

Exclusive license vs. ownership of IP

Intellectual Property (IP) is a sensitive and often cleaving topic. I have already addressed the topic on the blog startup-book.com. But even once the general value of IP is addressed, there are tons of secondary issues. One is the specific question of how ownership of IP by a startup vs. an exclusive license granted by an academic institution is considered, in particular by investors. On January 27, 2022, I send an short email to 300+ investors as described in the appendix and I got about a 10% response rate. In parallel, I mentioned the topic on my LinkedIn account and I got additional comments, which are also listed in the appendix. Although, there is a rich argumentation about pros and cons of both situations, so that the reader may want to have a careful look below, here is my synthetic understanding:

There is no fundamental difference between license and transfer from the point of view of the startup in its strategy, except what happens in the event of bankruptcy or liquidation. The license is not an asset and therefore the intellectual property is no longer usable. With this nuance, admittedly significant, there are two additional points:

- Some investors think that the owner pays for the maintenance of the IP and suits the possible "infringers" to defend this property. I don't think that's the case because in my experience it's the licensee who does that.
 - In case of a trade sale, it is important that the license can be transmitted and this is a major item, that is to be guaranteed. There maybe political or strategic issues though.
- Finally, a price for the transfer may be added when or if possible.
There is no doubt that the reputation of the institution and the stability of these acts are essential.

Licence exclusive ou possession de la PI

La propriété intellectuelle (PI) est un sujet sensible et souvent clivant. J'ai déjà abordé le sujet sur le blog startup-book.com. Mais même une fois que la valeur générale de la propriété intellectuelle est abordée, il existe des tonnes de problèmes secondaires. L'un est la question spécifique de savoir comment la possession de la propriété intellectuelle par une startup par rapport à une licence exclusive accordée par une institution académique est considérée, en particulier par les investisseurs. Le 27 janvier 2022, j'ai envoyé un court e-mail à plus de 300 investisseurs, comme décrit dans l'annexe, et j'ai obtenu un taux de réponse d'environ 10 %. En parallèle, j'ai évoqué le sujet sur mon compte LinkedIn et j'ai reçu des commentaires complémentaires, également listés en annexe. Bien qu'il existe une riche argumentation sur les avantages et les inconvénients des deux situations, si bien que le lecteur pourra vouloir jeter un coup d'œil attentif ci-dessous, voici ma compréhension synthétique :

Il n'y a pas de différence fondamentale entre licence et cession du point de vue de la startup dans sa stratégie, si ce n'est ce qu'il advient en cas de faillite ou liquidation. La licence n'est pas un actif et donc la propriété intellectuelle n'est plus utilisable. Avec cette nuance, certes de taille, il y a deux points complémentaires :

- Certains investisseurs pensent que le propriétaire paie la maintenance de la PI et poursuit les éventuels « infringers » pour défendre cette propriété. Je ne crois pas que ce soit le cas car dans mon expérience c'est le licencié qui agit ainsi.
 - Dans le cas d'une vente (acquisition de la startup par un tiers), il est important que la licence puisse être transmise et c'est un élément majeur, qui doit être garanti. Il peut cependant y avoir des problèmes politiques ou stratégiques.
- Enfin, un prix pour le transfert peut être ajouté quand ou si possible.
Il ne fait aucun doute que la réputation de l'institution et la stabilité de ces actes sont essentiels.

Appendix – la liste complète des réponses, the full list of answers.

Comme suite à un message envoyé en français comme en anglais, à savoir
« Si vous avez quelques secondes à me consacrer, j'aimerais avoir votre sentiment sur un sujet simple : en quoi une licence exclusive sur de la propriété intellectuelle (PI) accordée (tous domaines, toutes géographies, sur sa durée vie) par une institution académique vous semblerait-elle plus problématique qu'une cession de cette PI ? La startup est-elle plus en situation de faiblesse ? (Les américains à travers le Bayh-Dole Act ne semblent pas avoir ce genre de problème et même Google n'avait sans doute qu'une licence de son brevet accordée par l'université de Stanford). Merci de me répondre aussi brièvement que vous le souhaitez... »

"If you have a few seconds for me, I would like to have your opinion on a simple subject: how would an exclusive license on intellectual property (IP) granted (all fields, all geographies, over its lifetime) by an academic institution seem more problematic to you than the assignment of IP to a startup? Would the startup be in a weaker position? (The Americans through the Bayh-Dole Act don't seem to have this kind of problem and even Google probably only had a license of its patent granted by Stanford University)."

Voici la liste des réponses, here the full list of answers (translated in English when given in French)

1- Moi ça ne me semblerait pas un problème car assez équivalent. D'ailleurs on vient d'investir dans une startup basée sur une licence exclusive de PI. *[For me, it would not seem a problem because fairly equivalent. Moreover, we have just invested in a startup based on an exclusive IP license.]*

2- Aucun problème SI

- C'est une vraie licence sans contraintes déraisonnables (le diable est dans les détails)
- Elle est signée d'un seul réel mandataire, qui a tout pouvoir pour agir seul au nom de l'ensemble des co propriétaires
- Les règles de copropriété ne font pas resurgir l'ensemble des copropriétaires en cas de litige sur la PI (je crois que ce n'est pas possible en réalité).

Le problème n'est pas en France licence vs cession, mais co-propriété multiple et « faux » mandataire. *[No problem IF*

- It's a real license without unreasonable constraints (the devil is in the details)

- It is signed by a single real agent, who has all the power to act alone on behalf of all the co-owners

- The co-ownership rules do not make all the co-owners reappear in the event of a dispute over IP (I believe that this is not possible in reality).

The problem in France is not license vs assignment, but multiple co-ownership and "false" agent.]

3- Si on rajoute "sans clause de changement de contrôle et avec un cap sur les royalties ou un moyen de racheter les royalties" alors on s'en approche, mais si on met tout ça, pourquoi ne pas céder ? La cession sera toujours plus rassurante pour un acquéreur. Ou une option de cession contre le paiement de X qui représente de facto un cap sur les Royalties. [puis] le cap sur les royalties est plutôt en cas de succès, l'assiette de royalties est toujours dure à déterminer et un cap / une option de rachat permet à l'acquéreur de nettoyer le passif. *[If we add "without a change of control clause and with a cap on royalties or a way to buy back royalties" then we come close, but if we put all that in, why not give in? The sale will always be more reassuring for a buyer. Or a transfer option against the payment of X which represents a de facto cap on the Royalties. [then] the cap on royalties is rather in the event of success, the royalty base is always hard to determine and a cap / buy-back option allows the acquirer to clean up the liabilities.]*

4- Si c'est une licence perpétuelle non onéreuse, et transférable cela pose aucun problème. En revanche, dans ce cas, je ne comprendrais pas l'intérêt de l'institution académique qui va devoir payer des frais de maintenance et n'en tirer aucun bénéfice. Si la licence est onéreuse il est bien évident que cela finira par poser un problème ; il vaut alors mieux laisser une option d'achat à l'entreprise. Si la licence n'est pas transférable elle ne présente aucun intérêt car l'entreprise ne pourra pas être cédée. *[If it is a non-expensive perpetual license, and transferable it poses no problem. On the other hand, in this case, I would not understand the interest of the academic institution which will have to pay maintenance costs and derive no benefit from it. If the license is expensive it is obvious that this will end up being a problem; it is then better to leave a purchase option to the company. If the license is not transferable it is of no interest because the company cannot be transferred.]*

5- 2 upsides (pour la start-up) à mon avis en faveur de la propriété pure et simple :

- Le mérite de la simplicité en cas de valorisation de l'asset (acquisition, IPO...) : pas de DD à faire sur le contrat, pas de perception (erronée ou pas) du risque sur ce contrat par des avocats trop zélés éventuellement
- Elimination du risque de mauvais comportement de l'institution : non respect du contrat, particulièrement pour les institutions publiques en cas de pression politique, car pas de peur de responsabilité devant un litige commercial (cas vécu en 2020...)

Pas de downside pour la start-up en dehors du coût éventuel. *[2 upsides (for the start-up) in my opinion in favor of outright ownership:*

- The merit of simplicity in the event of valuation of the asset (acquisition, IPO...): no DD to be made on the contract, no perception (erroneous or not) of the risk on this contract by possibly overzealous lawyers

- Elimination of the risk of bad behavior by the institution: non-compliance with the contract, particularly for public institutions in the event of political pressure, because no fear of liability in the face of a commercial dispute (case experienced in 2020, etc.)

No downside for the start-up apart from the possible cost.]

6- The exclusive license that universities grant to companies often includes a clause that says if the company doesn't commercialize the IP within X years, the exclusivity expires. Assignment of the IP relieves the university of the cost and burden of maintaining the patent and is usually independent of the payback to the university (equity or royalties). As investors we are indifferent to that but we do care about equity versus royalties.

7- Les investisseurs préfèrent toujours être propriétaires de la IP. Une licence exclusive illimitée n'est pas différente, sauf au niveau « perception » ou « optics » comme disent les Américains. Pas rationnel au plan économique, mais compréhensible à un certain niveau au plan marketing etc. *[Investors always prefer to own the IP. An unlimited exclusive license is no different, except at the "perception" or "optics" level as the Americans say. Not rational from an economic point of view, but understandable on a certain level from a marketing point of view etc.]*

8- Ce n'est de mon point de vue pas un problème au moment de l'investissement dans la startup tant que la cession de la PI ou le transfert de la licence ne peut être bloqué in fine par l'institution que pour des motifs impérieux et légitimes (conflit armé, éthique etc). Le CEA en France est coutumier de cette approche et j'ai de nombreux exemples. *[From my point of view, this is not a problem at the time of investment in the startup as long as the assignment of the IP or the transfer of the license can only be blocked in fine by the institution for compelling reasons and legitimate (armed conflict, ethics, etc.). The CEA in France is accustomed to this approach and I have many examples.]*

9- Pour XXX, on avait une licence exclusive, mais j'avais demandé si on pouvait avoir une option d'achat qui nous avait été accordée. Je présume que si la startup veut revendre plus

tard sa PI, il vaut mieux qu'elle la possède ; d'un autre côté, c'est justement ce que l'institution académique ne souhaite pas. [For XXX, we had an exclusive license, but I had asked you if we could have a purchase option that had been granted to us. I assume that if the startup wants to resell its IP later, it is better that it owns it; on the other hand, this is precisely what the academic institution does not want.]

10- Some acquirers of startups want to have the ownership of the IP and therefore the agreement between startup and academic institution would be optimized when containing an option for the startup to buy the IP at pre-defined conditions.

11- I am not an expert on the matter of IP licensing I am afraid. Not my cup of tea.

12- It is always better to have the rights assigned and pay the university whatever tax they need. A license does not give you the right to assert intellectual property aims. You would need to ask then to do it and they might not. Why would the university need the IP anyway, as long as they are paid? Some of the biggest wins in history are from people who own the IP.

13- I think it is more preferable to have the full assignment but if the terms of the license are airtight, it can work. In particular the questions of liability and assignment need to be equivalent to what the company would see if it was a full grant. The fact that it is a foreign institution would make the US investors and acquirers all the more nervous though.

14- J'ai interrogé un spécialiste de la propriété intellectuelle. Selon lui, dans les deux cas il faut prévoir le périmètre assez précisément (le droit de céder, de traduire, de l'exploiter sur tous supports...). C'est à peu près la seule différence. Un investisseur peut se sentir plus confortable avec une cession pure et simple, mais en réalité l'exploitant de la propriété intellectuelle doit prévoir tous ces contours. *[I interviewed an intellectual property specialist. According to him, in both cases it is necessary to plan the perimeter quite precisely (the right to transfer, to translate, to exploit it on all media, etc.). That's about the only difference. An investor may feel more comfortable with an outright assignment, but in reality the operator of the intellectual property must foresee all these contours.]*

15- It is harder if the university controls the IP vs the company since it creates another layer of interactions needed and too many cooks in the kitchen when it comes to IP counsel etc. Also we find university tech transfer offices are quite adversarial vs company IP counsel, which does not help either.

16-Control. If you don't own your IP then you're reliant on the owner to pay the renewal fees and to deal with infringement. If a big co buys 100 startups each using IP from different universities then the potential for an IP screwup is significant - but they can trust Stanford & MIT. A small university TTO may only have 1 legal advisor - if (s)he's on holiday you'll have to wait to deal with any issue. Related reasons why I want to be a direct shareholder in startups and not via a fiduciary.

17- Quid du droit de sous-licence, et surtout de la cession de la licence sans condition (cf clause intuitu personae dans certains contrats) en cas de prise de contrôle ? J'évoque ce point car pour avoir été proche de l'écosystème XXX et des sociétés sous licence, cette clause génère souvent des discussions... *[What about the right to sub-license, and especially the unconditional transfer of the license (see intuitu personae clause in certain contracts) in the event of a takeover? I mention this point because having been close to the XXX ecosystem and licensed companies, this clause often generates discussions...]*

18- On est sur un des sujets les plus clivants que je connaisse dans le monde du VC. De façon rationnelle cette licence exclusive a l'avantage :

- De limiter au départ les frais (si bien sûr l'organisme ne facture pas tout à la société),
- De bénéficier d'un partenaire qui pourrait contribuer également à la défense des intérêts du périmètre de licence,
- De rassurer les tiers, car une structure a en gestion ces droits, avec une gestion rationnelle, avec des réels contre-pouvoirs, et d'une certaine stabilité dans le temps,
- Elle a quasiment la même valeur comptable,
- Elle n'enlève aucune protection particulière pour la start-up.

Elle peut avoir des inconvénients mis en avant par les détracteurs :

- Si le niveau de redevances devient insupportable par rapport à la rentabilité,
- Elle n'offre peu de flexibilité/est difficile à céder sa valeur.

C'est pour cela que cela ne dérange pas de gros acteurs en particulier américains qui n'ont cessé d'augmenter le périmètre de leur portefeuille de brevets avec une certaine continuité. Elle peut être considérée comme nuisible pour des groupes industriels plus versatiles, en faisant évoluer en permanence leur périmètre d'activité, avec une culture de la rentabilité forte. Mais si on regarde la position d'une start-up sur un marché, la couverture est la même. Parfois pour concilier les deux visions, une clause d'acquisition est incluse dans le contrat pour rendre cette flexibilité et pour permettre un optimum de la rentabilité. Le souci c'est que les institutions académiques n'en ont pas la culture, et le niveau de prix affiché (car elle est toujours calculée sur une longue période avec des hypothèses hautes) est prohibitif, ce qui ne rend plus le service qu'il devrait rendre. En tout cas question épineuse, ce qui fait que les 2/3 des investisseurs considèrent que cela ne pose pas de problème, et que 1/3 ne souhaitent pas rentrer dans des sociétés qui dépendent d'une licence. *[We are on one of the most divisive subjects that I know in the world of VC. In a rational way, this exclusive license has the advantage:*

- *To limit the costs at the outset (if of course the organization does not re-invoice everything to the company),*
- *To benefit from a partner who could also contribute to the defense of the interests of the scope of the license,*
- *To reassure third parties, because a structure manages these rights, with rational management, with real checks and balances, and with a certain stability over time,*
- *It has almost the same book value,*
- *It does not remove any particular protection for the start-up.*

It can have disadvantages put forward by detractors:

- *If the level of royalties becomes unbearable in relation to profitability,*
- *It offers little flexibility/is difficult to sell its value.*

This is why it does not bother big players, especially Americans, who are constantly increasing the scope of their patent portfolio with a certain continuity. It can be considered harmful for more versatile industrial groups, by constantly changing their scope of activity, with a culture of strong profitability. But if we look at the position of a start-up in a market, the coverage is the same. Sometimes to reconcile the two visions, an acquisition clause is included in the contract to make this flexibility and to allow optimum profitability. The concern is that academic institutions do not have the culture, and the price level displayed (because it is always calculated over a long period with high assumptions) is prohibitive, which only provides the service he should give back. In any case, a thorny question, which means that 2/3 of investors consider that this does not pose a problem, and that 1/3 do not wish to enter companies that depend on a license.]

19- I am not an expert on this, but, the difference seems to be in case of change of control. When you grant the license to use, even exclusively etc, do you also grant it to an entity that would buy or merge with the company? If not, then, in case of change of control, they become less valuable. Similarly, in case of exclusive license, does the licensee get the rights to further license the IP to a third party charging for it, or it has to get permission for it, if the

latter; again it is a weaker position. [Then a little later] Meant to say, potentially weaker position, depending on the nature of the IP and whether it is required to further grant right of users to others.

20- Not being an IP specialist, I do not see any problem IF the license is granted exclusively and unconditionally and if the contract is valid for a very long time - 20+ years - and can't be terminated prematurely by the license owners.

21- My experience:

- License is not a deal killer if the license fees are in an acceptable range (low single digit % on volume, e.g. revenue). Not easy to structure in reality because license taker's unwillingness to report volume.
- Assignment, therefore, would be preferable.

22- We see a difference as the management of enforcing & defending your rights remains typically with the ultimate owner of IP. If this is not Stanford but a third-rate laboratory, you should pause. However, an unrestricted, exclusively license would always be sufficient for us to invest in a company.

23- Pour ma part, je n'ai jamais eu d'a priori négatifs sur la détention de l'IP par un institut académique, à partir du moment, comme tu le présentes, que le transfert des droits est plein et entier. Au contraire, je pense que cela permet de garder un lien pour la start-up et de bénéficier, le cas échéant, de nouveaux développements pouvant être également transférés. *[For my part, I have never had negative preconceptions about the ownership of the IP by an academic institute, from the moment, as you present it, that the transfer of rights is full and complete. On the contrary, I think it helps to keep a link for the start-up and to benefit, if necessary, from new developments that can also be transferred.]*

24- En vrac ! Pour moi des différences peuvent exister sur les points suivants :

- Possibilités de sous licences
- En cas de faillite, possibilité de céder l'IP ?
- Clauses limitant potentiellement le transfert de licence en cas d'acquisition par un acteur étranger ?
- Royalties et paiements associés à la licence sont souvent indexés à des éléments futurs -> incertitude que l'on n'a pas en cas de transfert
- Les royalties indexées sur le revenu (et non le profit) imposent à la startup des paiements alors qu'elle n'est pas profitable -> risque supplémentaire en particulier en deeptech quand le chemin est long. [Plus tard] Je trouverai très intéressant de créer une sorte de document/charte "best practices" pour les TTO, Institutions de recherches, VC et fondateurs et une forme de "label" signalant les projets structurés en accord avec ce document ... Un cadre commun faciliterait les interactions des différents acteurs. Je suis intéressé par le résultat de votre sondage et potentiellement ouvert à de plus amples discussions sur le sujet... [A few thoughts! For me, differences may exist on the following points:
- Possibilities of sub-licenses
- In the event of bankruptcy, possibility of transferring the IP?
- Clauses potentially limiting the transfer of license in the event of acquisition by a foreign actor?
- Royalties and payments associated with the license are often indexed to future elements -> uncertainty that we do not have in the event of a transfer
- Royalties indexed to income (and not profit) impose payments on the startup when it is not profitable -> additional risk, especially in deeptech when the path is long. [Later] I will find it very interesting to create a sort of "best practices" document/charter for TTOs, Research Institutions, VCs and founders and a form of "label" indicating the projects structured in accordance with this document... A common framework would facilitate the interactions of

the different actors. I'm interested in the outcome of your survey and potentially open to further discussion on the subject...]

25- the startup doesn't need to have his own IP....but ideal would be that the startup has some exclusivity of the IP...for a specific market / business domain, geography and of course for a certain period (minimum 3 years).

26- Much stronger to have a full assignment because it grants total ownership of movement to the receiver This can also be managed with the best possible license, but I would always want full assignment.

27- We are on our side relatively neutral. But, to my experience, owning the IP sometimes facilitates M&As... Also, it can serve as collateral for loans, financing, etc... (even if personally hate it). This being said, I have made quite a few exclusive licenses and it never was a real issue. My feeling is that investors are somehow getting used to it in EU.

28- I do not have a "good" answer. We rarely have invested in startups that were incubated in the lab of a professor in the university. I believe that it is a legal topic that should be discussed with IP lawyers. The interesting question is the POV of potential buyers, do they see any limitation in IP assignment.

29- Not sure but I wonder if it is something to do with time. Is the exclusive license perpetual or is it just temporary? If it is the latter does it allow the startup to establish its presence and no longer depend on that IP to sustain its dominance. For example, if Stanford were to grant Google's 'exclusive license' to others today, it wouldn't hinder Google a bit. [Later] You have some sense of urgency to build a competitive advantage that rests in the product you derived from the license. As opposed to getting just revenue from the license.

30- Je dirais que les principales différences tournent autour :

- du caractère irrévocable ou non de la jouissance de la IP
- et de la dépendance réglementaire de l'IP (selon la nationalité de la société qui la détient) - par exemple un centre de recherche américain ayant accordé une licence exclusive a un groupe chinois, pourrait être dans l'obligation mettre un terme à une telle licence si la technologie en question tombait sous le coup du nouvel « act américain » restreignant l'export de technos sensibles. *[I would say that the main differences revolve around:*
- *whether or not the use of the IP is irrevocable*
- *and the regulatory dependence of the IP (depending on the nationality of the company that owns it) - for example an American research center having granted an exclusive license to a Chinese group, could be obliged to put an end to a such a license if the technology in question falls under the scope of the new "American act" restricting the export of sensitive technologies.]*

31- The only difference I have seen mentioned is in case of liquidation. The former has usually no value, the latter makes think that it has a value. Some investors or lenders are sensitive to it. It is mostly an emotional thing.

32- Regarding the IP: I have not dealt with European law, just the US. In the US, the deals I have negotiated with Stanford have all been licenses.

33- As long as the startup can use it freely, the ownership form doesn't matter. It is important that the academic institution does not own too much of the startup - say not more than 10%, in Sweden it's 0% and academic spinouts are still difficult to get started. Any academics involved in the startup either work (more than) full time and are committed to building a company for the next decade, or own *very* few shares.

34- Je ne suis pas un ultra spécialiste du sujet, mais j'aurais tendance en tant que VC à préférer quand même la licence en pleine propriété (un actif en pleine propriété de la startup dans ce cas). Le seul avantage que je verrai à la licence exclusive est que dans ce cas ce serait à l'institution académique en question de défendre le brevet, ce qui peut servir d'épouvantail à d'éventuels trolls des brevets. *[I'm not a super specialist on the subject, but I would tend as a VC to prefer the full ownership license anyway (a full ownership asset for the startup in this case). The only advantage I will see in the exclusive license is that in this case it would be up to the academic institution in question to defend the patent, which can serve as a scarecrow for potential patent trolls.]*

35- Dans mon expérience, le contrat de licence exclusive est standard. Les VCs sont sensibles aux taux de royalties, paiements de milestone en cash et à la capacité de la société d'agir en cas de conflit / litigation sans l'accord et les autorisations de l'université. Je me souviens avoir tué un deal d'une société où XXX avait 50% de la propriété d'un brevet et devait pouvoir agir en cas de conflit au tribunal sur cette PI. C'était en 2012 et cela semble avoir changé... *[In my experience, the exclusive license agreement is standard. VCs are sensitive to royalty rates, cash milestone payments and the ability of the company to act in the event of a dispute / litigation without the agreement and authorization of the university. I remember having killed a deal from a company where XXX had 50% ownership of a patent and had to be able to act in the event of a dispute in court over this IP. That was in 2012 and that seems to have changed...]*

Autres réponses – additional answers (LinkedIn)

1- De mon point de vue la licence exclusive est une pratique solide, à condition 1) qu'elle soit cessible (à l'exit) et 2) que le portefeuille soit bien géré (extensions, oppositions...) par l'établissement. En France, les établissements commencent à avoir une bonne expérience du sujet, et je n'ai pas vu de difficultés anormales lors d'une cession industrielle.

A contrario j'ai vu des startups deeptech être contraintes de se délester d'une partie de leur portefeuille en phases de crise de trésor, ce qui n'arrive pas si le portefeuille est en licence. De plus, les établissements ont les reins suffisamment solides pour accorder des délais de paiement qui peuvent être impressionnants quand on sait bien négocier. *[From my point of view, the exclusive license is a solid practice, provided 1) that it is transferable (on exit) and 2) that the portfolio is well managed (extensions, oppositions, etc.) by the establishment. In France, establishments are starting to have a good experience of the subject, and I have not seen any abnormal difficulties during an industrial transfer.*

On the contrary, I have seen deeptech startups being forced to offload part of their portfolio in phases of treasury crisis, which does not happen if the portfolio is licensed. In addition, the establishments are strong enough to grant payment delays which can be impressive when you know how to negotiate well.]

2- Je confirme les dires pour ce qu'est des licences exclusives accordées par des instituts ayant l'expertise nécessaire dans la gestion des brevets. D'un point de vue "start-up", le plus important sont les termes négociés de la licence. De mon expérience avec l'EPFL, nous avons un excellent accord (win-win) et qui dérange en rien nos investisseurs actuels. *[I confirm what is said for exclusive licenses granted by institutes with the necessary expertise in the management of patents. From a "start-up" point of view, the most important are the negotiated terms of the license. From my experience with EPFL, we have an excellent agreement (win-win) which in no way disturbs our current investors.]*

3- Et aussi longuement que nécessaire 😊... Suivant le domaine biotech, IT et peut-être même copyright, le droit diffère. Les droits sont multiples, droits moraux, droits patrimoniaux... La licence exclusive est peut-être moins solide que la propriété dans certains fors ? Et c'est un droit, donc un actif mais pour le pledge, la réalisation est sans doute beaucoup plus compliquée.... *[And as long as necessary 😊... Depending on the domain biotech, IT and maybe even copyright domain, the law differs. The rights are multiple, moral rights, property rights... The exclusive license is perhaps less solid than ownership in certain forums? And it's a right, so an asset but for the pledge, the realization is probably much more complicated....]*

4- Ce qui saute à l'œil c'est l'écart entre les réponses. Et tu as sûrement contacté des top investors. Expérience faite, lorsque ce sujet est traité avec certains corporate VC, surtout EU et CH, le niveau de compréhension est tellement bas que c'est très dangereux de même rentrer en matière. Ils confondent transfert de licence, transfert des brevets, contrôle du brevet pour un éventuel « enforcement », avec ou sans royalties. Mais effectivement le transfert de la licence semble être un minimum. Nous allons bientôt l'intégrer dans notre nouveau modèle de licence (jusqu'à aujourd'hui le transfert n'était pas possible). Suite à analyse de licence d'autres top universités US, certaines demandent un paiement cash pour le transfert de la licence, typiquement 200-500k Ensuite la licence continue aux mêmes conditions. Au lieu d'un paiement cash, nous avons choisi par défaut que le transfert est possible sous 3 conditions 1) exit, 2) les milestones ont été atteints 3) l'entreprise a levé au moins x mio (à définir). Ces 3 conditions nous semblent bien mesurer une création de valeur de la part de la start-up, avant « transfert ». *[What jumps to the eye is the gap between the answers. And you've probably contacted top investors. Experience made, when this subject is treated with some corporate VC, especially EU and CH, the level of understanding is so low that it is very dangerous to even go into the matter. They confuse license transfer, patent transfer, patent control for possible "enforcement", with or without royalties. But actually the*

transfer of the license seems to be a minimum. We will soon integrate it into our new licensing model (until today the transfer was not possible). Following license analysis of other top US universities, some require cash payment for the license transfer, typically 200-500k. Then the license continues under the same conditions. Instead of a cash payment, we have chosen by default that the transfer is possible under 3 conditions 1) exit, 2) the milestones have been reached 3) the company has raised at least x mio (to be defined). These 3 conditions seem to us to measure value creation on the part of the start-up, before "transfer".]

5- Je vote pour la cession. En propriété industrielle, La licence exclusive comporte une obligation pour le titulaire, théorique, consistant à devoir valoriser l'invention. *[I vote for cession. In industrial property, the exclusive license includes an obligation for the holder, theoretical, consisting in having to value the invention.]*

6- My 2 cents: Bayh-Dole gave fantastic protection in US - "I would love to assign the IP to you. But, that would break a few federal laws". That got assignment off the table.

Everywhere else: Almost every licensee would love to get the assignment of the IP (with milestone triggers). When said no, especially to US companies, that they would not be able to get this in the US, the answer was "Well, you are not in the US". Once you assign even with grant back clauses, the IP is never coming back. Either you get tied up in litigation and then with creditors if the startup is in administration/liquidation.

Reality: this is the case study everyone reads about. Not sure how many TTOs actually have had problems with this situation.

Control: Exclusive licenses are revocable. Termination of the license is a real possibility. So, with assignment the startups take out the control of the institute to re-neg any promises. And, obviously the institutes don't like the loss of control. If the argument is on IP improvements or outside the original use case (If the base IP is assigned, then the control goes to the assignee and would need to request their permission).

Reality: why not license the improvements to them. You might lose a few points on the revenue but the IP is stronger. Better if you had equity, the valuation of the startup (might be) is better because of the new IP assigned to them.

If you trust the institution - > track record of treating founders, sound IP protection practices - then exclusive vs assignment is moot.

7- La licence va créer une relation long terme, la vente non. L'originateur de l'IP devrait se déterminer sur la dimension stratégique de l'invention pour son développement futur afin de décider s'il reste dans le jeu ou pas. Une bonne idée en amène toujours une autre ! *[The license will create a long-term relationship, the sale will not. The originator of the IP should determine the strategic dimension of the invention for its future development in order to decide whether it remains in the game or not. A good idea always leads to another!]*

8- En général, une licence exclusive pourra être intéressante pour une startup dans un premier temps car cela est maintenu et défendu par l'institution publique. Le prix aussi pourra être élevé pour une cession pour la startup. Par contre, c'est sûr que si la startup intègre dans son BP le prix d'achat immédiat du brevet, ça sera l'idéal car les organismes publics chercheront à valoriser leur investissement de recherche dans l'immédiat. Au futur, des partenaires industriels obligeront la startup d'acheter la PI pour signer des collabs avec la startup. Il faut avoir une vraie stratégie de protection de la PI bien réfléchi. *[In general, an exclusive license may be interesting for a startup at first because it is maintained and defended by the public institution. The price may also be high for an assignment for the startup. On the other hand, it is certain that if the startup includes in its BP the immediate purchase price of the patent, it will be ideal because public bodies will seek to value their research investment immediately. In the future, industrial partners will force the startup to buy the IP to sign collaborations with the startup. You need to have a real, well-thought-out IP protection strategy.]*

9- Depends; what's the commitment of owner of IP (licensor) towards licensee in defending the licensor towards infringers? what are the realistic resources available for licensee (start-up) to take over the market and does the assignment boost the resources (funding) really? Funders obviously want to see the IP assigned to the company - as if it goes to bankruptcy, the IP is often only asset that can be monetized. On the other hand, if funder is really interested to create impact through that particular opportunity and trust is there, this shouldn't be a problem. Licensor should probably at own end consider, is this IP necessary in the future development projects as background and/or if given out with exclusive license, is it after five years valuable still or merely a seed of history that was circumvented in trillion different ways.

10- Nous, nous avons assortis la licence exclusive d'une option de cession ainsi nous sommes entre licence et ownership. *[We have combined the exclusive license with a transfer option so we are between license and ownership.]*

11- Here are my 2 cents. It depends whose perspective you are looking at this from, and the academic center and its tech transfer department's philosophy of why they exist: is it to primarily help generate jobs and start-ups, or is it to issue and control IP as a business? This is a bit of an apples to oranges comparison. IP today has much greater versatility than in the past, and ownership provides much more flexibility (e.g., being able to pledge and securitize intangible assets, and as capitalization on a start-up balance sheet -- which makes a big difference in Switzerland). I am not sure a Bayh-Dole comparison works, as US-funded research raises a bundle of issues that is not comparable to the situation in other countries, and the US system (with its pros and cons) has a far more robust IP economy. I submit that academic institutions should at the very least provide the ability for the exclusive licensee to be able to obtain outright ownership, as not being able to do so can create major complications in some industries. From the start-up's perspective and that of investors, an assignment is clearly preferable, and if the academic entity has an equity interest in the start-up, the interests are also better aligned.

12- A long blog article does not really address the topic, but the broader one of the relationships between TTOS and spinoffs. <https://www.airstreet.com/blog/spinouts>

13- The real problem I see.... is the patent system... let's face it: a patent is not really useful for a startup. And a potential liability to a founder. (Unless you have a small molecule, easy to replicate should the knowledge leak out, and that any change would result in a significant difference) For the rest, the cost of patenting, are prohibitive, and enforcing the patent very difficult. If an academic institution, bears the cost of patenting, grants a license, and takes care of running after infringers to defend its own interest.... then it is worth it. And it should be the system in place. Allowing founders to build the company, and not on protecting their patents (which they can't)....

14- As soon as a company can continue the prosecution of a patent in its best interest (choosing countries, protecting the product features, etc.), is able to defend its exclusivity rights (being able to exercise the negative rights attached to a patent) and finally that the license is assignable, i do not see any difference on the name of the assignee. Many established companies grant exclusive licenses and nothing prevents licensees to build their businesses. In reality this question of ownership is only raised by VCs because of royalties. The same VCs making deals with US companies facing the Bayh-Dole act, when they are operating in Europe, ask for full ownership then to buy-out the patents for a lump-sum. For them is a two-fold advantage. Either they get rid of royalties or they lower the company valuation.

15- One point to consider may also be the incentive of the inventor to file IP for the university. If a university is too restrictive granting IP to startups, inventors may decide not to file / expose ideas before they found their startup.