de propriétés de PI sous forme de licence croisée ou sous forme de compensation en nature (de contrat additionnel, option sur futur contrat, retombé marketing...etc). Si l'entreprise bénéficie seulement d'une licence sur PI de l'université, tous ces leviers d'affaires ne peuvent s'appliquer. Mon commentaire vise seulement a



	illustré que dans un contexte où l'université est actionnaire de l'entreprise et que la technologie est un actif important de l'entreprise, l'université devrait privilégier la cession de ses droits PI plutôt que l'octroi d'une licence exclusive. Dans le cas d'une licence non exclusive à son partenaire industriel, mes commentaires ci-dessus doivent être nuancés, car si ladite licence est non exclusive c'est probablement que l'entreprise ne peut démontrer sa capacité d'adresser tous les marchés potentiels ciblés par la technologie ou sa capacité d'exploiter pleinement la technologie...
11-F	De la façon que cela est négocié cela est un obstacle en fonction de sensibilité de la technologie à la compétition et à la divulgation de l'information reliée à cette étant donné la capacité de copier ou de faire un similaire projet similaire sans bris de brevet ou de propriété intellectuelle par un compétiteur.
20-F	Je pense même que la propriété intellectuelle favorise la commercialisation car la P.I. protège les propriétaires des droits de commercialisation.
33-F	Il est tout à fait normal que la PI reste la propriété de ses inventeurs. On doit s'assurer que l'industrie qui a participé financièrement en profite. Mais on doit s'assurer que si la partie privée ne rencontre pas les objectifs de commercialisation, l'université, ses chercheurs et par conséquent notre pays puisse garder le contrôle sur sa PI.
PUBLIC	
109	See above. I would add that there are easy solutions to reducing the barrier - for example - standard IP licensing agreements across all provincial institutions that are short and simple. This is well trodden ground - all of the templates are there. NSERC, being the most progressive of the granting councils, would have the credibility of enforcing this on the recipient institutions.
142	The industry must be adapt very fast their products and services. So, the barrier must be minimal.
144	The need to always «license» from a researcher and/or his/her institution is believed to be a barrier to commercialization and implementation primarily because of the extra layer of administration that causes undue timing and control limitations. A restricted ability to timely execute in the commercial milieu of course often translates into lost of opportunities, IP protection and enforcement, and commercial viability and profitability.
179	It really depends on the particular situation, so yes, in some situations it could be a barrier, in others it would represent an insignificant barrier.
21-F	Idem que pour la question 10.

21. Veuillez indiquer votre accord ou désaccord avec l'expression suivante : La politique protège suffisamment le droit des titulaires d'une subvention à :

- a) publier les résultats de leur recherche
 - Tout à fait d'accord
 - D'accord
 - Ni en accord, ni en désaccord
 - En désaccord
 - Tout à fait en désaccord

- b) poursuivre leur recherche universitaire
 - Tout à fait d'accord
 - D'accord



Ni en accord, ni en désaccord
En désaccord
Tout à fait en désaccord

N ^o	Commentaires du répondant à la question 21 (indiqués dans la langue du répondant)
	UNIVERSITY
	Professors
16	The publication rights are protected. The collaboration is not.
23	It is protecting well. We never had problems with publishing or continuing further on the subject.
27	I have never had problems with publishing. Papers are submitted one day after patent applications are filed.
28	Academics must be able to publish their research, otherwise they should move to industry
33	They are obviously protected.
34	The six month delay that the policy permits is the only potential concern and this not a long enough period to cause a problem to the grantee.
43	Not if this involves industry.
59	The question as posed misses the key issue namely that if one has developed a truly novel and important intellectual property then any publication can negate its value very quickly. This means that there is an inherent conflict between NSERC's policies and practices in terms of publication and commercialization.
64	How much explanation is necessary? I have never experienced any difficulties in terms of publication, nor of students preparing theses.
81	I feel that the results of publicly funded research should be publicly available. The policy provides adequate protection for corporate sponsors while insuring rights to publication.
93	Industry partners accept the principles of the current NSERC policy. This standard policy prevents the potential need to negotiate intellectual property agreements on a case-by-case basis.
99	It is up to researchers to publish or go for patents if their research is sponsored by NSERC or other grant agencies.
101	I have published extensively and maintained a strong and evolving research program while also carrying on technology transfer activity and have never had any difficulties that arose from the current policy
111	The policy clearly provides instructions on delays and review of publications.
116	These rights are protected by NSERC policies
124	At least at my University it's the inventor who decides.
137	Ownership and publication are different and sometimes laddering may be required to allow sufficient time to publish. This could affect timely publication of research results. Academic research can however be continued, as usually the adoption of previous work is granted to the inventor.
141	In most cases it put the software in public domain and give the solution to other countries to take advantage
148	There have been no problems to date with publication of data from projects with industry partners. In only one case were we requested to hold back publication for 6 months.



01-F	En même temps, cette politique nous permet de fermer la porte à toute tentative de négociation. Si vous la modifiez trop, on n'aura plus de pouvoir pour négocier. C'est notre chien de garde des principes.
04-F	Tout dépend de la politique de chaque Université concernant le partage de la PI entre l'Université et les chercheurs.
07-F	La protection est plus que suffisante. Elle pourrait être moins forte.
09-F	Je n'ai jamais senti de contraintes de ce côté.
13-F	Bien que la politique (ainsi que les conventions de recherche) soit claire, il peut arriver que des partenaires, en cours de route, prennent conscience du fait que des informations qu'ils jugent maintenant 'sensibles' seront divulguées dans le processus de publication d'un mémoire ou d'une thèse. Cela peut parfois causer des frictions qu'un chercheur pourra devoir amoindrir s'il a l'intention de solliciter à nouveau le même partenaire pour un autre projet en partenariat.
15-F	On peut toujours choisir ce que l'on veut publier. Nous avons toujours publié les résultats théoriques de notre recherche sans toutefois publier les détails d'implantation (ce qui de toute façon aurait été passablement difficile).
16-F	Les limites sur la durée d'un empêchement à publier sont tout à fait acceptables.
	Industry-Liaison Office/ Technology Transfer Office
18	It is one of the priorities of NSERC and Laval University. Rarely challenged by the partners.
26	No real problems experienced
35	Publication is protected as is the right for further use in research or teaching. Depending on the rights granted in the license there might be some future constraints on commercialization but not on further research.
40	There is no mechanism for the university to interfere once a grant has been made and the appropriate project approvals (ethics, facilities etc.) have been completed.
46	A short delay to protect IP generally does not threaten the ability to publish. More problematic are those that publish not identifying sources of funding. For those that wish to keep research results as trade secrets, no institution can force them to publish. Finally, don't forget that institutions can't force people to do research if they are tenured.
48	Publishing rights are always preserved in such contract research agreements along with potential but limited delays for filing patent applications. By maintaining the ownership of resulting IP invented by university researchers and by ensuring any resulting licensing to industry partners preserves the university and researchers rights to use such IP for further research and teaching purposes the university ensures continued academic research.
62	I think the policy is clear on these aspects
66	The policy exists to protect publication rights and academic research. It achieves this goal.
68	It is important to maintain these rights as they form a baseline for collaborators to work from.
123	I believe the policy provides adequate protection of the above.
181	There are no impediments to publication of results. Respect is provided for the ability to protect intellectual property in advance of open publication.
14-F	L'industrie est habituellement favorable à l'idée de publication des résultats une



	fois les dispositions de protection prises. Elle est cependant moins réceptive à l'idée que le chercheur poursuive le développement car n'étant pas certaine de pouvoir suivre le chercheur et les contacts que ce dernier peut faire avec d'autres entreprises dans sa recherche de partenariat.
27-F	La politique de PI du CRSNG est tout à fait en harmonie avec la mission de l'université et doit le demeurer. Elle permet de maintenir l'équilibre entre une approche totalement ouverte et publique et la collaboration avec le secteur privé. Les universités peuvent et sans doute doivent contribuer au développement économique du pays, et la collaboration avec le secteur privé est une des avenues pour y parvenir. Le secteur privé doit toutefois comprendre et accepter que tant l'université que le CRSNG aient une mission d'intérêt public.
31-F	Présentement, la politique me semble accorder le contrôle aux titulaires.
34-F	La publication pourra être adaptée selon le modèle de valorisation envisagé (diffusion ou commercialisation). En cas de commercialisation il faut trouver un compromis entre l'importance de publier les résultats et la conservation de l'avantage concurrentiel du partenaire commercial. Conserver les droits sur la PI est essentiel pour conserver le droit de poursuivre la recherche.
	Vice-President, Research/ Office
11	I just think the policy is very grantee friendly and so does protect them.
30	Do not believe the current policy inhibits research at Universities
61	It gives adequate protection to their rights
83	Companies will frequently claim IP ownership to control intellectual developments in a given area. This can infringe on researcher rights, especially those of students.
92	We have seen instances where researchers are prepared to sign over IP for little economic benefit. We actively discourage this type of relationship. Most researchers don't understand IP and working with industry.
130	The policy is clear.
134	The current agreement ensures these capabilities. These requirements could be ensured in a contract with appropriate conditions. However, at the University since the investigator owns the IP the university has taken the position that it will not negotiate IP causes in the contract with the university if the IP is not assigned to the university. The investigator can negotiate a separate agreement with the company around IP but we would ensure that the above rights were entrenched in the contract. Sometimes this is difficult.
145	The policy is helpful when negotiating agreements. It should be pointed out that the policy published on the NSERC website is not the same as what is presented in this survey. The policy on the website does not specify a 6 month maximum delay. http://www.nserc.gc.ca/professors_e.asp?nav=profnav&lbi=p11
151	Grantee makes the first decision to publish or not.
182	Usual partnership agreements specify a limited time before public disclosure of results. This way, IP is also protected in a timely fashion.
12-F	La politique permet de publier et de poursuivre notre recherche.
18-F	J'œuvre dans les universités depuis plusieurs années et je n'ai jamais vu de chercheur avoir des problèmes à publier des résultats découlant d'une subvention du CRSNG ou à poursuivre leurs travaux de recherche. Dans le cadre de projets de partenariat, j'ai déjà vu des partenaires demander un report



	de publication afin qu'ils aient le temps d'évaluer si les résultats étaient brevetables mais tout s'est toujours bien passé et les partenaires se sont décidés assez rapidement afin de ne pas retarder inutilement une publication.
25-F	Je suis globalement d'accord. Cependant, mon expérience m'a appris que la mauvaise foi d'une des parties, même avec une telle politique, peut parfois mener à des aberrations.
26-F	Le texte de la politique est clair.
	PRIVATE
1	In most instances industry does not have an issue with publication or continuing research as long as sufficient efforts have been made to protect the IP and ensure that any company confidential information is protected prior to publication. In many instances the publication of solid scientific data as well as continuing research adds substance and support to an industry partner's efforts to commercialize.
3	Not much to say. The policy clearly states that industries cannot stop forever publications and use of the IP for academic use.
4	Given the 'academic' level that publications are created, Industry does not have to worry that the IP can be stolen or copied by others. In the spirit of partnership, publications should be read by industry before they are made public. And based on the publications that I have reviewed, I am not concerned that the IP could be compromised.
6	The agreement favors the grantee and provides them freedom to publish and research,
22	The procedure by companies involved in CRDs to review abstracts and papers ahead of time (e.g. two months) is cumbersome but unfortunately, unavoidable.
29	The policy protects free unhindered academic research and the right to publish; however, both of these attributes can be considered as being detrimental to the patenting and commercialization process.
31	It's written from the university perspective.
32	Protection for both of these terms is clearly provided.
45	We have always been able to reach agreement on the content of papers so that publications and research are not restricted.
49	NSERC policy provides realistic time frame for publication review. I am not sure I understand this question. Are we talking research continuity spanning several grant applications?
52	We would never suggest that NSERC fund «secret» projects or allow companies to prevent researchers from continuing on with their research.
53	Apart from protecting proprietary company info, especially for the preparation of IP (i.e. patent applications), the policy is intended to allow researchers to publish to sustain and grow their academic credentials. It also is intended to allow them to continue to conduct research in the field, for the same reason. After all, it was these credentials that attracted the company to the researcher in the first place! It would be counterproductive to then deny that partner the ability to continue to develop in that specialty.
55	The policy on publishing is clear within the policy. The policy should not have the effect on continuation of the academic research that research results would have. In other words, I do not see the Policy as an academic restriction.
56	Industry needs validation of new ideas that are commercialized, and industry will



	easily find ways to ensure relevant publication without giving away knowledge that destroys Canadian industry's competitive advantage in a global market. In a global market place, the right to publish is often a guarantee that ideas will not be commercialized to the advantage of the Canadian society that pays for the research unless industry and academics understand the dynamics and find ways to address each others needs. A collaborative research effort between industry and academia will flourish and continue if success is achieved in early efforts of collaboration. You can promote a freedom to continue academic research by decree, or encourage it by a successful collaboration that keeps the partners coming back for more of the success as ideas evolve. To the academic researcher, it is money for research that matters, and to industry it is paying for research that speeds innovation (ideas to market). It is time to get the two together by policy.
65	Contract language around freedom to publish research results has generally not been an issue. IP ownership is the major problem we have working with Canadian universities and institutions.
67	Self evident - clear I.P. policies protect the researchers and allow them to communicate results and follow up with new projects.
72	The policy sufficiently protects its grantees, no doubt, but in some way acts as barrier to the further investment of the industrial partner.
78	We fully support the policy and the interpretation that universities should not be prevented from publishing the academic results. A corporate review can be allowed for as long as there are specific and short term periods within which the review must be held.
95	The policy protects the rights of the grantees insofar as to allow subsequent pursuit of research and publication. It may limit the facility of the researcher to do so, however, by affording the partners in the process to vet, the published work for proprietary information.
96	IP issues should not be published since it gives the private sector competition with more info also the research can continue if it is directly related but not the same research.
102	Instead of the Policy forcing the hand of the researcher, it does allow a right to protect, if only for a specific time period. This does create a sense of security for the researcher.
105	An academic scientist is always free to pursue whatever studies he or she seems fit. However, when these studies fall in the domain of patentable material or inventions potentially owned in whole or in part by industry, then they have a responsibility to pursue research in a manner that will not inadvertently destroy commercial value (e.g. publish before patenting). This use to be perceived as a huge burden by academics, but it is now better appreciated through education and examples of financial successful of academic through commercialization of research. The difficulty in commercializing discoveries, the lack of sufficient numbers of entrepreneurs and the generous access to public funds of all sorts, argue for the full cooperation of academics when they are working on proprietary research. The greater economic benefit to all Canadians must take precedence over the potential minor restrictions on researchers' freedom.
106	The policy in both areas is essentially the same as what Open Text and the University had in the agreement that was made for its sponsorship.



114	The grantees are very well protected by the current policy, and in fact are probably the most significant beneficiary of the policy philosophy.
126	The NRC scholarships as they currently stands allows flexibility between companies and Universities to define what can and cannot be published for IP reasons, and this seems to work.
129	In my experience there is nothing preventing a researcher from publishing or continuing to work in a field. Having said this, care must be taken by those dealing with the IP and doing the actual commercial negotiations to ensure that these rights form part of the agreement and that all parties understand this on the front end. Most companies once the IP has been protected have no issues with publishing or continued research as both are beneficial to commercial success.
138	Not sure how to answer this question as the protection of the Universities' right to publish and to continue their academic research does not require giving them IP Ownership: non-exclusive licensing can fully accomplish this goal. By giving Universities ownership rights, NSERC is going above and beyond what is necessary, because it is giving Universities the rights to sell/share such IP to Third Parties (including in a way that may be against Industry interests).
139	Assuming there is an agreement with the partnering organizations to review the publication for proprietary content in timely manner, there should be no barriers for publication
140	As the current policy currently gives the grantee ownership of the IP they clearly have the right to publish it. Relative to continuing their research in terms of progressing the technology, I think it limits their ability to move it towards commercialization.
154	Application for patent protection can be obtained as needed before the deadline after disclosure.
160	Current policy is strongly in favor of promoting conventional academic activities.
167	The policy protects so much as to being more problematic than useful.
176	The policy overly protects the grantees. Generally universities lose money on running tech transfer offices. If the result of research solely funded by NSERC is to be used widely, e.g. hybridoma technology from the University, no patents should be sought.
177	The rules are quite clear.
184	Yes it does, assuming that the grantee is the university. However, from the industry perspective, this is perhaps the wrong question. There is no balance versus commercialization timelines needed to determine if patent protection is warranted. Time to understand the potential commercial value of a technology varies with industry. A thesis is public domain information. Publication of information without prior patent protection in place diminishes the value of any potential patent thereafter. The 'clock' must start after receipt of a 'final report' from the project after completion of the collaboration (project).
33-F	Evident.
11-F	Ma position est une position d'industriel participant au financement et ayant participé au développement d'une technologie. Il est difficile de protégé la confidentialité de l'information. Je crois qu'il doit y avoir possibilité de protéger selon la nature des projets. Quel est le niveau de sensibilité et en fonction du niveau de financement provenant du partenaire industriel.
PUBLIC	



142	The policy is very well defined
144	In terms of the researchers' right of publication, if the resultant IP is of value, the researchers will be (and by law will have to be) named inventors on patent publications, regardless of to whom the IP ownership belongs. Similarly, if the IP is of value, the inventors themselves will be the best persons to continue the research. In a sense, guaranteeing that the institution owns the IP does really guarantee continuation of research as the inventors move from institution to institution. Perhaps instead of stipulating for the institution to own the IP, one should stipulate that the inventors themselves should retain at least part ownership to the IP ?
21-F	Bien sur puisque tous les droits de PI appartiennent à l'inventeur/l'établissement universitaire. Ce droit n'est encadré que par le droit des partenaires d'exploiter les résultats selon les termes convenus avec l'établissement universitaire.

23. Veuillez indiquer votre accord ou désaccord avec l'expression suivante : Le délai de six mois actuellement prévu avant la publication des résultats de la recherche est suffisant pour demander la protection de la propriété intellectuelle.

- Tout à fait d'accord
- D'accord
- Ni en accord, ni en désaccord
- En désaccord
- Tout à fait en désaccord

N°	Commentaires du répondant à la question 23 (indiqués dans la langue du répondant)
	UNIVERSITY
	Professor
21	If the IP is worth protecting, six months is enough to negotiate and file.
23	I found too long. We are using less.
27	Sometimes there are long delays in having patent applications filed. Yet patent law says we cannot publish before a patent application is filed.
33	Any longer would be a problem for publication productivity.
34	There are provisional patent options that make it possible to provide protection quickly.
43	One month is sufficient
59	I have now developed five technologies that have been transferred to the industrial sector. The most significant of these involved the start up of a new Canadian company. Raising a multi-million venture capital infusion to start the company took two years hard work. Any publication would have made this a much more difficult process and likely stopped the investment. (The investment to this point is ca \$30M.) My experience shows that the issue of a patent can take multiple years. Moreover, even the writing a first rate patent application by experienced patent lawyers can take months.
60	Concurs with most requirements by industry
64	6 months is plenty of time to get e.g. a provisional patent application filed, if the university has the wherewith all to do so.



81	Large corporations frequently move slowly. Six months should be sufficient but--?
91	This is normally enough time.
93	It is a challenge to complete the formalities of a patent application within this time frame. An extension to one year would be helpful. The opportunities for provisional patent application are available, but the costs are challenging.
99	Usually, we need more than 6 months for publication because of usually long review process.
101	I have over 100 patents and have never had any difficulty with proper timing with regard to publication deadlines. This simply requires a little bit of planning.
103	This length of time could be halved. Provisional patent applications can be made very quickly.
111	This is a reasonable timeline given the work needed to do this.
116	Experience indicates that 6 months is sufficient
137	It is acceptable but the delay may not allow sufficient time for the creation of ROI.
148	An extension past 6 months may provide more time for the industry but takes away from the value of the research if it cannot be published on time.
17-F	In fact, 3 to 4 months would be sufficient. There is little justification for a 6 month delay.
01-F	Un peu plus long 1 an aiderait. En pratique, beaucoup d'étudiant mette énormément de temps à rédiger. En ce qui me concerne, ça mettrait sur papier ce qui se vit concrètement.
04-F	Six mois sont suffisants pour rédiger une demande de brevet.
07-F	Voir # 18. Le délai n'est pas suffisant dans les domaines ou les brevets ne s'appliquent pas.
13-F	A mon avis, il s'agit d'un délai suffisant pour un partenaire réellement intéressé à protéger une PI.
15-F	Je ne sais pas vraiment; dans mon domaine, on ne peut pas demander de brevet pour une découverte mathématique.
16-F	Un délai de 6 mois me semble suffisant pour déposer un brevet complet et bien étoffé. Il suffit de s'y prendre à temps. La difficulté se trouve plutôt dans la stratégie de dépôt du brevet, notamment pour une demande provisionnelle qui ne donne qu'un délai de 12 mois avant le dépôt du brevet complet (ou encore de la décision de ne pas poursuivre le processus de protection).
	Industry-Liaison Office/ Technology Transfer Office
14	If the research is ready for publication and has significant potential for intellectual property and a good organization exists at the university then I believe strongly that the above statement is true.
18	When needed we can (and have) file(d) a provisional patent application in less than a week. Six months is plenty of time.
19	Can file a provisional in <30 days so 6 months is fine.
35	I recommend only granting 3 months delay which might be extended by mutual written consent.



36	I agree to this statement for most patent filing we have done.
40	In extremely rare cases an extension could be required. I would prefer to leave the default where it is and ask for extensions on an 68as needed68 basis.
46	It rarely takes more than 6 months to decide to patent and get the first patent application filed
62	6 months is a fair time to both wait ant to file a patent application if all parties are in agreement. There could be some problems relating to this time line should disagreement/failure to inform the other party be the case.
66	Six months is generally sufficient time to both evaluate a technology and seek appropriate protections.
68	There might be cases where the IP is not uncovered to the degree of knowing whether a patent is the right choice for protecting an invention until further down the R&D path. For example, the momentum on a 2-year project often occurs at the 6-month timeline.
88	Generally, we seek a 12 month period to permit protection and/or commercialization. Filing protection may not take 6 months but it takes careful and time consuming evaluation and assessment to decide when to file and 6 months may not be enough for both assessment and filing.
98	Longer delays could adversely affect the right of students and researchers to publish, and in practice, IP needs to be protected quickly, given competition. Six months is more than enough time to file for protection.
117	Six months should not be a problem in terms of actually drafting and filing the patent application. Rather, where it could be a problem is when time is needed to assess the market and the interest of various potential commercial partners (e.g., licensees).
123	If everything is in order and you know where you need to file, then it is absolutely sufficient. However, there is often much work to be done and sometimes 6 months is not enough.
181	Normally a provisional application may be filed within the six month period prior to release if proper notification of pending publication is provided.
14-F	L'industrie aimerait toujours obtenir plus de flexibilité en accord avec sa propre stratégie de développement et de commercialisation.
23-F	Le délai de six mois est en général suffisant pour faire les démarches de protection. Cependant, cela dépend de la maturité de l'invention. La publication rapide peut être dommageable à la protection de l'invention. La protection prématurée peut donner un brevet de faible valeur alors que le développement de l'invention sans publication durant une année aurait permis d'obtenir un brevet plus fort.
27-F	Par expérience, ce délai peut parfois être un peu juste, cela uniquement en raison du manque de disponibilité de certains intervenants. Dans tous les cas, il ne devrait jamais excéder un an. Il faut toutefois préciser que dans notre pratique, aucune restriction de publication ne peut avoir pour conséquence de retarder la diplômations d'un étudiant.
31-F	En général 6 mois devraient suffire, mais dans certains cas, il peut être nécessaire de régler des problèmes tels l'identification des inventeurs en



	cas de désaccords quant à la contribution inventive; aussi, il peut être nécessaire de vérifier les intérêts de tierces parties.
34-F	Comme les frais de protection ne sont pas admissibles à la subvention (cela serait un changement important et positif qui serait logique et en lien avec la volonté que les chercheurs conservent leurs droits et publient en même temps) et que ce ne sont pas toutes les universités qui ont les moyens de payer les frais importants de protection, nous devons appliquer des délais supérieurs soit 1) pour laisser le temps de trouver du financement pour les frais de protection, 2) pour laisser le temps aux chercheurs de fournir suffisamment de matière pour constituer une demande de brevet ayant des chances d'être acceptée ou 3) pour permettre une commercialisation même si l'invention n'apparaît pas brevetable mais porte un avantage concurrentiel commercialisable
	Vice-President, Research/ Office
8	Yes and no depending on the type of patent and field of expertise. BUT this has to also be recognized by the selection committee members. In many cases, they look at low productivity without understanding the issue of patent process and delays (I have seen some going for a delay of 1 to 1.5 years).
11	My brief experience on this is that 6 months is often too short a delay from determining something's protectability and then protecting it.
30	IP protection has proven to be very time consuming and do not believe that 6 months is long enough. Should be at least one year.
61	This has not been a problem.
83	Six months is long. Any longer is unnecessary
86	On occasion a longer period is needed and this is negotiated locally as it should be.
87	Industry liaison offices are busy places. A 12 month delay would be more reasonable.
92	We have committed resources to this to make this possible.
119	I have not yet had experience with this so could not accurately gauge time requirements at the moment.
130	In practice, even if an IP is protected, it is best not to publish it early on, in order not to trigger competition while commercialization efforts are just starting. In many cases, two years are more desirable.
134	Everyone must act quickly. Six months is not very long but reasonable.
145	Yes, 6 months is adequate time to put protection in place but this is not always sufficient time if patenting is not the optimal route to commercialization. If for example the maximum benefit will be obtained by first mover advantage a longer delay is more helpful than the filing of a patent.
151	IP protection can be easily done in this timeframe.
18-F	Pour évaluer la brevetabilité de résultats donnés on (incluant un partenaire) peut parfois désirer faire faire une étude de brevetabilité. Ensuite, si les résultats sont brevetables, les partenaires doivent faire approuver les coûts qui y seront reliés par différentes personnes ou comités. Il y a ensuite la rédaction complète du brevet, incluant la consultation avec les inventeurs, l'agent de brevet, etc...Six mois est un



	effet un court délai (surtout dans la période des vacances). Douze (12) mois serait préférables. Un entre-deux serait un délai de six mois en laissant la porte ouverte à un délai supplémentaire de 6 mois si les démarches sont amorcées mais pas terminées.
25-F	Au-delà d'un tel délai, il y aurait risque de nuire au caractère novateur d'une découverte que l'on voudrait diffuser dans les médias scientifiques, surtout dans des domaines en pleine effervescence comme celui des hautes technologies.
26-F	Cela correspond aux prescriptions de notre politique interne de PI.
	PRIVATE
1	6 months is more than adequate to file a patent application if required. In many instances presently university ILOs have already done this prior to industry involvement or are on top of the process while the research is project is being conducted.
3	Again very dependant on the experience within the university's office of technology transfer and the professor's haste to publish (many times, both the university OTT and industry finds out late that there is an upcoming publication and an urgent need to determine if we should patent).
4	It could be zero months. Publications are written at such a level that there is minimal risk that others may copy or steal the IP. Again, it would be helpful for Industry to review publications before they are released.
5	This has been sufficient in the past.
6	The 6-month delay is not sufficient since the process generally takes much more time (particularly at industry level due to multiple levels of review and comment).
22	6 months can be a short window when dealing with IP protection.
29	The US patent office lays open filed applications after 12 months and may not provide an initial office action or response to a filing for a period of up to 2 years or more.
31	In biological research the discovery phase may take several years, and a patent may ensue only after that time. Publication before that will constitute prior art and will invalidate any patent. Even the six-month provision is too short. It often takes longer than that to research the prior art, write and revise a patent, and obtain a filing date. This is particularly true for small companies, who may or may not have even one person skilled in IP protection.
32	Provided that the publication is submitted to the company with enough time to compete a review, 6 months should be enough time to protect the IP.
44	Although a complete filing for protection can take longer than 6 months, necessary initial steps to protect IP can be achieved within this time period and it appears to be a fair compromise with the needs of the researcher.
45	Six months should be sufficient time to review publications and if necessary apply for patent protection.
49	It gives enough time to file a provisional patent application.
50	It doesn't take long to file a provisional - 6 mo is ample time if the IP is really groundbreaking.



52	A little more time might allow for a better patent application (more data). Nine months to a year might be better/
53	I suppose I could make a case for 6 months, if every researcher were diligent enough to document a research disclosure early enough, and all university tech transfer offices were equal and had enough staff to process the patent applications, provisional or full. Otherwise, it could take more time, but hopefully, no more than 8-9 months total.
55	Six months should normally be enough time to address the issue if it is acted upon in a timely manner.
56	Sometimes the 6 months may be adequate. But in an area where internet access to ideas allows competition to be set up almost as soon as the ideas become published, then an academic initiative that has only established the basic concept and not the commercial reality will create instantaneous competition by other states with 10/1 or higher manpower capability but lower cost requirements to get to the commercial market. Publishing results that give away knowledge is not the same as ensuring that that knowledge will benefit the Canadian economy or support our general well-being.
63	Considering that this applies to a range of volumes of inventions and processes for filing, the six month timeframe is a reasonable middle ground.
65	We have typically asked to review any material prior to publication with right to delay public disclosure due to patenting or commercial reasons.
67	A year would be better.
72	Sometimes an academic researcher may decide to pursue publication at early stage of research where there is insufficient information to determine the patentability of the results. The 6-month delay for publication is considered short in such case where more time is needed to ensure IP protection is not jeopardized by the rush into publication.
79	Six months does not always provide sufficient time for the publication and protection of Intellectual property depending on the type of IP.
95	Don't know. This is dependent upon how expeditiously the responsible agency awards ownership to intellectual property.
96	If IP is owned by private then it is not an issue
102	Depending on the information and the amount of publications it could take up to two years to get all the papers published. It sometimes takes one year just to get a paper peer reviewed. I would think 18 months would be sufficient time and would still put pressure on the researcher to publish in a timely manner.
105	A patent only takes a few weeks to write when all the results are tabulated and ready. However, there is always the desire to include more and more data and this can delay or completely change an original patent strategy. Within 6 months, it should be possible to find the juste milieu and not have spent too much money re-filing similar patent applications because the latest results have to now be included.
114	Significant decision making is required to assess whether and where to file for patent protection. This is the case with industry, and it must be even more so for universities which are not normally part of a regional or global business context where such decisions are simplified and



	commonplace.
121	The process of a patent application takes about 1 year
122	A couple more months would be better because of how slow some of our departments work for things like patent submissions.
125	I believe a one-year delay would be better.
126	I do not know whether or not this is sufficient time
129	Some companies will complain about this being too short but in my experience this is sufficient time for IP protection to be put into place.
133	This timing is too short unless the industry sponsor is continually patenting developments and does not need to solicit the resources required for preparing the patent application (has the in house or permanently on retainer).
138	Considering the internal approval process of large companies, 6 months is short. 12 months would be more appropriate.
139	In over 14 years of University-Industry collaborative project history I haven't seen an instance when 6 months were not sufficient with our company (don't know about other partners)
140	When trying to pull all the necessary information together to file a patent, etc. it can often take longer than a year. A 1 year time frame would be more realistic.
153	Time to prepare and file is more like 12 months
154	I file provisional patent applications within a week of the time that I deem it necessary. Thereafter one has a year to file the complete application (in the US).
160	This could be timed better with patenting process. 6 months is very little time to draft a patent and have it submitted. Usual publication delay once a patent is filed is 12-18 months depending on the strategy taken. I'm not sure it is workable to time the publication with reasonable patenting time delays. A better approach might be to scrub patentable aspects from publications.
162	Often it is very difficult to evaluate the potential of an idea or invention originating from university research. Considerable work is required to corroborate the findings and develop the information to prepare the patent. There has to be some flexibility to extend the time period beyond 6 months to gather sufficient information to make an informed decision. An early publication could jeopardize the IP position.
172	Could be shorter. 90 days is enough.
176	Sometimes there needs to be more time. It should be left to each individual case.
177	Its more than sufficient time if somebody wants to apply for IP protection.
178	I believe it is plenty of time to file the patent.
184	The technology developed at the university level is typically at the "neophyte" stage of development. The technology needs much work to properly reduce the technology to practice for filing a commercially defensible and valuable patent with appropriate scope.
20-F	Je pense que les compilations peuvent se faire dans un délai de six mois.
33-F	Il faut mettre un délai quelque part. C'est normal. Et dans une



	collaboration qui se déroule normalement, ce problème ne devrait pas exister. Car, les deux parties devraient être conscientes de la nécessité de garder plus longtemps ou moins longtemps les résultats qu'on veut publier. Le 6 mois est une durée arbitraire qui devrait rester là en cas de litige.
11-F	Cela est trop court comme période et spécialement si le partenaire a à investir en capital pour développer le concept ou mettre en place la technologie
	PUBLIC
142	It is dependent on the subject. In general, It is correct
144	Strictly per the wording, I believe that a 6-month-period is more than sufficient to turn around a patent application. On a conceptual level, however, I am uncertain as to whether same is needed. Further, the distinction between a 6-months delay for publication vs. no delay for these defense is somewhat nonsensical in that if the material is presented in a thesis defense, it essentially has entered public domain and would not be considered confidential per se (hence should not be subject to any 6-month non-disclosure restriction). In a sense, the distinction perhaps should be drawn to be between a grant situation vs. a fee-for-service situation (e.g. where industrial partner pays full overhead to university)? For a grant case (e.g. student support), then there should be wording to ensure free publication ... whilst for a fee-for-service case, the right to publish should be left to the industrial partner and the researcher/institution to decide ?
179	In some cases, the 6 month could be a challenge, but in most cases it would be enough time to at least file, e.g., a provisional application.
21-F	L'antériorité des résultats peut être protégée par une demande de brevet provisoire le cas échéant qui est très facile à remplir et peu coûteuse. Cela donne 12 mois à l'auteur pour présenter une demande formelle en phase nationale ou encore dans le cadre des traités internationaux. A mon avis, le délai de 6 mois est suffisant.

25. Veuillez indiquer votre accord ou désaccord avec l'expression suivante : La politique protège suffisamment le droit des étudiants à :

a) soutenir leur thèse

Tout à fait d'accord

D'accord

Ni en accord, ni en désaccord

En désaccord

Tout à fait en désaccord

b) publier les résultats de leur recherche

Tout à fait d'accord

D'accord

Ni en accord, ni en désaccord

En désaccord

Tout à fait en désaccord

Explanations Here (Question 26)



N°	Commentaires (indiqués dans la langue du répondant)
	UNIVERSITY
	Professor
23	No problem with that at all!
33	They are obviously protected.
34	The NSERC policy does protect students adequately. However, how can NSERC verify that the policy is followed? I doubt that it is. In fact, in my opinion, NSERC does little to protect students from any form of abuse, not just in the IP area. For example, the HQP component of grant applications does not in any way evaluate the quality of supervision provided to research students.
60	Agree, but researcher must ensure through host-based contractual agreements that students are protected.
64	The NSERC policy is fine in this regard.
81	The policy requires that there be no delay in thesis defence, and in most cases the six month delay will not be the limiting factor in time to publication.
99	The policy is rather flexible, and it depends on the intent of faculty members and students.
101	My students are often involved in creating new IP and have never been hindered by the current policy.
111	No comment- policy clearly addresses this.
116	Policy seems to be working
124	Some issues have arisen in the past but this was investigator paranoia or unwillingness to file due to cost. That wouldn't change with any reasonable new policy
137	Publication delays are more crucial to students than to supervisors.
141	In my university it protects the Faculty but not the student!
17-F	There is little protection given to students. It is up to their supervisors to protect them. Some do this well, others not so well.
04-F	La politique n'empêche pas les étudiants à publier les résultats (six mois est le max délai) et selon les universités, ils peuvent aussi être copropriétaires de la PI découlant des projets auxquels ils participent s'ils sont co-auteurs de brevet.
07-F	La protection est plus que suffisante. Même si les délais étaient plus longs on peut toujours soutenir une thèse à huis clos. La publication pourrait être reportée plus de six mois si l'étudiant et le professeur obtiennent des avantages équivalents: pour l'étudiant un emploi intéressant dans l'entreprise, pour le professeur un processus reconnaissant l'importance de la recherche complété (une lettre de l'entreprise qui serait considérée dans le dossier de recherche ou un système d'évaluation à huis clos par des pairs)
15-F	Même commentaire qu'à la question 13.
30-F	Ces délais sont très longs, ils peuvent causer préjudices à l'étudiant.
	Industry-Liaison Office/ Technology Transfer Office
12	Policy doesn't seem to address students' rights to publish. Just their right to defend.
14	At the University since the researchers own the IP they are responsible for protecting the students and it is not possible for the university to adequately insure that this happens. The institution needs to own the IP to ensure that all



	parties are treated equally and fairly.
17	Faculty may still insist on appropriating student-generated IP.
18	Again the rights of the students should be and are clearly protected by the NSERC policy and the University. Rarely questioned by our partners.
35	The statement could more specifically mention graduate students as they relate to commercialization and partnerships with industry. I recommend it also include provisions that require faculty to enter into agreements with graduate students when they enter the labs and not after an invention has been made.
40	My Univeristy's policy on student work allows a maximum of one year deferral of publication. In the six years I have been here, it has never been requested.
46	The policy allowing researchers, i.e. faculty to own (i.e. have a primary financial interest in commercialization of research results) creates an inherent conflict of interest regarding their fiduciary responsibility to students, particularly grad students. Students lack power, knowing that their advisors can prevent them from obtaining jobs and can hurt their careers for years. With the rise of faculty unions and tenure, institutions cannot protect students or compel tenured faculty to do the right thing. Moreover, the deck is so stacked against institutions that they can't even investigate to determine the facts of a situation.
48	Contracts typically use wording that protects the students right to defend thesis and to graduate.
66	The policy is very clear that student rights to defend theses and publish are paramount. Thus far, the policy has not been a barrier to either of these processes.
117	I believe the policy not only protects students but goes too far. That is, I believe it is appropriate to have a master's defense where the committee signs confidentiality agreements effective until the patent application is filed (which should of course be expedited). This is because there is often so much rushing around with getting all the information into a thesis, that the patent agent may not get everything until very shortly before the defense. However, I do not think a PhD defense should ever be confidential. That would be contrary to the whole meaning and significance of a PhD, where any person (particularly any other PhD) should be able to walk in to the defense and pose questions. If there is the same sort of trouble rushing around to get the data to the patent agent close to the PhD defense -- too bad, the PhD defense takes precedence and the agent should just do the best job s/he can and get an application on file in time.
123	I believe the policy provides adequate protection.
181	Student scholarship is not impeded albeit some commercial potential may have to be dealt with during the process.
14-F	L'industrie comprend bien cette condition et y adhère. une demande pour présentation ou examen sous sceau de confidentialité n'est cependant pas à exclure.
23-F	Le mécanisme leur permet de publier les résultats de leur recherche. La politique ne leur permet pas de soutenir leur thèse en public dans tous les cas. Mais c'est toujours faisable à huis clos et par conséquent, cela ne retarde pas l'obtention du diplôme.
27-F	Il ne faut pas oublier de prendre aussi en considération les politiques propres



	aux universités. La politique de PI du CRSNG est complémentaire à celles-ci.
31-F	Je crois que certaines universités tolèrent des délais raisonnables de soutenance pour permettre une protection
34-F	Ce sujet est traité très rigoureusement dans notre institution et elle est balisée par les contrats de recherche que nous concluons avec nos partenaires. Nous agirions ainsi même si la politique du CRSNG était plus souple.
	Vice-President, Research/ Office
8	Yes, but in many cases, like the lack of copyright and IP protection as well as clear policies for authorships and publications for students are barriers for completing theses and / or publishing.
11	I just think the policy is very grantee friendly and so does protect them.
87	The delay in publication is not a serious issue either for defending a thesis (can be done under a confidentiality agreement with examiners) or publication (with the time it takes to get papers prepared and published, a delay of even up to 12 months, is not a serious issue in the vast majority of cases). I can imagine with some students with a very hot discovery, they might be anxious getting the paper in press as soon as possible to further their academic career and thereby come into conflict with an IP protection or commercialization effort.
92	Not sure that the rights of the supervisor are as well served. Students join ongoing programs and their program can encumber significant IP that should be shared with their major professor. We try and deal with this on a case by case basis. This is cumbersome.
119	Have not had to deal with this as of yet.
130	The policy is clear and fair.
145	It brings the needs of students to the forefront.
151	Delays are allowed only within the university guidelines.
182	In certain cases, closed defenses on certain aspects of the thesis are necessary because IP has not yet been protected. We have public defenses.
12-F	Notre politique est claire à cet égard
18-F	Tout comme la question 13, je n'ai jamais eu connaissance d'étudiants qui ont du à retarder leur soutenance ou la publication de leurs résultats. J'ai déjà vu un cas où une soutenance devait se faire rapidement (étudiant qui avait trouvé un travail) et le partenaire n'avait pas eu le temps d'évaluer si les résultats renfermaient des éléments potentiellement commercialisable. La soutenance a été faite en huis clos. Cela est très rare.
25-F	Voir 13.
26-F	Aucun délai n'est prévu pour la soutenance d'une thèse.
	PRIVATE
1	The policy needs to ensure that students are in way precluded from completing their thesis and publishing any arising work. This again can be done if these issues are reviewed and dealt with while the project is in progress and that industry has sufficient opportunity to protect IP before the thesis becomes public and publication is made. Faculty who supervise students need to be made aware of these issues and be made responsible for ensuring that any students under their supervision is not prevented from publishing a thesis in whole or from publication of results of the work.
3	Not much to say. The policy clearly states that industries cannot stop forever



	publications and use of the IP for academic use.
4	I don't believe that Industry is too concerned about what is published in a thesis or elsewhere provided that Industry could review the work before it is released. As I had previously stated, in my experience, I have not seen any material that would compromise the IP.
5	The student continues to receive any rights attributed to inventorship. Having students derive economic benefits would however be extreme.
6	I believe the agreement protect the student right to publish thesis. The agreement gives the right to the grantee (not the student), who can decide on the publishing right.
29	The rights of students are strongly protected with the current policy.
31	It's written from the students' perspective.
32	The statement about student publications and theses defense is clear.
45	We have not encountered any problems with the policy.
49	The only problem I can see here is that sometimes we need to make sure that the thesis defense is conducted under terms of a Non-Disclosure Agreement and thesis publication is falling under 6 month publication review policy.
52	We would never suggest a student be put on a project where there was a potential for a long delay prior to their thesis defense.
53	The intent in the policy is clear; students must be able to defend their theses, and publish, as authors/co-authors in papers. Misunderstandings in industry tend to arise since most industry staff does not properly understand the role of grad students in the PI's research team.
55	I have no knowledge whether the policy is a significant restriction on the students but would be surprised if it proved to be so.
56	A thesis can always be defended and the thesis quarantined to ensure the benefits are realized. A student might like to publish papers if publishing papers is the touchstone of success instead of innovation (getting ideas into practice). If we continue to hold papers up as the key to academic success, instead of having impact, then we will continue to create a paradox for success. NSERC might like more aggressively to encourage graduating students to take their ideas to industry and get the impact before the publication. That could be novel and contribute to creating a climate of innovation instead a climate of publication. Time to innovate in how we support innovation.
58	I think it does so long as the students supervisor hold the industrial partner to it and ensures the student fully understands the benefits and trade offs of being involved in an industrially funded project. I think this is occasionally neglected, students in these programs can not pull all nighters to get posters completed for conferences, they must have the presentation and therefore the research in it completed many weeks in advance. However, being in a well funded group typically means that funding is available to travel to good conferences and to buy good equipment.
65	Thesis publication has never been a problem in our experiences.
67	So long as all parties agree up front, projects receiving funding from the Canadian taxpayers though NSERC must provide a clear path for dissemination of results by students or other researchers.
72	The policy sufficiently protects its grantees, no doubt, but in some way acts as barrier to the further investment of the industrial partner.



79	I think it works for students.
96	Not sure of the complete question for this.
102	I think the time frame is too narrow. I would make it one year for the student.
105	The policy doesn't allow for delays in the case of a thesis presentation correct?-see above RE: publications
110	With the possibility of have a confidential thesis the student the penalty for the student is minimized.
114	As with the grantees, students receive highly beneficial treatment in the current policy, certainly trumping the interests of any industrial sponsors.
125	I do not see a problem for students.
126	Hard to say if policy protects students. Certainly from the company perspective one key goal is to always consider the needs of a student's program and to make it clear up front what conditions we require, so everyone understands the situation. This way students can meet requirements of their program and also be able to initiate their publication record (which is key to their career development/advancement).
129	This area likely needs some more teeth. Unfortunately students are sometimes exploited by supervisors who are keen on commercial activity and or working with industry. Again, the technology transfer office needs to be vigilant about this issue but more rigors in the policy would help.
132	Sounds like it should.
133	These rights are specifically entrenched in the policy.
139	In over 14 years of University-Industry collaborative project history I haven't seen an instance when a student had an issue with publication or thesis with our company (don't know about other partners). Assuming the industry really has an assigned person co-supervising the student (as per NSERC rules) it is hard to imagine how the student's rights could be not protected.
140	I believe the students are reasonably well protected, although it is not always clear who owns the IP, i.e. is it the student or his supervisor.
154	The protection of the student's rights has little to do with the risk of the policy to the small industrial partners' IP rights.
167	The protection is so good as to impede signature of IP agreement.
172	Publication should not delay 6 months.
174	Provided the content of the thesis can be held confidential for a 6-month period after the defense.
176	Adequate
177	We did not have any problems with this part.
11-F	Présentement l'étudiant a un délai très court pour publier
20-F	Je ne suis pas au courant du genre de protection dont les étudiants disposent.
PUBLIC	
21-F	A part la restriction de publier des informations confidentielles appartenant aux partenaires ou encore des informations pouvant contraindre l'exploitation commerciale des résultats, rien n'empêche la publication des thèses et/ou articles scientifiques. Il suffit également d'utiliser le mécanisme de la protection par brevet de façon efficace.

27. À votre avis, la Politique sur la propriété intellectuelle du CRSNG devrait-elle permettre la cession des droits de PI?



Oui
Non
Dans certains cas

28. Veuillez indiquer au moyen d'un crochet les différentes situations où la politique devrait permettre la cession des droits de PI.

- La capacité de commercialiser la PI serait mise en péril
- La capacité d'attirer le financement initial serait mise en péril
- Le cessionnaire éventuel est une petite et moyenne entreprise canadienne (PME)
- Le cessionnaire éventuel est une entreprise canadienne en démarrage
- Le cessionnaire éventuel est une entreprise canadienne
- Le cessionnaire éventuel est une entreprise étrangère qui n'est pas présente au Canada dans le secteur de la fabrication et/ou de la recherche et développement
- Le cessionnaire éventuel est une entreprise étrangère qui n'est pas présente au Canada dans le secteur de la fabrication ou de la recherche et développement et on n'a trouvé aucun cessionnaire canadien approprié
- Le cessionnaire éventuel est un partenaire dans des activités appuyées par une subvention de recherche concertée université-industrie
- On veut permettre au titulaire d'une licence d'intenter des poursuites pour violation de droits de PI
- Les droits de PI appartiennent à plusieurs titulaires et la cession en facilite la gestion
- Un partenaire fournit un investissement en espèces pour le développement de la PI
- L'université et/ou le chercheur pourrait bénéficier de retombées économiques
- Autre (veuillez préciser votre réponse ci-dessous)

N°	Commentaires (indiqués dans la langue du répondant)
	UNIVERSITY
	Professor
64	I don't see any compelling reason to exclude any situation as a matter of policy. Each situation can be negotiated on its merits.
	Industry-Liaison Office/ Technology Transfer Office
12	All of the above options are very good reasons for assignment. My concern is that allowing assignment in any set circumstance will result in assignments being required by VCs and other investors as a condition of investment. I recommend that a broad assignment ability be put in place, however that it be subject to approval by a third party organization such as NSERC, or perhaps ACCT Canada. That way, universities can't be brow beaten by start-ups or by investors to assigning IP.
14	Il believe the only exceptions should be where it can be demonstrated that the institution is receiving full fair market value for the entire value of the IP or where the IP is jointly owned with a company who paid for the development. Although in this second instance I believe that institutions should make certain that joint IP is clearly defined and adequately compensated for in these instances.
35	Any of these might apply. Policy should be no assignment unless permitted by NSERC who could then decide on a case by case basis. NSERC would have to establish some form of evaluation body to consider these cases. Unlikely there would be too many of these each year.
40	Research & educational rights must always be protected. NSERC should develop a clear policy on university ownership as approximately half of



	Canada's universities have faculty ownership, the rest have the university having the right of first refusal. There is no way that a university can police it faculty especially as many of them move to other universities and out academic institutions all together
46	Where there is joint inventorship and the Canadian contribution is minimal. Practically speaking, it may occur whenever the amount of money and prestige of the announcement is large. In other words, for enough money, principles fall by the wayside.
98	In all cases, the appropriate financial compensation (i.e. upfront licensing royalty) must be provided to the university in exchange for these rights.
14-F	Les industries font de plus en plus face à la compétition. Dans certains cas, leur expertise est bien développée et leur implantation dans le milieu ne fait aucun doute. Il vaut alors mieux faire cession tout en négociant une licence non-exclusive pour recherche et peut-être un droit de regard à l'institution et son chercheur, sur la recherche externe à venir visant le développement de la technologie.
	Vice-President, Research/ Office
119	Unsure
130	Difficult to generalize a specific situation, for example. The best would be to allow this based on the best judgment and **AGREEMENT** of *BOTH* the 1) UNIVERSITY and 2) INVENTOR(S). I had IP that a Korean company was willing to buy through assignment, and pay both the university and inventors. Because the University could not accept that, this deal was never concluded. To date, the IP remains unused, ending into a loose-loose situation. Assigning the IP to the Korean company would have been a compromise, but better than a total loss.
12-F	Dans la mesure où l'université aurait la garantie que l'entreprise en démarrage rencontre des jalons de développement intéressants sur une période de temps assez longue, par ex. 4 ou 5 ans et que l'université reçoit un dédommagement sous forme d'éventuelles redevances sur les ventes de produits. La raison principale pour ne pas céder la propriété dès le départ est que les entreprises en démarrage font souvent faillite et leurs acquis sont l'objet de saisies (incluant la PI). Les investisseurs institutionnels (Fonds divers) ne savent souvent pas quoi faire pour valoriser cette PI et donc peuvent la brader à bon marché (possiblement à des intérêts) ou laisser la PI dormir sans être valorisée. Par ailleurs, les grandes entreprises se sentent moins menacées, demandent rarement la PI, et une licence exclusive etc est souvent leur seule demande.
	PRIVATE
176	One area not addressed here is that IP should NOT be assigned to university inventors who are doing their own start up. There is a trend where there is a wholesale transfer of IP to university professors setting up their own companies. I don't think NSERC or any Canadian funding agency should be funding research with the purpose of enriching academics. The IP created in this case should be licensed to third parties. If it's not then there is likely no market for this IP.
	PUBLIC
144	Of course, there are many more reasons that may justify assignment of IP ownership to an industrial partner (perhaps with part interest being retained by the actual researchers), (another) one of which is to ensure proper protection of the IP. Commonly, the universities' budgets for IP protection are limited, but if



an industrial partner (and the researchers) has an actual interest to a particular set of IP, they would be more diligent in protecting same. Now adding the resources of the industrial partners, more IP can be protected and arguably better protected, and if we restrict preference of assignment to Canadian partners, I believe that this would be overall a beneficial approach in favor of the Canadian economy; ability to commercialize the IP would be jeopardized.

29. Les projets concertés reposent fréquemment sur la PI d’amont d’un partenaire. Selon la politique actuelle sur la PI du CRSNG, une PI d’aval qui a été développée uniquement par un chercheur appuyé par le CRSNG et qui représente une amélioration à la PI d’amont du partenaire reviendrait à l’établissement, au chercheur ou aux deux. Est-ce qu’une telle PI d’aval, qui représente une amélioration à la PI d’amont du partenaire, justifie à elle seule la cession des droits de propriété de l’amélioration au partenaire?

Oui

Non

Dans certains cas (veuillez expliquer pourquoi)

N°	Commentaires du répondant à la question 29 (indiqués dans la langue du répondant)
	UNIVERSITY
	Professor
43	Depending on several factors
57	Flexibility is valuable.
59	Each case will be a judgment call in terms of the contributions made by each party. My preferred position would be for IP developed in NSERC funded projects to be subject to the NSERC/university policies about ownership with the ability of the company to have first rights to an exclusive license
60	To be negotiated on a case by case basis.
101	This should depend on factors such as the relative significance of the foreground and background IP and this decision should be made by universities.
103	Same conditions as I checked off in the previous list.
111	Only under special conditions as noted in previous questions.
116	Depends on relative IP contributions
137	The proposal should clearly identify whether or not there is an intention to the assignment, and in such case there should be a negotiated process to assess the value and of the foreground IP and provide benefit to the public to offset part of this value.
148	This should be a joint ownership/assignment between the parties after negotiations.
180	It depends on how interactive they were in the project and will it have any negative impact on research student or PDF.
01-F	Quand l'amélioration est marginale.
	Industry-Liaison Office/ Technology Transfer Office
12	All of the above options are very good reasons for assignment. My concern is that allowing assignment in any set circumstance will result in assignments being required by VCs and other investors as a condition of investment. I recommend that a broad assignment ability be put in place, however that it be



	subject to approval by a third party organization such as NSERC, or perhaps ACCT Canada. That way, universities can't be brow beaten by start-ups or by investors to assigning IP.
14	I believe only where the industrial partner is a co inventor of new IP and where the circumstances are such that they have paid full market rates for the IP. Essentially only in very limited circumstances.
26	If the company background IP leads naturally to the foreground IP then assignment to the company should be permitted
36	The assignment of IP should be subject to payment in full, and the right of the university to publish its research methodology and results, use its work for research, educational, and other non-commercial purposes, including collaborative research with third parties. If NSERC is to permit such IP assignments, then care must be taken in drafting this new language on the reservation of rights.
40	It is impossible to for see all of the combinations of circumstances in advance but this should be a negotiated exception.
62	To be clear: The foreground IP that is an improvement of background IP that is solely owned by the partner should be assignable. If it is an improvement of jointly owned IP i.e. university has some patents and partner has some patents and the foreground IP is an improvement of both then automatic assignment to the partner of improvements should not be allowed.
66	It would be crucial under this scenario that some of the funding to develop the foreground IP was received from the company that held rights to the background IP.
123	You may not need to assign in all cases. You could agree to provide a non-exclusive license at no charge (depending on the circumstances).
170	Improvement is clearly defined (as IP that infringes on the background IP). Economic returns are made to the University/researcher for any commercial use of the foreground IP, whether on an exclusive or non-exclusive basis.
14-F	Il ne faut pas minimiser l'apport initial du partenaire. Ce dernier est d'ailleurs en droit d'exiger une licence pour utilisation de sa PI ce qui n'avance pas le chercheur dans son libre développement de la PI aval. Il vaut mieux consolider la position du partenaire (et de sa part de marché) en retour d'une licence non-exclusive à l'institution (voir réponse précédente).
23-F	Si la PI d'aval ne peut exercer sans la PI d'amont, les possibilités pour l'Université de la commercialiser sont nulles. Par contre, l'université devrait garder un droit de l'utiliser pour des fins d'enseignement et de recherche. Par contre, si la PI d'aval peut être utilisé également sans la PI d'amont, pourquoi céder les droits?
27-F	Il est parfois difficile de quantifier la plus value que représente une amélioration, et c'est parfois impossible pour des produits complexes et des marchés pointus. C'est l'ensemble du contexte qui peut justifier la cession d'une PI d'aval.
	Vice-President, Research/ Office
8	It really depends on the type of IP and what are going to be the next steps. THERE MAY BE A POSSIBILITY OF JOINT OWNERSHIP IF AND ONLY IF THE RESEARCHER WILL NOT BE LIMITED IN THE possibility to continue his/her research and to use the research to continue develop in other areas (e.g. development of a material for use in the mining sector for the collaborative project but then once completed, based the these results, development of a new



	material (improved from the first one) for the forestry sector).
11	Exactly; this is hyper complicated and flexibility is the key.
61	There should be more flexibility to negotiate this as contributions of fore and background IP can be murky...and this could be an impediment to collaboration.
83	Normally exclusive licensing arrangements can be made before research begins that make IP assignment unnecessary. However, there may be circumstances where assignment is the most appropriate way of dealing with the issue.
86	This really depends on the history with the partner and other potential benefits that might be gained through transfer of the IP.
92	Again this is a question of balance. We also have concerns that partners will encumber the IP our researchers bring to the partnership.
119	Unsure
130	Again, very difficult to generalize, and a case by case decision is needed, based on the best judgment and agreement of the university and the inventors.
145	This would be based on an assessment of the relative value of the background IP provided by the partner and the value of the contribution by the University.
182	Depends on the level of the partner intellectual contribution during development of the foreground IP.
12-F	Tout dépend de la contribution effective du partenaire et de l'ampleur de la nouvelle PI.
18-F	Si la PI en aval crée par le chercheur ne renferme pas de PI qui appartient au chercheur ou à l'Université (PI antérieure ou background IP). En aucun cas, le chercheur ne devrait utiliser de la PI antérieure appartenant à l'université (ou à lui) s'il est prévu que la PI créée sera cédée au partenaire au terme du projet.
25-F	Voir question 19.
	PRIVATE
1	If the industry partner has the means and will to exploit the IP and a grant back is made to the university to ensure publication and continued use for academic/educational purposes is given.
4	I not sure what is being asked here.
42	With appropriate payment terms to reward NSERC and the university for the initial investment
45	Yes, this should be assumed as the starting point for discussions, but there are likely exceptions.
50	Not sure, but I'm sure it's not black and white.
55	Conditions will vary greatly and certain situations may warrant special considerations. However, assigned rights must protect national interests and must preclude the company's ability to achieve a windfall profit and loss of the IP to foreign interests or to situations where a Canadian firm can utilize an offshore tax haven to maximize profits to the detriment of Canada.
95	If there is no clear definition or delineation between the foreground and background IP, then similarly it would be difficult to assign the IP rights to the foreground work exclusively to the partner or the institution.
102	Dependent upon the agreement between the two parties.
110	Ownerships goes to the ones that make the discovery, however I do not see any advantage for the university to become a competitor with a former collaborator, so in a case of improvement a policy where the «droit the premier refus» is incorporated in the case of an improvement could be allowed.



122	The foreground improvement would probably have never taken place if the Researcher wasn't working with the Partner & his background work as a result the Partner should have some ownership in these developments.
126	Depend on how fundamentally unique the foreground IP is. If it is an obvious improvement the background IP should hold sway.
127	Assuming that the IP is public knowledge (e.g. patent or patent application), then anyone is free to improve on that IP position with their own IP filing. I would expect that the partner would need to bring more to the collaboration than an idea based on the existing IP - e.g. supporting funds.
129	If there are conditions per previous sections in the survey where commercialization would be prevented or slowed. Often the university could not commercialize the piece of IP on its own as the background IP is required to practice the art or there would be infringement issues. Handing it over with no compensation or play for commercial exploitation however should be avoided.
133	The NSERC support of work to improve on background IP should be limited to IP from Canadian companies.
139	Parties should be free to negotiate IP rights in advance of the project based on the objectives for the end product, however whatever the final agreement, assuming NSERC is contributing with funds the university should be allowed to keep a license to the developed foreground IP for R&D purposes and should be allowed to publish (after the industry review)
174	First, it should be at the discretion of the two parties. If access to the background IP is required in order to practice the foreground invention, it would make sense, at least in some instances, for the foreground IP to be assigned to the partner. If the foreground IP had other applications, this could be held separately.
176	This is clear because it depends on inventorship. If the improvement is solely created by NSERC-funded researcher, then that is where inventorship rests. However, the contract with the partner should dictate assignment, and needs to be negotiated on a case by case basis.
177	Depends on the contribution of the partner in terms of money, effort and prior IP used.
178	Only if doing otherwise would jeopardize commercialization
11-F	Si La PI d'amont est bonifié de façon à en augmenter la valeur avec celle d'aval ma réponse est oui. L'inverse est une PI partagée.
184	Partner background IP will dominate any improvement IP. An agreement customized to the situation is warranted.
PUBLIC	
144	Again, many factors come into play which could include the nature of the foreground IP and the extent of contributions (monetary and otherwise) of the partner towards the development of the foreground IP. In one sense, if the foreground IP is useless by itself without the background IP, and vice versa, it may not be sensical for different entities to each hold onto one piece and risk the owners holding each other ransom for the life of the IP.
179	In most cases my answer would be NO, since the new foreground IP does not diminish the value of the background IP and may be adaptable and useful for other IP as well (not just the background IP). Unless there is no other potential application for the solely developed foreground IP, the NSERC funded researcher/ research institution should retain ownership and rights to license to



other parties.

30. En cas de cession de droits de PI appartenant à une université et/ou à un chercheur, faut-il absolument délivrer une licence à l'université et/ou au chercheur à des fins universitaires, notamment pour l'enseignement?

Oui

Non

Dans certains cas (veuillez expliquer pourquoi)

N°	Commentaires du répondant à la question 30 (indiqués dans la langue du répondant)
UNIVERSITY	
Professor	
43	Depending on several factors.
57	Flexibility is valuable. This should be negotiable.
60	As long as it does not compromise commercialization, such as via a spin-off company.
07-F	Dans tous les cas ou l'université y voit un intérêt.
16-F	Je dirais, pas absolument. Dans les cas où le domaine de recherche majeur du chercheur serait en cause s'il devait se voir refuser le droit de poursuivre ses travaux suite à la cession de PI, il faudrait prévoir une telle licence pour l'enseignement et la recherche.
Industry-Liaison Office/ Technology Transfer Office	
66	Where such a license would not jeopardize a company's ability either to attract capital or exploit the research results.
Vice-President, Research/ Office	
11	Under most conditions; there might be reasonable exceptions.
61	We need to adopt a flexible approach. In some cases the university would have no interest in licensing back the IP product etc.
87	Would be useful under some circumstance for training of HQP purposes.
PRIVATE	
56	If you trust people.....act accordingly. If you don't trust people, and/or don't want to undertake the steps to create trust and collaboration, then do what you must. Fear is what keeps most of us from acting boldly when acting boldly good bring greater returns than trying to protect oneself with all kinds of paperwork. It is time to decide whether we are going to be innovative or function out of fear of the worst.
126	Depends on how fundamentally unique the foreground IP is. If it is an obvious improvement the background IP should hold sway.
149	Only if there is a high likelihood of pursuing further academic research in the given area.
154	The key word is researcher owned. If clearly owned, it is not a refinement of a partner's concept. If there is a question about ownership, it should be agreed that even any improvements are licensed to the researcher. However, an improvement does not grant a license to the basic IP. Such an improvement should be of use to the general public in the application of the original concept.
25	Left no comment.
55	If a company's background technology has been used and/or the company has



	funded the research it may reasonably expect to obtain a restricted royalty-free license.
95	If there is no previous agreement established as to future academic/educational use of partner controlled IP, then perhaps a license will protect the university's ability to use the IP for academic/educational purposes.
114	It depends on the sensitivity of the background IP. An industrial partner may share background IP, including confidential information, with a university to help progress research, but the intention is certainly not to lose control of that proprietary asset.
138	In most cases yes. However, there should be the flexibility to not have an automatic license in cases of high TRL projects.
140	In general, I think it would be appropriate to have the option to license the IP back to the university/researcher to ensure that they are able to fulfill their academic requirements and/or to continue to develop the technology. However, I would suggest that this be done as a collaborative effort with the sponsoring industry organization.
63	Strongly recommended, rather than required. In some cases business issues may warrant exclusion of such a license from the contract.
184	Yes, for educational purposes. Academic purpose – what is this? We never know where the technology will be used and for what purposes.
11-F	Ma réponse est oui mais les parties sensibles a la confidentialité on besoin d'être protégées
	PUBLIC
144	Superficially, I would say yes and maybe more so importantly for the researchers to retain right as opposed to the institution per se. That said, definition and scope of academic and educational purposes are often ill-defined especially when confidential information or trade secrets are involved.

31. Si des droits de PI sont cédés à une entreprise et que la commercialisation n'a pas lieu dans le délai prévu, les droits de PI devraient-ils retourner à l'université et/ou au chercheur?

Oui

Non

Dans certains cas (veuillez expliquer pourquoi)

N°	Commentaires du répondant à la question 31 (indiqués dans la langue du répondant)
	UNIVERSITY
	Professor
57	Flexibility is valuable. This should be negotiable.
59	This should be a condition negotiated and written into licensing agreements
101	This could depend on many factors, such as the appropriate time frame, the credibility of the company in questions, etc., and universities should be free to make this decision.
16-F	Ce serait à négocier avec le partenaire industriel. Mais ma compréhension est qu'il n'est pas facile d'estimer à l'avance le temps que prendra la commercialisation d'une technologie. Cela peut prendre des années, en fonction de plusieurs éléments souvent hors du contrôle du partenaire industriel.



Industry-Liaison Office/ Technology Transfer Office	
19	Assignment agreements should have milestones (like a license).
36	This is very difficult to do in specific cases, and would be extremely difficult to describe clearly in a policy or model agreement. To operationalize in contracts, it requires a precise understanding of when commercialization has not occurred, such that there is a clear trigger for the re-assignment of rights. If the policy requires re-assignment where no commercialization occurs, but is vague as to the transfer point (as I suspect it must be) then this contentious and difficult to define issue will have to be addressed by the negotiators for both sides.
62	Once ownership is assigned to a company, it could only be reassigned back if the company wants to do so - not sure how universities could ensure the 'reversion'. It would be better to link the initial assignment of IP rights (perhaps going through joint assignment?) to the company reaching specific milestones e.g. raising capital, market launch etc. Until that time an exclusive license should suffice in many cases.
66	A delay should be specified but flexibility should be built in if mitigating circumstances exist.
2-F	Si la PI en aval peut s'appliquer à une PI en amont qui n'appartient pas à l'entreprise.
14-F	Il est toujours difficile d'établir à l'avance les délais car les fenêtres d'opportunités commerciales sont imprévisibles. On devrait toutefois s'efforcer que le droit à l'institution puisse s'exercer (grant back) en faveur d'un autre partenaire dans un secteur actif indépendamment de la performance du collaborateur initial.
23-F	Oui mais cela serait-il réalisable dans le cas d'une société d'essaimage fondée sur la PI cédée? Les investisseurs dans une société d'essaimage seraient les premiers à avoir des droits sur la PI cédée à la société. C'est la raison pour laquelle ils exigent que la PI appartienne à la société. En cas de faillite, la PI est un des seuls biens de l'entreprise sur lequel ils peuvent espérer récupérer une partie de leur investissement.
27-F	Oui si l'Université et le chercheur y voient un intérêt et cela est généralement identifié assez tôt.
Vice-President, Research/ Office	
11	Depends on how much money has been ploughed into the activity by the company.
30	All depends upon the research and the field it is in. Each research has different circumstances and each needs to be taken into consideration on how to proceed and when.
38	A case by case basis to determine whether it would be better for the IP to stay with the company or revert back.
61	This should be negotiated on a case by case basis. If a company cannot commercialize the product is often for a good reason...and universities are not necessarily in a position to do any better.
25-F	S'il ne s'agit que d'un court retard justifié tôt dans le processus: non. Sinon, se serait préférable. Toutefois, la question corollaire: les universités et chercheurs doivent-ils devenir des gestionnaires et vendeurs de PI? J'aurais tendance à croire que non, car cela s'éloigne de la mission universitaire.
PRIVATE	



6	The reason for the delay must be given first before reverting the IP right to the university and/or researchers.
56	It depends on the reason for lack of commercialization in the timeframe. If the academic research was so far off the mark in leading to commercialization and the commercialization effort requires decades and mega-dollars, then one has to understand. If the industry was merely sequestering the research to protect their existing product, then yes, yank it back...but then that should have been apparent early.
79	Depending on what was done with the IP and what type of advancement was made during the time
122	It depends on the situation the Company may have every intention of commercializing the invention but requires some market conditions to change or further development to be completed prior to commercializing it. Going to market too early may prevent eventual success of the invention. My experience is the Researcher grossly under estimates what is required to successfully commercialize something.
127	While this is a good idea, there will have to be some flexibility in this policy since the time to commercialization will depend on the amount of work to be done to convert the data, models, material, etc that is the basis of patent or patents into a product. The time to development can be dependent on the industry as well.
153	Should be negotiated.
25	Left no comment.
29	The industrial partner must continue to demonstrate an active development/commercialization program.
32	I can see the reasoning behind this statement, but commercialization may not occur for years and so the enforcement of this policy would be very difficult. It would be better to remain silent on this in the NSERC policy, but prepare a list of suggested licensing terms where this could be negotiated between the university/researcher and the company.
42	If the company acquires the IP on commercial terms, no reversion rights should exist. One could consider negotiating a right of first refusal on the subsequent sale. As with bankruptcy, the IP forms part of the assets of the company. The investor should have the ability to at least recoup some of his losses through a sale. If the IP is worthless as indicated in the issue statement then it would be inexpensive for the University to regain the rights if it wanted.
45	This would have to be addressed on a case by case basis as there may be legitimate reasons for the delay. Nonetheless, it is reasonable to assume that the IP would revert back to the University/researcher if not applied within a fixed period of time.
52	In some instances a company may wish to prevent their competition from access to this IP. If the assignment fee is high enough, the university should accept this outcome. On the other hand if a company can't muster the resources to commercialize the technology, the university (or researcher) should regain ownership.
53	Certainly for fields of use outside the partner firm's primary focus, depending on how broad the IP assignment was in the first place. The challenge would be to decide upon what constitutes a reasonable time frame. Investment decisions change all the time, and often simply defer implementations, not cancel them. Any approach that looked like it was intended to open it back up to all players in



	the original field of use would appear to the company as if they would be threatened with losing the IP to their direct competitor(s), who invested nothing in the original research collaboration.
95	If it can be demonstrated that the delay in commercialization is the result of negligence or lack of want by the company, then the ownership should revert to the research institution. Having said this however, it would be extremely difficult to prove lack of intent for the commercialization of IP.
121	Depending on agreed upon timeline.
138	Yes, but the delay would have to be sufficiently long to permit Industry to decide whether it will use the technology (e.g. 5 years as this is the time it takes to develop new programs) and commercialization would have to be defined broadly to encompass simple use.
140	Potentially - it depends on the circumstances.
160	This is probably something that can be developed, it seems a reasonable compromise to ensure that the IP gets developed.
162	The university should have the right to negotiate a reasonable time period for commercialization and the option to revoke the assignment if this time period is exceeded so they can negotiate with other potential assignees.
174	As long as this is agreed upon at time of assignment, and there is a mechanism to deal with unforeseen delays.
63	If the term for commercialization is reasonable based on real life consideration of what is involved in launching a product.
184	If we (the company) have an exclusive right to the technology and we "sit on it", yes. However, if the company retains a royalty-free, non-exclusive right to use it internally, no. In this case, the university still has the right to license elsewhere. It would never revert. In any case, this would need to be specified in an IP agreement.
PUBLIC	
41	Must be very clearly separated from company's Background IP. If the Foreground IP is based on the Background IP, then under most conditions the ownership assigned should be perpetual.
109	This is reasonable. It would prevent acquisition of IP by a commercial entity whose sole objective was to prevent competitors from using it.
144	Whilst this is a reasonable concept, legality-wise, I am unsure of its practicality in that once a piece of property is given away, the new owner essentially can do or not do with the property, and any strings that may be attached with the initial act of giving may not be valid or enforceable (cf: doctrine of merger in sales etc.).
179	The University as owner should be required to join the infringement action if it is a case of defense, i.e., some third party is suing and the university's licensee is defending. Otherwise, the university may join, but should not be required to do so.

32. Dans le cas d'un projet concerté, une contribution en espèces versée par un partenaire industriel justifie-t-elle à elle seule l'octroi de droits de PI conjoints à l'égard de la PI d'aval développée uniquement au cours du projet par un chercheur appuyé par le CRSNG?



Oui
Non

Dans certains cas (veuillez expliquer pourquoi)

N ^o	Commentaires du répondant à la question 32 (indiqués dans la langue du répondant)
	UNIVERSITY
	Professor
16	Collaboration means more than cash. If a company makes a small cash contributions and does not support the researcher in any other way than it might not be enough ground to justify ownership. Of course, joint ownership can be in different ratios, not necessarily 50%. Over all I would incline more for yes than for no.
21	Yes if the project is negotiated upfront and is the object of a research contract with no public funding, and provided the researchers are fully aware of consequences.
28	This must be agreed between the researcher and sponsor ahead of time.
43	If some of the IP could not be developed without intellectual input of the partner.
59	This depends on the exact nature of and participants in an invention.
101	This should depend on other factors that weigh the relative contributions, including in kind contributions and this should be decided by the university.
116	Relative amount of funding, other background contributions and relative contribution to foreground IP need to be considered
120	Substantial amount of cash in comparison to the total cost to develop the IP.
137	It depends on whether the development was facilitated by the cash contribution, or if it was enabled by the cash contribution.
141	Depended on the amount of cash the company put in the project
180	Only if their staff are heavily involved in the project. Cash alone is not grounds.
17-F	If this facilitates dissemination. Commercialization itself is not the goal: putting the research into use is.
7-F	Une contribution normale justifie des droits de premier refus. Une contribution plus importante en espèces ou en nature pourrait justifier l'octroi de droits de PI
	Industry-Liaison Office/ Technology Transfer Office
12	See my answer to question 28. Same applies here. In addition, ONLY if the cash contribution is enough to cover a very significant amount of the total project costs, including full overhead, and the future anticipated value of the IP.
19	Would depend on the level of contribution.
62	Yes, however should depend on the amount of contribution though (what % of total)
74	Depends on the level of contribution and expectations of the partner for this contribution.
181	The cash investment must contribute to the development of new IP and the ownership of the IP should rest with the developer. The investor may then acquire commercialization rights (and perhaps assignment) if so stated in the investment contract/relationship.
	Industry-Liaison Office/ Technology Transfer Office
11	Black and white, for me, is not an IP color!
38	Could depend on the size of the cash contribution.
61	There needs to be an agreement in place...not automatic.



130	Joint ownership should be based on the percentage of financial contribution. It is not reasonable to expect that a company that only contributed \$5k to a \$100k project would own half of the IP !
145	How much cash and what proportion of the cost invested to date should be taken into consideration.
24-F	S'il y a entente préalable
25-F	Voir 19.
	PRIVATE
3	The level of cash contribution will certainly be a factor here. But I think universities should consider joint ownership. In many cases, NSERC will probably attain its goal even more – i.e. compete technology transfer and commercialization and successful positive impact to Canadian economy.
5	Depending on the percentage of the contribution, this could be a basis to justify joint ownership. Again, as pointed above. The industry partner can regulate where and how much funding is provided depending on the IPR risk associated with the university obtaining NSERC funding.
56	It depends on the level of the cash contribution and the intellectual input brought by the industrial partner to help the academic researcher hit the target of impacting research. Note that you talk about IP!!!!!!!!!!!!!! But IP is not impact!!!!!!!!!!!!!! Be sure you have clarity in what you are talking about. We don't need a lot of IP with 2% of it having impact.
127	It would be necessary but maybe not the only condition that would have to be satisfied for joint ownership. Such things as funding level, benefit to university, rights retained by university, benefit to Canada, etc.
154	If the cash donor has not contributed a base technology, then there should be some other incentive for the donor than IP ownership –like testing of his methods or application to his problem. If the donor is a research/technical collaborator and owns related technology to the IP in question, then he would be foolish to not maintain ownership of improvements developed at his expense.
177	The cash contribution would entitle the industrial partner to some fraction of ownership. The fraction would be related to the value (cash+effort) of the contribution.
32	If the cash contribution is significant relative to the NSERC contribution, this may justify joint ownership.
45	In most cases, Yes. In my experience it is seldom that collaborative projects just involve a cash outlay by the sponsor. There is usually an on-going effort to guide the work that results in IP that has been jointly developed. It is often very difficult to separate the contributions of the sponsor and researcher, a fact that most researchers we have dealt with readily acknowledge.
50	Not sure, but we have to be careful that we don't hand over anything and everything for bargain prices. If the company only needs to pump \$1k into every research project that happens in their field to have access, they could easily do that without providing meaningful support.
102	Depends on the agreement between the researcher and the Partner.
160	Cash is not necessarily the only determinant of a right to ownership. Simple access to state of the art information may in fact be more valuable in stimulating and accelerating research.
162	Should be related to the size of the cash contribution.



172	Depends on how much over and above direct costs are covered by cash contribution. If all costs are recovered then IP should belong to sponsor.
174	Two important issues to consider: first, who had intellectual input into the invention – one party, or both? In a collaborative project, how often is IP developed solely by one party? Second, could the invention have been made without the partner’s contribution to funding?
178	Every case must be scrutinized individually
63	What is needed is the flexibility for each case to be decided on its unique details. i.e., for contracted research, perhaps this is a reasonable expectation. However, this would not be a partnership or a collaboration, in such case, industry would clearly be established as a customer. For true collaboration (lab work conducted by both partners) our organization follows a model which is that ownership is based on inventorship and the remainder (control) is decided by license rights. For examples, perhaps for a significant cash contribution, a grant back to industry of an exclusive FOU license would be reasonable, or for a minor cash contribution with contribution of know-how and confidential information, the same grant back.
184	Joint development = joint ownership. Cash contribution from a company does not equate to joint ownership
10-F	Je pense que l’on devrait prévoir que le partenaire augmente sa contribution en espèce (ex. : le partenaire industriel devrait assumer en partie les frais indirects de l’université reliés au projet sur la partie subventionnée) pour trouver une juste compensation financière à la cession des droits de PI et compte tenu que les nouveaux PI repose sur le PI en amont de l’industriel.
11-F	Ma réponse est oui mais il doit y avoir un apport intellectuel de la part du partenaire.
PUBLIC	
144	As long as the cash contribution covers all or most of the work, yes. In cases where overhead is paid to the researcher’s institution, I believe that the foreground IP should be owned by the industrial partner, with or without joint ownership with the researcher (and not the institution).
179	It depends on the amount of cash contribution and the significance of the new IP. A cash contribution should not automatically result in joint ownership.

33. Dans le cas d’un projet concerté, l’utilisation d’une PI d’amont appartenant à un partenaire justifie-t-elle à elle seule l’octroi de droits conjoints à l’égard de la PI d’aval développée au cours du projet par un chercheur appuyé par le CRSNG?

Oui
Non

Dans certains cas (veuillez expliquer pourquoi)

N°	Commentaires du répondant à la question 33 (indiqués dans la langue du répondant)
	UNIVERSITY
	Professor
23	How much is it related and dependent from background IP an how critical it is to the company. In some case, yes. But in other cases, when the technology is



	well known and spread there is no point.
28	This must be agreed between the researcher and sponsor ahead of time.
43	If this is significant.
57	Yes if the new development was impossible without the background, particularly if the background is still confidential.
59	Once more this is not black and white. It depends on the nature of the background information and the degree to which this is used in the invention. Note that in many cases such background information, and presumably IP protection, will severely limit licensing of an invention to other parties.
101	This should depend on other factors that weigh the relative contributions, including in kind contributions and this should be decided by the university.
120	If the partner provides cash or resources to develop the foreground IP.
148	It would depend to what extent the background IP contributed to the progress in the project. In some cases, this existing IP may be invaluable and hence the partner should be a joint owner of the foreground IP.
180	In most cases yes, however if major innovation and improvement occurs during the research and the company had little or no input, then joint ownership would be in question.
17-F	If this facilitates dissemination. Commercialization itself is not the goal: putting the research into use is.
16-F	A négociateur. Je crois plutôt qu'il faudrait considérer en plus une contribution en espèces.
	Industry-Liaison Office/ Technology Transfer Office
19	Rarely - only if necessitated by the business deal at the outset.
26	If the company's background IP leads the research naturally to the new IP
48	Only if the partner decides the IP will be commercialized and then the more reasonable route is to transfer total ownership to the partner with a grant back to the university of a royalty free perpetual license for research and teaching purposes.
62	Yes, - again may depend on the level of contribution, or may provide an exclusive field of use license to the partner, with the university retaining rights in other fields.
68	Yes, if the bg IP contributes to the fg IP.
74	Depends upon amount and style of contribution from the partner, their expectations, the type of research and probability of commercializable results
123	That would have to be negotiated ahead of time. You could agree to a non-exclusive license instead of joint ownership (especially considering the different obligations of joint ownership between countries).
14-F	Il faut éviter de contraindre le collaborateur de ses droits à exercer la PI aval. Dans certains cas, particulièrement lorsque la technologie présente une polyvalence d'application, la PI conjointe ou même la PI à l'Institution seule s'avère à propos. Dans d'autres cas une cession assortie d'une licence serait appropriée (voir les réponses précédentes).
	Vice-President, Research/ Office
8	Depending on how far the development of the IP was.
38	Could depend on how enabling the background IP was.
61	Should be an option that is negotiated
130	Depending on how much the background IP contributed to the foreground IP.



	Again, providing flexibility and latitude is desirable, relying on the best judgment of the university and inventors and on their negotiation skills.
134	Providing that the company makes a real cash contribution . Often the company contribution is largely in kind.
145	The centrality of the partners background IP should be a consideration and the value of the University`s contribution. Is the university simply making a small improvement on the partner`s IP or is it making substantive new discoveries with the partner`s IP forming only a small part of the platform?
182	Depends on intellectual contribution of the partner in development of foreground IP.
	PRIVATE
56	IP or impact? We haven't quite come to the realization of what is most important. Whether NSERC wants to protect ownership of patents or promote impact of idea should be first on the agenda. We seem to be stuck in discussion of words rather than ideas.
65	Depending on how closely the foreground IP follows on the background IP and knowledge supplied by the partner.
126	Again, it depends on how unique the newly developed foreground IP is. If it is a simple and obvious extension of the background IP, joint ownership should not be an automatic right. There will be grey areas here and negotiated agreements would be the best approach on a case by case basis.
132	If the background contribution that he partner has made can be shown to have taken research and development on the partners side and the contribution was significant to the IP.
149	Only if the foreground IP cannot be otherwise developed (i.e. Cannot be developed unless access to background IP is made available)
154	This is a delicate point. The test should be that if the partner had not been a partner would the foreground IP have evolved. This question is impossible to answer. However, if there is any expectation of foreground IP, its ownership should be addressed before the cooperation begins.
177	The background IP has to have a significant contribution in the development of the foreground.
32	If the case can be made that the background IP was so significant that without it the new invention would not have occurred, then yes. This situation will occur more commonly where the background IP is not publicly available, i.e. through a patent, and so the researchers would not have had any access to the background IP if the company had not provided it.
45	In the majority of cases, Yes. The project wouldn't go forward without the background IP. However, there are exceptions to every rule.
53	It can be, if the project is intended to further develop the prior art for re-application within the partner company. In cases like this, it can involve much more direct participation by staff in the company with the university researcher, which can lead to more jointly-developed IP, or purely foreground IP. In either case, the partner firm is already prepared to integrate and commercialize the results, again, making the benefit to Canada much, much more likely.
95	Once again, this will depend on how clearly differentiated the background and foreground IP work are. In these cases, there should be an agreement established prior to initiation of the project work.
129	Foreground IP is a separate entity and may or may not require background IP to



	be used commercially.
160	Cannot be 100% prescriptive
63	It may be, dependant on the reason why required. For example, if a partner has a large patent portfolio (say 400 patents) around a specific product, they may not elect to collaborate on a project which could generate IP, if there is a risk of having one or two encumbrances in the portfolio which could somehow put the product launch at risk. Therefore, unilaterally saying no to this question could be a deal breaker. The situation described would certainly be grounds for an exclusive license to the partner in their own field and likely a non-exclusive license outside that field.
	PUBLIC
144	If the project work would not be possible without the background IP, and that such background IP is only available from this particular partner, then yes. Of course, if the partner is contributing cash as well, please also my foregoing comments per 32.
179	Similar to 22. The fact that background IP has been used should NOT automatically result in joint ownership.

34. Compte tenu de la possibilité que le droit du titulaire d'une licence exclusive à intenter des poursuites pour violation de droits soit limité, est-ce que l'université et/ou le chercheur, en tant que titulaire des droits de PI, devrait avoir l'obligation de participer aux poursuites en pareil cas, au détriment du licencié, pour préserver le droit du titulaire de licence à intenter des poursuites pour ce motif?

Oui

Non

Dans certains cas (veuillez expliquer pourquoi)

N°	Commentaires du répondant à la question 34 (indiqués dans la langue du répondant)
	UNIVERSITY
	Professor
28	This must be agreed between the researcher and sponsor ahead of time.
43	If this is a high priority.
57	This should be negotiable.
81	The licensee is in effect purchasing a product and should expect the holder of the IP to stand behind the product. On the other hand, the holder of the IP would not wish to be obliged to join frivolous legal proceedings. In my experience this can be covered through some limited obligation specified in the licensing agreement.
93	This should be determined by the relative importance of the university derived IP relative to the entire infringement case. Unfortunately, this is better left to a case-by-case assessment.
103	This is a very difficult issue, and one that I had not considered before. Such court cases can cost a fortune, but as long as it does not cost the university a fortune, it is probably ok. However, I am concerned about the length of time the academic researcher may have to spend in court.
111	This may make sense but Universities may not want to pursue this in all cases.
124	Yes but only if it is so agreed in the licensing agreement (and it always is in my



	experience).
4-F	Ca dépend de l'entente université-licencié. Si l'université n'a aucun intérêt (ex. cession de la PI) il ne faut pas que l'université ou les chercheurs soient obligés à participer aux poursuites intentées.
7-F	Question pas claire.
9-F	Je ne comprends pas ce cas de figure...
	Industry-Liaison Office/ Technology Transfer Office
12	This is a matter for negotiation between the parties. I do not believe it is something that NSERC should concern itself with.
18	The University should have the right to decide not to undertake or participate to a legal action but allow the partner to do it at its own cost in which case the partner would retain the major part of the compensation obtained.
48	This is a good example of why no university should have a researcher owns IP policy. Researchers should never get involved in such litigation because they have not got the sophisticated legal background to understand the implications. Universities will generally not want to get sucked into any such litigation regardless of whether the licensee is paying the bills. Such matters still consume an inordinate amount of internal university resources. We recently converted an exclusive license to an assignment to ensure our licensee had the power to fully engage in protecting what had been our IP. So you want to avoid being required to join an infringement action. In particular your question should also deal with the situation where your licensee and the university are being sued for infringement which is something you don't want to have to join even more. However there may be some infringements where the university must take part such as over inventorship issues.
68	It would depend on the value of the IP vs. cost of doing so and whether the University could afford it.
170	As long as there is zero liability to the University.
2-F	Si la poursuite est pour défendre la PI, l'université et/ou le chercheur devrait avoir l'obligation de participer, tout en ayant pas de frais à payer si c'est le licencié qui initie la poursuite.
27-F	Laissons les parties libres de décider à ce sujet.
	Vice-President, Research/ Office
8	Not completely sure since there have been cases of confusing and legalities regarding this too.
11	If you are getting married it's for better or worse.
20	Not enough knowledge in this area to provide an opinion
61	Should be fairly negotiated on a case by case basis.
76	It's the word required that troubles me. I would say yes, on a case-by-case basis.
87	At the discretion of the University. Universities may not wish to pursue action if it has negative public relations consequences.
92	Subject of negotiations.
130	Based on the relationship between the IP owner and the licensee.
	PRIVATE
3	This is difficult to answer.
56	This is outside my realm of expertise. Speed to getting an idea to market will ultimately make or break an idea in a globally competitive market. If one wants



	leadership in a technology arena, one must act fast and implement innovation in that product equally fast. IP and infringement will become something for legal experts to wrangle about as other move on with meeting the market needs. Back to basics - what is it you want to happen, and how can you bring it about?
107	If the cost of the license is significant such that the licensee is at serious monetary risk without the support
139	I am not sure about such situations. In our 14 years of history I haven't seen any problems. As an industry we would prefer a non-exclusive free license as our products take a long time and much research to mature.
172	Assign it and get out. Universities do not know anything about infringement.
63	This is certainly the preference of an industrial partner, however it is recognized that certain statutes preclude this from being possible with certain partners, e.g., gov't.
33-F	De concert avec la partie détenant les droits de licence, ceci pourrait se faire.
10-F	Non applicable, les universités ne peuvent assumer ce type de risque. Il faut comprendre qu'une poursuite peut couter facilement entre 1 à 5 millions de dollars, surtout si réalisée aux USA. Il est très rare qu'une université© peut rentabiliser ce type d'investissement par ses redevances !
PUBLIC	
144	I am not certain that academic institutions wish (or have the sufficient resources) to become enjoined into any legal litigation, even at their licensees' expenses. If the current policy is to remain unchanged (i.e. partners can only become licensees), then yes, the universities must enforce the IP rights they own for their licensees. Conversely, if IP can be assigned to the partner (and co-owned with inventor), then the partner, with the assistance of the inventor, can directly enforce their IP rights.
179	The University as owner should be required to join the infringement action if it is a case of defense, i.e., some third party is suing and the university's licensee is defending. Otherwise, the university may join, but should not be required to do so.

35. Les titulaires auxquels une licence exclusive a été accordée au début d'un projet financé par le CRSNG devraient-ils tous être limités à un champ d'application?

Oui
Non

Dans certains cas (veuillez expliquer pourquoi)

N°	Commentaires du répondant à la question 35 (indiqués dans la langue du répondant)
	UNIVERSITY
	Professor
28	This must be agreed between the researcher and sponsor ahead of time.
43	If the partner has major intellectual and financial commitment to a project which benefits the investigator greatly
57	Flexibility is valuable. This should be negotiable.
101	This decision should be made by the university.
111	This may be helpful in the negotiations in some cases.
116	Some business arrangements may require this - consider on an case by case



	basis
4-F	Ceci dépend du type des résultats obtenus et des champs d'applications possibles. Parfois, une technique peut s'appliquer dans plusieurs domaines. Une licence exclusive pour tous les domaines peut limiter la possibilité de développer la PI car un seul partenaire industriel ne peut pas se développer dans toutes les sphères commerciales.
7-F	Si c'est possible il faut limiter la licence aux champs que le titulaire va exploiter à court ou moyen terme. Ceci permet d'autres opportunités aux chercheurs et à l'université.
13-F	Selon mon expérience, les situations particulières qui peuvent survenir dans le contexte de différents types de PI rendent difficiles de donner une réponse catégorique. Il pourrait arriver qu'une telle restriction soit tout à fait justifiée dans un créneau donnée et injustifié dans un autre.
16-F	A voir selon le type de technologie/invention et les obstacles à la commercialisation d'une telle restriction sur le champ d'application.
	Industry-Liaison Office/ Technology Transfer Office
12	This is a matter for negotiation between the parties. I do not believe it is something that NSERC should concern itself with.
14	Probably not a bad idea. It can be however complicated if the company itself would move to another field. It should be specified that the respective company would have the right to the license if it moves to other applications of the same technology
18	Ideally and of course yes. But our policy is to systematically refuse any up-front licensing rights prior to the start of an NSERC funded project. License agreements are negotiated after the project, not before.
48	If the partner has expertise and capabilities to enter into only a certain market either by application or by geography then perhaps the field of use and territory should be specified up front. On the other hand the partner may convincingly argue they should be given the right to sublicense
68	IT depends on the nature of the IP and whether the University/researcher wishes to leverage it into more than 1 sector or field of use.
74	Depends on the type of research and the probability of developing commercializable results.
123	May depend on the circumstances. I would certainly encourage a field of use provision.
170	If the technology has applications in more than one field of use and the industry partner does not have the capability to exploit all fields of uses.
175	Field of Use definitions are important as companies will take more than they need if don't control this.
181	Yes if so designated. No if not designated pre-research.
27-F	Dans le cas de technologies génériques, la licence exclusive accordée devrait se limiter à un champ d'application. Ceci permettrait à l'université de développer de nouveaux partenariats dans d'autres secteurs.
	Vice-President, Research/ Office
11	Again, IP is complicated and needs to be negotiated.
20	I think that a lot of these questions must take into account the level of relationship that may exist between a researcher and industrial partner. A baseline or guideline is very important to have but it should strive to be flexible



	enough to allow for these types of variables.
38	It can always be modified/expanded later if deemed best for the commercialization path.
61	Should be fairly negotiated on a case by case basis
76	Yes, on a case-by-case basis.
83	Clearly, this depends on the nature of the technology and the likelihood of application in areas outside the partner's abilities to exploit.
12-F	La question n'est vraiment pas claire...
	PRIVATE
122	This would certainly make it much easier to get Corporate involvement if the deal was understood up front.
139	I cannot imagine such a situation in my experience
153	Should be negotiated, if Industrial partners agree that they have no intention of pursuing directions of business that may apply outside their scope then a field of use could be appropriate so as to allow application of the IP in a broader environment. It should be a negotiated point.
154	Ideally, yes. However, that is a question to be answered by the industrial partner. It depends upon the field and nature of the IP.
1	It depends upon the circumstances and field of the science.
25	Left no comment
45	This is a reasonable to starting point for discussions, but again exceptions can be envisioned.
50	This might be a good way of striking a balance between corporate *wants* and more legitimate needs. Fields of use can be stated beforehand.
52	It is very dependent on the technology. Most licenses give the licensee the right to sub-license which is far better for the industrial party, and can save the university valuable time trying to find other licensees.
53	It should be negotiable. Unbounded licensing is too broad and could prevent any commercialization, if the partner company were too small, too local or regional in nature, or lacked the financial wherewithal to eventually develop the IP.
105	Depends whether it is likely to find other partners who will develop in other fields of use. If yes, then invention will be more broadly developed and commercialized. If no, then invention development will have been limited for no good reason.
114	It depends on the initial intention. Industrial sponsors fund projects based on their commercial interests, and use rights outside their own area of interest may have no value; in such a case there should be nothing preventing the university from independently commercializing outside the field of use. However, this is contextual, and there will be cases where it is appropriate for the sponsor to retain full ownership, or for both the sponsor and university to work together to commercialize through licensing.
129	Sometimes. This would depend of the breadth of the existing IP and the field of application.
140	I believe this would be appropriate in situations where the technology being developed has broad applications and the sponsoring industry partner's interests are limited to a particular field of use.
160	Depends on the circumstances.



174	I think the answer is probably yes, but would depend on the circumstances. Some technologies may have multiple applications, in which case this would apply; others may be very narrowly focused and this may not be needed. Since it is difficult to predict what the inventions will be, crafting a field-of-use limitation may be appropriate.
178	Every case must be scrutinized individually.
63	Only if the license to university is also bounded by FOU. The collaborative project is a partnership - IP rights must be equally fair to each side for both partners to win.
33-F	Il y a certaines PI qui ont des domaines d'applications très variés. Dans ce cas là, le champ d'application accordé à l'entreprise devra être limité.
10-F	Cela dépend si la technologie a de multiples champs d'applications et si le partenaire n'est pas disposé à adresser sur le plan commercial tous les différents champs d'applications
PUBLIC	
41	This really depends on how the field is defined. Any industrial partner is going to want that field to be as broad as possible, particularly if a final product is still many years and \$\$\$ away.

36. Dans le cadre d'un projet concerté université-industrie, une entreprise peut retirer d'une publication tous les renseignements commerciaux de nature exclusive qui lui appartiennent. Est-il à craindre que la cession à une entreprise des droits de PI accordés à l'université et/ou au chercheur limite la capacité d'un professeur à publier les résultats de sa recherche du fait qu'ils pourraient être considérés comme des secrets commerciaux ou des renseignements commerciaux de nature exclusive?

Oui

Non

Dans certains cas (veuillez expliquer pourquoi)

N°	Commentaires du répondant à la question 36 (indiqués dans la langue du répondant)
	UNIVERSITY
	Professor
21	There are concerns, but this depends on the company. If one deals with reputable companies with upfront agreements discussing uses and right to publish/delay publications, exclusive vs. none exclusive use, these concerns should normally be manageable
28	This must be agreed between the researcher and sponsor ahead of time.
59	My experience with a range of companies and IP's has shown that in general there is no issue here and that companies recognize the right for publication particularly where students are involved.
91	This is a very touchy point, especially when the IP is jointly developed by the partner and the university researcher.
93	It is important that these rights also be protected by the research agreement. The strength of the NSERC IP policy is an important anchor for IP discussions with industrial partners.
148	It would depend on the level of detail required in the publication and the degree to which the discovery is considered novel and not state-of-the-art. Certain



	proprietary information can be withheld without the need to forfeit a student's publication. All of this should be discussed in advance of the project moving forward with the understanding that the research should be published in one form or another.
7-F	Si la publication n'est pas permise il faut des avantages compensatoires pour l'étudiant et le professeur
15-F	Dans le cas ou les brevets ne sont pas possibles, le transfert de PI peut empêcher la publication de certains résultats.
16-F	Cela peut toujours se produire, selon la frilosité du partenaire industriel. Mais il faut voir que tous les projets de recherche d'un professeur n'auront pas cette restriction (plusieurs sont faits sans partenaires industriels). La collaboration avec l'industrie apporte, certes, certaines contraintes, mais elle apporte également plusieurs bénéfices notamment une compréhension accélérée (et impossible autrement) des enjeux et des problèmes importants à résoudre dans un secteur de pointe. Les industries ont une information accessible nulle part ailleurs (souvent propriétaire)...
	Industry-Liaison Office/ Technology Transfer Office
12	This is a matter for negotiation between the parties. I do not believe it is something that NSERC should concern itself with.
19	Usually publication precedes assignment so shouldn't be an issue.
36	As mentioned previously, the assignment should be made subject to certain conditions, e.g. the right of publication.
74	Again - this is difficult to assess.
98	In a collaborative university-industry project, an industrial partner is entitled to the removal of its proprietary information from a proposed publication. Are there concerns that assignment of university and/or researcher-owned IP to an industrial partner will limit the ability of an academic to publish, on the grounds that the research results could now be defined as the industrial partner's company secrets or proprietary information? Only if the rights to publish are not clearly negotiated upfront, including a grant-back to the university to allow academic research and teaching. If the university is not allowed to publish or retain these very basic rights for further research and academic teaching, I'm not clear on why NSERC would be funding such research in the first place.
123	If the data from the project becomes a part of the definition of Researcher-owned IP it would be a definite concern. If the Researcher could have access to the data for analysis purposes, it would not be a concern.
146	If an assignment of IP is made to a company, then the right to publish and do other standard academic activities using the IP (e.g. teaching, research, patient care for University research hospitals) MUST be preserved in the assignment of the IP to the company, just as it must be done when licensing.
181	This circumstance must be defined pre-research so that the parties are clear on any desired restriction to publication so that there are no misconceptions at the outset or limitations that are not acceptable to the parties.
2-F	Si la publication repose sur de l'information qui appartient à l'entreprise, c'est justifié que l'autorisation de l'entreprise soit requise.
34-F	Cela se négocie au départ, il arrive que la rétention pour un temps limité de certaines informations permette à la fois de publier et de conserver l'avantage concurrentiel nécessaire au partenaire commercial. Il arrive également que la carrière des étudiants impliqués peut permettre d'appliquer des délais



	raisonnables avant publication des résultats. Cela dépend de la rapidité d'innovation et l'activité d'innovation dans un domaine d'affaire spécifique.
	Vice-President, Research/ Office
11	Yes, this can happen and negotiated settlements (before the fact) are necessary if both partners are to benefit
20	Not enough knowledge to comment in detail but I could certainly see that situation arising.
61	Must be negotiated as required...one size does not fit all
182	The terms have to be defined at the outset so that this situation does not arise.
	PRIVATE
49	It might be a good idea to resolve this issue by requiring company to patent the secret if this situation arises. This would be in accord with the intent of patent law.
56	As mentioned before, there are needs for publications and different types of publications. There are perceived needs that everything must be published and as long as we advocate publication as the holy grail of academic then we will always have a dilemma. What do we want to happen and how can we make it happen?
72	The concerns can be addressed by properly defined agreement terms that allow academic publication and teaching. Such terms are negotiated and agreed upon by both parties.
106	The researchers understand at the time when they are provided with such proprietary information whether it would be allowed to be included in publications. They should therefore consider this in their research so that the issue should not arise when the results are to be published.
127	Like any contract, I would expect that the removal of proprietary information would apply only to pre-existing IP that was shared during the course of the project. Like publications, companies would have a time limit to file IP (e.g. 6 months). On conditions that any IP (e.g. patents) are filed within a reasonable time so that it does not significantly inhibit student progress, then there should be no concern of publication.
154	Information developed on/from a publicly funded effort should be public. Information derived/obtained from the industrial partner should be respected as a trade secret and treated as such, if he desires. This should not inhibit publication, but it may prevent a full disclosure of all the information derived from the partner. The greater issue is likely to be the validity of the information published.
4	This hasn't been the case in my experience. However, I'm sure that the possibility exists that it may limit the ability of an academic to publish.
9	A possibility but usually there is middle ground found allowing publication to take place. There are puts and takes involved with university researchers collaborating with industry as opposed to pursuing purely fundamental R&D.
42	Clearly a balance needs to be struck here. There will always be issues that need to be worked out. That is the price a researcher pays in collaborating with industry.
45	This could be a concern, but in collaborative projects, we have always assumed some form of publication would arise from the work. By careful structuring of the project, the researcher can be left with publishable results while protecting



	sensitive company information.
55	This issue should be agreed to before the research is started and a binding arbitration clause included in order to preclude inappropriate restrictions.
102	Depends on the agreement between the researcher and the Partner.
114	Yes, this is a valid concern, though one that can be addressed in the agreement. The more troubling issue is where publication or thesis defense is allowed even though an industrial sponsor's proprietary information has been utilized and is an indivisible part of the document.
129	There should be no limitation on publication if the agreements are properly structured in the first place. These are issues that need to be discussed and negotiated and written into the agreement prior to commencement. In most situations publication of research is actually beneficial to the industry partner as it provides a public peer reviewed forum for the dissemination of the concepts and may actually drive a desire to see the technology exploited and or brought to market. Most companies in my experience rarely remove what they might consider confidential information from a publication and or try to block publication.
140	This could be a potential issue which would need to be negotiated up front.
160	This is a valid concern, i.e. that timely publication will be suppressed. However, researchers need to be aware that developing commercially valuable IP might be at odds with conventional academic rewards. For example, does a patent application hold equal weight to a research publication? Do holding valuable industry projects and relationships have equal weight to sitting on editorial boards of journals? The activities are different, and it would be wise to recognize that researchers can't have it all ways. Similarly for industry – by its nature university research must be treated differently from internally developed projects.
10-F	La cession devrait se faire à la fin (ou au terme de chacune des années) du projet subventionné par le CRSNG, il serait ainsi plus facile de délimiter l'information assujetti aux secret que laisser cela discrétionnaire au partenaire industriel
33-F	Le professeur qui s'engage dans ce genre de relations doit nécessairement être conscients du fait que l'industrie a ses propres contraintes. Et par le fait même, ce prof doit trouver des terrains d'ententes sur ce qui doit être publié ou non. Il faut garder à l'esprit que nous sommes dans un monde extrêmement compétitif, et cela exige de la prudence au niveau publications et de leurs contenus (du moins avant le dépôt de brevets)
	PUBLIC
144	If the project results do indeed warrant non-disclosure and be considered to be confidential, exercising care in what to publish vs. what not to publish would benefit all owners of the IP ... e.g. when the researcher and the partner are both owners. Conversely, if the partner becomes the exclusive owner of the IP, then a time-cap on non-disclosure would be reasonable in my opinion as long as the project is not a fee-for-service arrangement (e.g. when overhead is paid to the institution).

37. Si vous estimez que le comité de spécialistes du CRSNG devrait se pencher sur d'autres enjeux dans le cadre de l'examen, n'hésitez pas à nous en faire part.



N°	Commentaires (indiqués dans la langue du répondant)
	UNIVERSITY
	Professor
16	The IP policy in many universities is not conducive to collaboration with industry especially in engineering. Engineering technologies are not linear and very rarely go from lab, commercialization with a one-directional arrow. It is a lot of useful feedback interaction that does not lend itself to clear boxes of current policies. The issue needs to be addressed because it affects collaborations negatively and it leads to loss of much needed good will and support from industry.
21	Managing of background IP in medium to large research groups that will interact with numerous industrial partners over a long (say 10+ years) will become more and more complex. Having a Tech Transfer Office at the university may help but also impede research and training of HQP, which remains the prime goal.
23	Very few companies are willing to contribute cash to research. They want the IP. It should be ok as long as university researchers/students are allowed to publish papers and theses without any restriction.
27	At my university, the Industry Liaison office is not effective and subject to many complaints about incompetence. They also have no money to effectively pay legal costs associated with IP. Although they may be well intended, they are very naive about industrial needs and policies.
28	Greater flexibility must be given to the researcher. Sometimes, very silly reasons prevent agreement between the university industry office and company based on IP. The creator of IP must be able to judge his/her contributions, not the officers at the university who have no idea about the significance of IP.
33	I think the University should assume responsibility for maximizing its return on IP, with guidance from others including NSERC, but without limiting the choices the university could have in negotiation.
43	The IP concept needs to be revised since the investigator must be encouraged more than at present
57	I would ask you please to consider the issue I raised earlier: NSERC's requirement that certain grants (e.g. I2I) require Tech Transfer signature effectively empowers our university to coercively breach our collective agreement right to IP ownership--an effective disincentive for the University investigators to commercialize/translate their research. NSERC should change its policy to recognize this different IP ownership regime at University's, freeing researchers at those universities from the requirement for Tech Transfer Office signature.
59	In most cases the IP/inventions are incremental in nature particularly where they involve collaborative projects. Where there is a real breakthrough invention the stakes become a lot higher and thus extreme care must be taken to fully protect and carefully license the technology. Public disclosure of the work has to be done extremely carefully, if at all. I would be happy to discuss our real life experiences in the commercialization of a breakthrough technology developed in my lab with NSERC funding if this. The work was not collaborative but simply funded by NSERC. That being said it the background work upon which the invention was based developed over many years work carried out with collaborative and strategic grants funding.
60	Universities use different internal technology commercialization vehicles. These



	should be not-for-profit (i.e. they cannot compete with the technology's interests, in the short or in the long term) i.e. if such organizations operate on a cash flow, immediate/short term benefits (such as via licensing) will trump the benefits of long term initiatives such as commercialization via a spin-off company. NSERC should offer mediation/advice to researchers on such matters as these issues cannot be efficiently handled internally.
64	Canada shares a border with one country and 3 oceans, yet NSERC has no category or committee that reflects the significance of Ocean Engineering and similar fields of endeavor. Of the several companies that have spun out of my research work, and others with whom I have collaborated, I have difficulty putting them on the NSERC map as it is currently drawn.
93	In any case I have observed, the researcher has been the champion of IP commercialization. The NSERC IP policy is compatible with this situation. It forms an excellent platform for IP negotiations. It would be a grave error to modify this policy. Weakening the policy would alienate researchers, and curtail innovation. Enhancing the rights of researchers, on the other hand, will increase researcher involvement in the development and commercialization of intellectual property.
99	IN fact, the IP issues are very complex and require the involvement of lawyers. I would suggest that we need to have a special forum that involves researchers of different backgrounds, university administrators, and lawyers and the best practices we can develop.
103	It has been an education just reading these issues. Some changes may be necessary, but the best approach is to ensure that collaborative projects funded by NSERC are based on a healthy and trustful relationship between the researcher and the company. As a final point I hope that any new policies will not result in excessive paperwork.
111	Any changes in the policy need to be weighed against the benefits versus costs. This is gov funding at the end of the day and this has to provide some leverage, especially when the cost of research at a University is quite inexpensive.
116	The whole issue of IP ownership/management/licensing/use is very complicated and case specific. The development of single policy to cover all cases will be very difficult. Flexibility in the policy will be essential.
120	This is a complex issue. I am not sure that through a questionnaire such as this one (albeit very well made) allows the researchers to provide accurate information. I encourage you to analyze the response through trends rather than specific opinions. Best success in this project.
124	This is obviously a complex area and many researchers are ill equipped to know or defend their rights. I think NSERC would do all a service if they had on staff a consulting patent attorney that researchers could ask for guidance and opinions and examples of current practice. They would not be expected to prosecute patents, only advise. Such an uninterested third party would counterbalance the pressures from industrial (or other) partners and also from cash strapped or uninterested university IP offices.
137	The panel should consider the dramatic difference between the Canadian patent system, the US patent system, and the treatment of IP in India, China, Europe, Africa, Australia and Japan. As international collaborations and joint filing increase, there is a substantial risk that a restrictive policy will not allow Canadian partners to compete internationally, while running the risk of having



	their IP copied and reused in large but unregulated markets. Due consideration to light patents and the minefield of software patents in the US must be given. Above all, maintaining a flexible system that can rapidly evolve to conform to and sometimes anticipate trends in IP protection must be a first priority.
141	IP as it is stated by NSERC today his a major problem to good collaboration's with industry in the IT field. Company would like to know that they can used the research result in there future product. Giving that Canada has very small numbers of large IT company and the majority is SME which need the IP to survive.
148	The issue of the industry funding level can become a sticky point in negotiating ownership of technology. Most partners contributing substantial amounts of cash would want to see their ROI in the form of ownership or exclusive licenses or patents. This needs to be addressed to ensure potential partners do not walk away if they are not provided sufficient technology ownership incentives.
17-F	The central issue is not who own IP but the creation of methods to facilitate sharing. The present policy too narrowly focuses on the title holder to IP which is largely irrelevant given the availability of sophisticated licensing strategies. What is needed is encouragement of the sharing of research results through innovative licensing practices and the limitation of patenting over research where the results are usable as is once published. NSERC should investigate the role of patent pools and clearinghouses as well as open science platforms. They should also look at the experience of such technology transfer offices as the University. The latter does not depend on patents but on its data. This gives rise to innovative methods of using intellectual assets not to give away, but to build partnerships and enrich available knowledge.
7-F	Il faire en sorte que les négociations sur la PI entre l'université et les entreprises soit le plus rapide possible. Ceci prend souvent plus de six mois. C'est à la limite du tolérable pour les chercheurs et les entreprises. Une réduction de ce délai augmenterait le nombre de projets de recherche. Une augmentation réduirait fortement le nombres de projets.
9-F	Ce débat sur la PI est la plupart du temps oiseux car il occupe des avocats qui ne savent rien de la recherche ou des affaires. La plupart des publications sont dans les faits de la publicité pour l'entreprise qui devrait plutôt en profiter que de tenter de les limiter. Dommage que peu d'entreprises ne réalisent que leur principal profit d'un projet conjoint soit la possibilité d'avoir du personnel hautement qualifié dans leur domaine qu'ils peuvent ensuite engager plutôt que le résultat brut de la recherche.
16-F	Les enjeux reliés À la PI me semblent très importants. Merci donc d'avoir convié les chercheurs et le milieu universitaire à les adresser avec vous.
	Industry-Liaison Office/ Technology Transfer Office
14	Yes I think that NSERC should look at what has happened in the USA since the Baye Dole act. On balance it has created a much greater focus on developing and commercializing research. Canada should enact similar legislation at the federal level. We should not be a dumping ground for US companies to do research and own it by proxy through the research as exists now with NSERC awards. Also the level of support needed to manage IP would be decreased since everyone could focus on not who owns the IP, but can it be developed in to a valuable product.
18	The fact that the NSERC policy mentions that the partner may benefit from a



	non exclusive license or an exclusive license with limited field of use is often interpreted by the partner as a free commercial exploitation license without any royalties to be transferred to the University. Our policy is that any commercial license agreement (exclusive or not with limited field of use or not) should bear royalties. I believe that the rights granted to the partner within the policy should be limited to a right of first offer or a right of first refusal to obtain a license (exclusive or not) the terms of which should be negotiated in good faith between the parties.
19	NSERC must recognize the value and benefits of investments into Canadian research enterprise from foreign-based industry. It is a recurring issue and challenge that we cannot establish an effective mechanism to work with international and multinational companies
26	To date we have never experienced a situation where exclusive licensing has precluded commercialization. I often hear that assignment is essential to allow a company to secure financing to move the product to commercialization but I have yet to find in reality a deal constrained by the lack of assignment.
35	As far as I know NSERC's current IP policy does not apply to IPS and possibly other studentships or fellowships. Currently IPS allows for assignment. This policy against assignment should include fellowships and scholarships.
40	We know the Canada is falling behind other countries such as the USA in innovation from academic research. There are many reasons for this but a definitive review of the influence of the Bayh-Dole Act in the USA should be conducted and a recommendation made as to whether a similar process be applied to Canada. I am not convinced it is the answer but would like to see a thoroughly reasoned analysis of the situation before it is forced upon us by the government.
46	The US's Bayh-Dole Act creates a set of common principles - universities can elect to own if 1) they report on efforts to commercialize, 2) share with inventors and give preference to small business IF it can present an equivalent plan for commercialization. The US is also well served by the fact that entrepreneurship and how-to's are explained as well as by the fact that it has a large commercial economy and that more research is done in industry than is done in higher education- i.e. researchers in academic can learn from their peers in industry. All of this allows US institutions to act as cartels. The downside of the US system has been offices `chasing the whale' by patenting too much and emphasizing large up-front fees in licensing to fund tech transfer offices. Ironically, if Canada wants to help industry, it would have done better to have put at least as much into IRAP (Industrial Research Assistance Program) as into institutions. Development work generally doesn't qualify for CRDs or other forms of research funding and it takes as long and costs as much as early research discoveries. It also interfaces more with regulatory requirement - about which few areas of academia are proficient. And Canada needs to direct sustainable funding into tech transfer if there is to be any hope as the researchers and Canadian administration of most academic institutions mostly care about increasing the dollar value of research, not about commercialization per se. The fact that we don't have as large an economy, we don't have seasoned entrepreneurs outside of the resource industry and we don't do much research in companies is a problem. Universities interact with industry largely to obtain matching funding - thus IRAP gives small and medium sized companies



	<p>a chip to be in the game - otherwise universities are like other large companies - they mostly want to collaborate with other large companies. The focus on universities has resulted in the creation of too many too early companies. University profs and grad students often think it is easy to get money in the private sector. A start-up should never be created until the technology is about 2 years old - old enough to have had competing patents to be published and searched. This is typically when the patent office does the first international search report. If this report says no patents were found that limit application - that is when a company should be formed, not at the pre-provisional filing stage. Angels hate it when they put money into a company only to learn that the work wasn't novel in the first place - it makes them loath to deal with those researchers and the institutions from which the opportunity grew. Note that the need of the company to own generally comes from the IT field and from the VCs who might seek to realize on any residual value in securing financing.</p>
48	<p>I have seen many approved contract research agreements with industry partners that provide an option that has no time limit and requires the university to file patents on resulting IP. This puts no obligation on the company to negotiate a license while it makes the university spend money on patenting even though it has no assurances from the partner that they will pick up those costs. I also believe that too many practitioners are prepared to live with right of first refusal options in contract research agreements. From a practical point of view these are too difficult to make work and would far sooner deal with a right of first offer with a provision for arbitration if the partners can't agree on licensing terms.</p>
68	<p>Yes. We had a situation where the University was writing an IPS proposal and where the industry partner was proposing to control all IP rights with no license agreement in place. We were told by NSERC that with this particular program, IP rights were not a consideration even though NSERC IP policy (stated at the beginning of the survey) stated otherwise. The University had to refuse the 'bad deal' not based on who controlled the IP but on the fact that no fair compensation was in place as part of the collaboration.</p>
98	<p>To ensure that if IP is developed using Canadian public funds, and royalty-free rights are granted to the sponsoring Canadian company, it must be used in Canada and therefore to the benefit of Canadians. More and more multi-nationals are seeking royalty-free IP rights in these collaborations in fields clearly outside of their primary Canadian operations, essentially, for the benefit of parent and subsidiary companies owned and operated outside of Canada; the question is to what benefit for Canada? Perhaps any export of the IP rights developed with Canadian public funds should automatically require a reasonable, royalty-bearing license?</p>
181	<p>The key to IP is pre-research discussion and usually the review of case examples of types of contemplated relationships and uses of the IP so that provisions may be established on common principles and hurdles that may be involved</p>
14-F	<p>Des clauses types (par ex. cas avec partenaires avec PI amont, sans PI amont, avec champ d'application bien délimité, etc) développées à l'usage par l'ensemble des institutions canadiennes et acceptées par le CRSNG devraient être affichées sur le site public des programmes de façon à donner un levier de négociation aux agents des petites institutions qui n'ont pas recours à un</p>



	conseiller juridique faute de moyens. Souvent les ententes s'établissent avec des partenaires qui font affaires avec des avocats (à l'interne ou à l'externe) et ces clauses posent souvent problème et retardent la signature d'une entente.
23-F	En cas de PI conjointe entre l'université et l'industrie, au terme de la loi canadienne, est un vrai piège pour les universités. Une licence non exclusive peut devenir de fait exclusive puisque un partenaire universitaire ne peut commercialiser sans le consentement du copropriétaire. Étant copropriétaire, on peut devoir avoir à assumer des frais que l'on ne désirait pas assumer. La copropriété avec une entité© commerciale ne défavorise-t-elle pas toujours l'université?
31-F	(Aucuns autres enjeux à signaler, mais un commentaire: La question en début de consultation concernant le domaine m'a parue n'offrir qu'une seule réponse bien que les bureaux typiques œuvrent avec des chercheurs de plusieurs domaines.... Peut-être est-ce sans conséquences pour l'examen de la politique, mais j'ai interprété le choix comme étant le domaine qui constitue la plus grande proportion des efforts du bureau. Enfin, il serait utile que nous recevions par courriel une copie de nos réponses....). Merci.
34-F	Il serait intéressant de se questionner sur le fait d'accepter les frais de protection et l'incidence que cela aurait sur la pratique du transfert et de la valorisation technologique au Canada. Les universités ont souvent de budgets limités voir inexistant pour assumer les frais de protection et devant la pression de la nécessité de diffusion des connaissances, publient sans protéger et perdent tout potentiel de commercialisation.
	Vice-President, Research/ Office
8	There are barriers and problems currently working with federal government labs that with industry. This should be addressed if collaboration can be spread.
20	I am pleased NSERC is taking on a review of the policy. I think that there is a way to mutually move forward that will support the commercialization potential in a way that respects each university's freedom to operate and culture while helping the university protect and support academic freedom.
61	We must do more to reduce the situation where universities/researchers feel compelled to own 100% of nothing...i.e. hoarding IP that could be of value...few universities have the resources to complete the innovation cycle. We should remove whatever barriers we can, and I think NSERC's current policy errs on the side of reducing the flow of IP into the public arena. The IPM program is a great start...and more could be done to encourage innovation.
86	Very often, Canadian universities' divergent intellectual property policies are cited by the private sector and others as an impediment to commercialization. There seems to be a sense out there that there exists a mountain of commercializable IP out there and that Canadian universities are just not very good at getting this out to prospective companies. These beliefs constitute the core of a myth that needs to be strongly countered. At the end of the day, whether the IP is inventor or institution owned, it is the institution which typically exercises control over this IP in order to proceed with commercialization. Perhaps companies would prefer to deal directly with inventors. With rare exception, however, inventors are quite comfortable with leaving this to their institutions, which possess the resources required to negotiate effectively and fairly on their behalf. It is also the case that many companies appear to resent the time it takes to negotiate licensing and other agreements. The fact is,



	however, that such negotiations likely take no longer than agreements that might be reached between companies for the same purpose. In addition, many universities are now negotiating umbrella agreements to put the pain of negotiation up front as it were and pave the way for quicker and simpler agreements down the road in specific project areas.
151	To enhance benefits to Canada a ownership by the Universities will be a better model. This is not to preclude sharing of proceeds with the researchers but universities could become more aggressive in the exploitation of the IP.
	PRIVATE
3	Industries will often have more experience than university business development offices (BDO)/office of technology transfer (OTT). Universities should use this advantage in many commercialization strategies and recognize this. The collaboration is a way that researchers team up with industries to complete a successful R&D program. The BDOs/OTTs should partner as well when it comes time to commercialize. Therefore, acknowledging, and being more open to, joint ownership would encourage industries to work more with universities and give technology transfer its best chances. Also, in many cases, the valorization societies associated with the universities will make the commercialization process more complicated than it should. Their roles should be re-evaluated in this.
31	We have benefited greatly over the years from the University's policy of allowing inventors to own IP developed in their laboratories if they chose to do so. This allows us and the inventors to by-pass the technology transfer office and to negotiate directly with each other. There is a real incentive for the inventors to be personally involved in development of new technology arising from their work, and a much greater chance of new products being developed. There is provision under the University's policy for the university to receive 30% of all royalties, so the university will reap a significant benefit without further cost if a product proves to be profitable.
56	Forget the language of IP and ask what NSERC really wants to support. Is it innovation (ideas to impact, high incentives for collaboration by all partners, more focused ideas getting to commercialization, etc) or is it the status quo (publications, low impact, superficial return of public monies back to academia from industry, etc)? I may have seemed harsh in my comments, but NSERC should be leading by innovation (identify the problem, identify a solution that has impact.... you simply must understand the impact you want, and be sure it is compatible with a global economy where information flies at the speed of the internet, and ideas become obsolete almost as fast. Canada can't be caught up in preserving the status quo, or if it is, it won't be competitive, and those who can afford an education will be going elsewhere to apply their skills and create impact.
58	In general I think NSERC has the right idea. Publications, number and quality, are often used to judge a students and/or researchers performance and abilities. Therefore, if publications are few or watered down significantly they both stand to lose a great deal. I think the time limitations on publications must remain in place. I was a student in a NSERC-Industry funded group, with out the NSERC guidelines we would have had very little pull to make sure things got reviewed promptly. In terms of IP ownership, I think that decision should be left up to the researcher and their institution. Yes, you could make millions if



	you own everything. But realistically it is very expensive to build and run a lab, thus the funding needs to come from somewhere and the funding party should be compensated for their investment. Some people do want to own all their IP, and dream of one day running a company based on their inventions. If that is what they decide they should be allowed to do so, and should write IP agreements appropriately. Other researchers are happy having a well funded lab that is doing research that somehow benefits society and at a facility where they can pass this knowledge on to others. They don't have any interest in running a business that is why they chose to be at an academic institution. These people should also be allowed to make that decision for themselves.
72	We understand the position of NSERC in ensuring Canada and taxpayers' investment is protected. However, flexibility in IP position will greatly encourage industry-university collaboration and improve funding opportunity, with end results that are likely to be beneficial to Canada and the tax payers.
78	I think that NSERC needs to establish a formal panel to form recommendations on these policies and that the panel should consist of senior legal counsel for various sized companies as well as public sector participants and university offices of research administration.
79	University/Academic Researchers' IP and the NSERC Policies in some cases limit working relationships between the private sector and the Researchers.
96	Consider two levels for this issue. Let the students work on the agreements at a basic theoretical level and have full time researchers who have access to confidential information or the big picture. put in place confidentiality agreements with the folks who have the big picture. I think industry would fell better with the approach.
110	Today, it becomes more and more difficult to protect your rights. Lawyers make s fortune out of this without any added value. The only way to make profit from your research work is to be the first one on the market. A policy on IP issues that favors a fast commercialization is what is needed most.
122	What any reasonable Industry partner should be able to know up front is what it is going to cost to be able to use any technology that comes out of a joint development. Currently it is much too wishy-washy which relies on a good relationship between Researcher & Industrial Partner. Unfortunately those relationships can get strained over time as the motivation of both parties is significantly different.
126	No. Overall my experiences with NSERC funded projects have been very smooth and trouble free.
139	My biggest concerns are the additional rules imposed by the university's commercialization departments. I have had to withdraw from proposed partnerships because my company couldn't accept the rules. I have 2 projects with *Name Removed* University at this point where the rules are very disadvantageous to our company and the management might decide to get out of the projects even if the research is very interesting. We have no issue with leaving the IP with the university/professor, however to end up with not even a non-exclusive free license to commercialize after contributing with both cash and in-kind and background IP is totally unacceptable (this is what these offices expect!)
154	All industries have employee policies which reserve the right to any IP developed with company resources or similar to the company's product line. No



	<p>company wishes to pay or cooperate with an entity that is going to use its IP and experience to develop a competitive body of IP. There must be a mutual advantage to the cooperation. That should be defined in the terms signed by the two parties and can not be dictated as is done in the broad sweeping terms of the NSERC policy without drastically limiting its industrial partners to those who benefit in some other manner. They may be users of the technology. They may wish to trade on the university name. They are not likely to be collaborative scientists from industry who have a need to protect/own the IP for their own products. Universities can justify the testing of new methods without owning them. That is a great public service and requires their special skills. They can bring honor to their name by being the best informed of the best methods. Those methods they teach and those they use. That is reasonably publicly funded. If the universities see themselves as developers of IP in competition with industry, they are not interested in the public good so much as their own good. There is a recent trend for public agencies to license technologies developed on public funds for the benefit of the agency, severely limiting the availability of the technology to the public at a reasonable cost. Is that the purpose of the agency, to make money?</p>
167	<p>To make a scientific discovery, you need: 1) time to think, 2) money. While 1) can be better done in universities, 2) is best done in industry. Why not leave the universities do their jobs in education and research, and the Canadian companies make money for their investors? How can a University claim that because the professors are allowed to think, that they can own the rights? By far, the most difficult tasks are to find the funds, since if it was so easy, all professors would not even requests funds from NSERC nor Industries to carry their research. They would simply leave universities and open their own businesses. Which they don't (understandably). University professors who want to make money of their inventions ought to open a spin-off, and work the 80 hours week required, and go through the borrowing exercise, and lose sleep at night. In this case, there would be no IP issues. Why not have the industries find the funding, and as the competition increase, invariably will look towards universities for innovation? This sequence is a win-win situation, where each institution does specialized work in this global market, ensuring maximum efficiency. Of course, this is only possible if IP remains within the institutions which do the commercialization, as otherwise, industry can hire their own professors within their premises. In any event, the current IP policy is hurting Canada's effort in becoming a leading industrial nation within the global markets, as innovation cannot proceed today. We must change our views, and I welcome this effort from NSERC on the reviewing of it's IP policies.</p>
1	<p>The panel needs to give consideration to the emerging issue of multi-party ownership of IP. This is becoming an increasingly difficult issue to deal with as more and more regional innovation networks emerge where both academic/industry and government partners are involved.</p>
4	<p>I would be reluctant to initiate a collaborative partnership with researchers if I felt that there was a good possibility that the resulting IP could be commercialized. The reason for this is all around the investment. In order to have a share of the ownership, one has to have a share in the investment to commercialize and sustain. When the IP policy is re-written, it should reflect this.</p>



29	NSERC's current policy is an excellent one for protecting the interests of academic research. It may not be possible to have an IP policy which protects academic interests and also facilitates university-industry collaboration. The fundamental question is whether or not NSERC should be promoting industrial collaboration.
32	The biggest issues (which are being considered by the Panel through this survey process) are around IP ownership/assignment and publication. If these two issues could be resolved through some flexible policies to protect the company's interests, it would encourage more participation in university research and easier investment in the Canadian companies that undertake this effort.
42	I am glad you are dealing with this issue.
45	Establishing a common practice across all Canadian Universities is an important consideration. Each university seems to have a slightly different interpretation of the rules with the result that we see different agreements put forward by each University. This takes additional time for Legal reviews and very seldom contributes anything to the actual delivery of the project.
52	From a company's point of view, the ability to have the IP assigned to the company would be beneficial. All other aspects of the present policy seem to be fine.
53	The panel should also realize that although the developing world is improving in its treatment of IP in the academic setting, piracy abounds. Especially in the manufacturing sector, the ability for firms to reverse engineer other companies', other nations' products and services is key to economic success and growth. There is little incentive for their governments to enforce laws on piracy, except for the purposes of public appearance. This can create the situation that western companies are driven more to use trade secrets, to avoid disclosure, or to move to rapid product development cycles that are so short, IP protection becomes a moot point. Growing demands for novelty, turnover, and replacement become key economic drivers, and may render traditional IP protection regimes archaic, because they cannot respond fast enough. For Canada, this means that our policies on IP, if not kept open and flexible, could well become new disincentives for investment, even if we simply maintain the status quo.
67	I believe that the panel needs to ensure that the legal framework for NSERC-sponsored (in part or in whole) collaborative R&D, while fully protecting individual researchers and public sector institutions, is bullet proof in terms of possible litigation by disgruntled industry sponsors and individual researchers and public institutions. I.P. should remain the exclusive property of the principal investigators who should by regulation be required to be employees or students from public sector institutions. Private sector participants in NSERC funded R&D should recognize that any contributions made (cash, data, I.P.) will ultimately become the domain of the public sector, without exception. I would suggest that in order to encourage private sector participation, a longer confidentiality period be made available, subject to agreement by all parties, whereby the private sector contributor can reap some benefit in new results by having a 12-24 month window to apply these results in its own business, provided no patenting or copyright rules are violated.
133	There should be follow up on agreements made after successful developments



	from NSERC funded research to ensure the agreements are to the larger benefit of Canadian industry and researchers not private agreements with opportunistically seized on via foreign companies.
140	I commend NSERC in their initiative to review the current policy around the ownership of IP as it relates to situations where NSERC funding is involved. The review is long overdue. In talking with a couple of different universities who are involved in this initiative I find that they are struggling with the current policy themselves. They are beginning to appreciate that there is more to commercializing/licensing technology than they originally thought and that their Technology Development groups are not generating the cash they thought they would. Universities are not set up to commercialize technologies. I think we are far better to leave it to industry - they do it far better. I also believe that many university researchers would welcome the opportunity to get involved in more hands of applied research and would happily give up the IP rights to do so.
172	I would say the initial agreement should be a license with a right for assignment based upon achieving a demanding milestone. The milestone will show investors what needs to be accomplished and will give them security assignment will come. If milestone is not achieved IP still under license and owned by inventors/institution. Impossible to retrieve IP from company later especially in receivership situation.
174	Since I hedged on many questions, I would say a flexible approach is needed. I also think NSERC needs to think about why it is funding collaborative research and what is the best way to manage the outcomes of that research. To a certain extent there is a conflict between NSERC's goals (benefit to Canada) and those of the academic community here.
176	As a pragmatic matter, the costs of running a tech transfer office, and prosecuting patents greatly outstrip any value returned to an university. Generally, the licensing of IP in Canadian universities is not in line with other international universities. Also, the IP policies of universities do not reflect the general trends of the international marketplace. There is also a tendency to patent too early because now patents are treated as publications which diminish their value. I would suggest that the number of patent applications be decreased, and more research dedicated to the public domain. Industry will find a way to translate basic research. Universities and NSERC does not need to do this. Universities are ill equipped to commercialize IP. NSERC does not have that policy mandate. Therefore, in order to derive the most good for the country, the basic research being funded by NSERC should be made more widely available on a non-commercial basis. The actual commercialization should be driven by market pull.
63	<ol style="list-style-type: none"> 1. Definitions must be clarified: Partner; Customer; Collaborative Research; and Contract Research. Issues arise when parties have their own interpretations. For industry a “research partner in a collaboration” is very different from a “customer of contract research” and expectations as to ownership and control of IP will differ. Further, university has commented to me personally that contract research is any research covered by a contract. Industry interpretation is very different. Naturally all outside interactions are governed by contracts, however, they are not all contract research. 2. As an industrial partner has a product focus, so should a university focus on



it's primary product: students-HQP. For both, licensing should be a second priority: an added benefit. Therein lies the issue.

University IP agreement discussions are governed by tech transfer offices whose primary concern is the ownership of IP and licensing such IP. This is most likely driven by the metric which is used to evaluate universities on effective use of government funds for research – ownership and licensed patents, as a [false] measure of commercialization success. Subsequent to the end of a research project, commercialization requires many more years of additional development, infrastructure, investment, and de-risking of technology, none of which universities normally contribute to. In the same way that a partner would not demand rights or royalties stemming from the future output of the university/university's product beyond the end of the collaborative project, neither should the university expect rights or royalties stemming from the future output of the company/company's product beyond the end of the project.

Current NSERC policies make a number of demands on the partner: contributions of cash, in-kind support; ability (including know-how and infrastructure) to utilize research results commercially; and funding of own research costs -- all with the expectation that university will own the research results and the partner will, subsequent to the project, pay upfront fees or royalties for access and/or exclusivity. This is not a win-win arrangement and as such, would not be attractive to many industrial partners. With this approach, university-industry projects will continue to be fundamental and commercialization will continue to lack. University and industry must have the flexibility to decide IP ownership/grant backs on a case by case basis and to structure agreements which equally benefit both while fostering innovation and commercialization in Canada.

NSERC's IP policy should use criteria that encourage commercialization and not the ownership of IP. Such policy could support structuring of agreements that allow both university and the partner to win. Policies must recognize industrial cash and in-kind contributions as well as industrial intellectual contributions. The notion that research results should be owned by the university, regardless of the partner contributions will not support participation of any partner beyond the most fundamental research. This will not foster a culture of university-industry innovation or commercialization in Canada, nor will it enable the highest quality of student training possible.

Possibly, NSERC grants/requirements could fall into two category models: i) University as Research Partner - reciprocal (partner-university) IP rights with significant publication and confidentiality restrictions, enabling students (and Profs) to participate in real life projects which are conducted toward commercialization, or ii) University as an Educational Institution - reciprocal (partner-university) IP rights with lesser publication and confidentiality restrictions, involving fundamental understanding research which without expectation that results will be commercialized. The latter of these two scenarios is the most common case for my organization, as currently all



	university collaborations are carefully structured to be fundamental since current NSERC/university policies do not allow for a positive business outcome for the partner.
184	In the extreme, If NSERC goes too draconian; it may force companies to file broad patents prior to approaching universities and will then go to the university to generate validating data. In this case, universities may find themselves doing research within the scope of an existing patent portfolio so the issue of ownership may become moot.
33-F	Je suis entièrement d'accord sur le contrôle de la PI par l'université et ses chercheurs. Cependant, il faut rester ouvert. Si jamais des situations particulières se présentent, la cession de la PI pourrait être envisagée en tenant comptes des intérêts économiques ou autres de toutes les parties.
	PUBLIC
41	Don't know what the Expert Panel is for or what their mandate is. Who do they represent?
109	By and large the issues of IP ownership are complex and not necessarily the barrier - NSERC's current policy is the excuse universities use to be overly demanding of a potential licensee. Many issues could be resolved quickly with process improvements - have a simple licensing agreement that is standard across institutions, have 2 - 3 standard license fee option (e.g. 1% royalty). Overall, does a much better job of making institutions release the technology where there is demand.
142	NSERC must be contribute at the same level when we have a joint venture with a company or a university outside form Canada
144	I just wish to emphasize that the current policy in stipulating that foreground IP must be owned by the researcher and/or his/her institution (and is not assignable to any 3rd party) can oftentimes create a disconnect with the objectives of ensuring freedom to publish and freedom to continue and progress research. In a number of cases, university policies (and collective agreements) stipulate that foreground IP is to be owned jointly by the university and the staff member or solely by the university. In either scenario, the researcher can become restricted to continue the research should he/she leaves that particular university (e.g. joint ownership oftentimes means undivided ownership and one owner cannot do anything with the foreground IP without the consent of the other owner(s)). Correspondingly, one should consider better protection for the individual researchers/inventors, as opposed as for their institutions/universities. I also believe that consideration should be given to potentially allow assignment of ownership (at least in part) to Canadian-owned industrial partners so that the foreground IP can be protected, enforced, and commercialized, more efficiently, whilst at the same time, the interests of our Canadian researchers/inventors are also protected (and remunerated). This can result in Canadian IP being better protected, more Canadian IP being protected, and overall Canada being more competitive in the global market place. Side effects to this may be that the researchers/inventors can now more closely associate their inventions with the commercial milieu (becomes more entrepreneurial) and that the researchers/inventors can be better remunerated for their inventions (and incentivized) in Canada. All in all, whilst I believe that universities' tech transfer offices are becoming more and more sophisticated, their resources are still nonetheless limited (especially in respect of commercial matters) vs. those in



	<p>the industry whose bread and butter is to live and breath commercialization every day. As also mentioned, the foregoing is not intended to necessarily cover, and may not apply to, grant situations where industrial money is provided specifically as student stipend. Last, but not least, thank you again for allowing this opportunity for me to participate, and please do not hesitate to contact me should you need anything further.</p>
179	<p>It is important to keep in mind that it is not only the patentable IP that is of great value to industry, but often enough comparatively simple ideas or approaches that help the company overcome hurdles and move the research and development forward at a critical time.</p>
21-F	<p>Ce qui limite actuellement les ententes entre les universités et les entreprises, ce n'est pas tant l'accès aux droits de PI et/ou de licence comme le temps nécessaire aux négociations des ententes. Il n'est pas rare de voir des délais de 2 ans pour négocier des ententes de partenariat impliquant des chaires ou des RDC principalement si les ententes impliquent plusieurs partenaires. Le CRSNG devrait porter une attention particulière à fournir des ententes-types et des lignes directrices claires qui fassent en sorte que les ententes se négocient rapidement (moins de 6 mois).</p>