

以技轉為出發點的 專利實務觀念介紹

2019 @核能研究所



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現任巨群國際專利商標法律事務所技術總監。

曾任華碩電腦與和碩科技智權管理部主管，負責全球專利授權談判、跨國授權管理、全球專利申請布局與管理、公司內部智財系統與流程建置、智財相關合約條款審閱、以及專業教育訓練等。

曾任專利事務所專利代理人，為客戶處理全球專利商標申請業務。

台灣大學機械研究所畢業、東吳法律專業碩士班進修。



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序論：研發機構專利管理的目的

“Ideas and innovations flow steadily from MIT into the marketplace. With the startup companies they launch and nurture, our faculty, students and alumni transform great innovations into a vital force for economic growth. Through the drive and ingenuity of MIT entrepreneurs—and the ecosystem the Institute offers to help them thrive—startups constitute a powerful way that MIT serves the region, the nation and the world.”

[MIT Inventor’s Guide to Startups](#)

The NIH contributes to the affordability of inventions and products by conducting and funding medical research that may eventually lead to the development of new drugs and devices and, ultimately, significant improvements in human health and the quality of life.

[NIH Report to Congress on Affordability of Inventions and Products \(July 2004\)](#)

106年度民專上字第2號

綜上所述，系爭專利1、6 係依系爭合約產生之專利，上訴人已依系爭合約將系爭專利1、6 移轉交付予被上訴人，被上訴人並於系爭合約期間內，將系爭專利1、6 之智慧財產權移轉予第三人生控公司，**惟第三人生控公司並非被上訴人利用系爭專利1、6 設立之生物製劑工廠或研究室**，故上訴人依系爭合約第5 條前段，請求被上訴人給付生控公司之已發行股份6,265,000 股予上訴人，並按日給付總額千分之五之違約金，不應准許……。

研發機構專利管理的目的：
建立永續的公眾貢獻循環



<https://autmfoundation.com/about/technology-transfer-impact/>

關於專利產出的議題討論

常見問題

怎麼產出新發明？

從發明提案到專利申請應該注意甚麼？

真實發明人問題

專利的新穎性 / 進步性問題

「可據以實現」



<https://www.triz.co.uk/training-developing-products-and-patent-triz>

104年度民專上字第22號

「被上訴人提出之原證8 所示眼鏡(7184與9184)之開發歷程，亦為上訴人穎欣公司以 Email 提供給亦達公司留存之資料，……，惟原證8 第6 頁係標示「2010年1 月亦達建議更改結構設計」之文字，可認建議更改結構設計為亦達公司人員，雖被上訴人為亦達公司之代表人(原審卷第20頁)，但尚難證明原證8 簡報第6 頁所載變更之設計係出自被上訴人之構想。」

「又證人○○○雖證稱：「當天與穎欣公司開會的時候，蔡銘祥有在黑板上畫出示意圖，解釋類似S 形的結構，可以解決衝擊及戴上的問題」……，惟上訴人質疑其真實性，且被上訴人就證人○○○之證言之真實性無法提出其他佐證供參酌……。準此，單憑證人○○○之上開證詞尚不足以證明原證8第6頁所示之變更設計為被上訴人所提出之構想。」

試試最基本的專利檢索



United States Court of Appeals for the Federal Circuit

TRUSTEES OF BOSTON UNIVERSITY,
Plaintiff-Cross-Appellant

v.

EVERLIGHT ELECTRONICS CO., LTD.,
EVERLIGHT AMERICAS, INC., EPISTAR
CORPORATION, LITE-ON INC., LITE-ON SERVICE
USA, INC., LITE-ON TECHNOLOGY
CORPORATION, LITE-ON TRADING USA, INC.,
Defendants-Appellants

2016-2576, 2016-2577, 2016-2578, 2016-2579, 2016-2580,
2016-2581, 2016-2582, 2016-2591, 2016-2592, 2016-2593,
2016-2594, 2016-2595

Appeals from the United States District Court for the
District of Massachusetts in Nos. 1:12-cv-11935-PBS,
1:12-cv-12326-PBS, 1:12-cv-12330-PBS, Judge Patti B.
Saris.

Decided: July 25, 2018

We note finally that, to some extent, BU created its own enablement problem. BU sought a construction of “a non-single crystalline buffer layer” that included a purely amorphous layer. *See* J.A. 253–54 (reciting BU’s proposed construction as “*a layer of material that is not monocrystalline*, located between the first substrate and the first growth layer” (emphasis added)). Having obtained a claim construction that included a purely amorphous layer within the scope of the claim, BU then needed to successfully defend against an enablement challenge as to the claim’s full scope. *See Liebel-Flarsheim*, 481 F.3d at 1380. Put differently: if BU wanted to exclude others from what it regarded as its invention, its patent needed to teach the public how to make and use that invention. That is “part of the *quid pro quo* of the patent bargain.” *Sitrick*, 516 F.3d at 999 (quoting *AK Steel*, 344 F.3d at 1244).

<http://www.cafc.uscourts.gov/sites/default/files/opinions-orders/16-2576.Opinion.7-25-2018.pdf>

先期技術價值評估與專利布局

$$\sum_{i=1}^7 \rho_i \sum_{t=1}^T \frac{DCF_i}{(1+r_d)^t} + \rho_7 \sum_{j=1}^5 q_j \sum_{t=1}^T \frac{CCF_{jt}}{(1+r_c)^t}$$

Risk adjusted Net Present Value

- Also called eNPV
- Method of choice for Big Pharma

Benefits:

- Helps understand accurate value and maximises deal options
- Adjusts value for **Development Risk** and **Discount rate**
 ⇒ Risk is split in two components
 - 1) Product Risk (attrition rate)
 - 2) General Risk (discount rate)

https://www.iprhelpdesk.eu/sites/default/files/events/Introduction%20to%20Product%20Valuation%20May%202015_0.pdf

eNPV Tech Valuation Model

FCF:

Free Cash Flow 自由現金流

DCF:

Discounted Cash Flow 折現現金流

NPV:

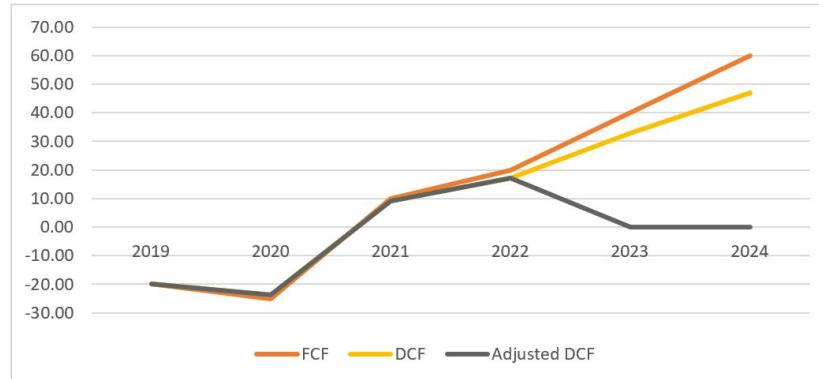
Net Present Value 淨現值

	2019	2020	2021	2022	2023	2024
Projected Year	1	2	3	4	5	6
FCF	-20.00	-25.00	10.00	20.00	40.00	60
Discount Factor	0.05	1.00	0.95	0.91	0.86	0.78
DCF	-20.00	-23.81	9.07	17.28	32.91	47.01

NPV 62.46

Success rate	100%	100%	100%	100%	0	0
Adjusted DCF	-20.00	-23.81	9.07	17.28	0.00	0.00

eNPV -17.46



IP-related Risks

Counterfeit

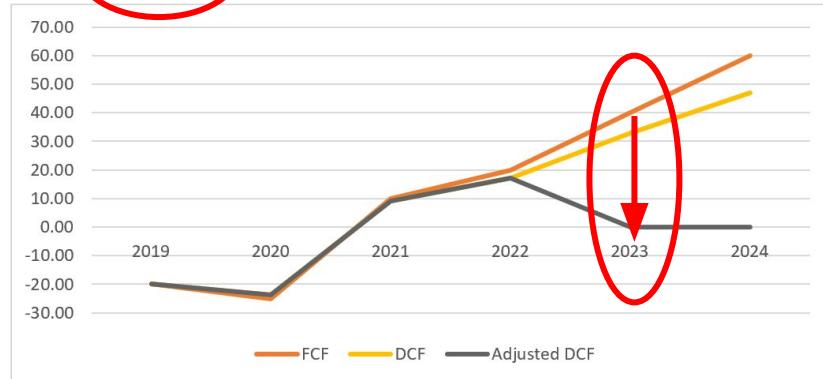
Patent infringement allegation
from major competitors

Projected Year	2019	2020	2021	2022	2023	2024
1	1	2	3	4	5	6
FCF	-20.00	-25.00	10.00	20.00	40.00	60
Discount Factor	0.05	1.00	0.95	0.91	0.86	0.82
DCF	-20.00	-23.81	9.07	17.28	32.91	47.01

NPV **62.46**

Success rate	100%	100%	100%	100%	0	0
Adjusted DCF	-20.00	-23.81	9.07	17.28	0.00	0.00

eNPV **-17.46**



Value-Driven IP Investment

Estimate the value of your technology (probably the NPV or 5-year FCF).

Determine how much should one invest in IP at the begining to reduce risks.



Waterfall v. Agile

Waterfall: less iterative and flexible

- Requirement / Design / Implementation / Verification / Maintenance

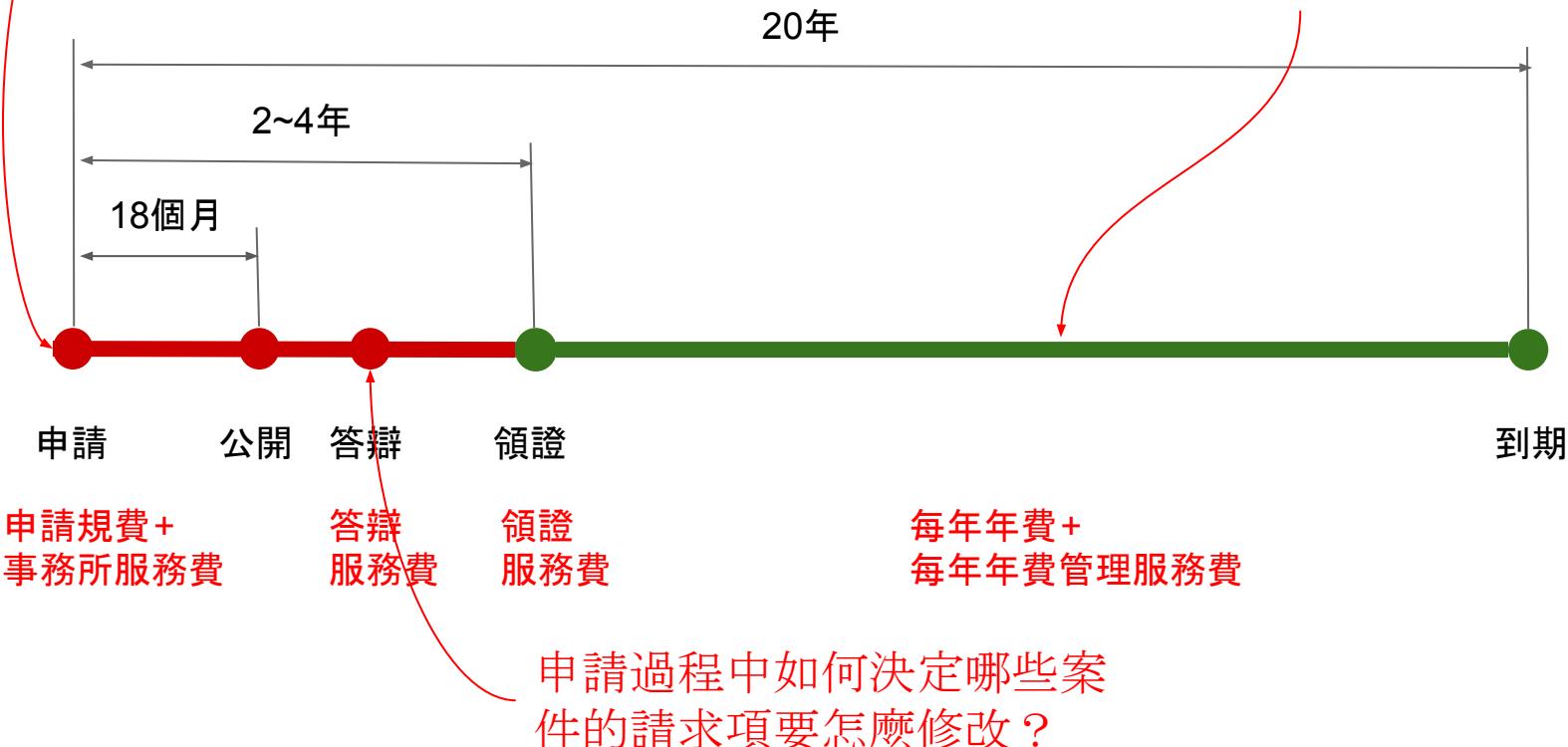
Agile: more adaptive and responsive to change

- Backlog / Sprint / Incremental delivery



一開始怎麼決定要花多少錢申請哪些國家？

已獲證的專利資產要怎麼做具成本意識的資產管理？



技轉合約協商要點

Key IPR Terms of a TTA

- Parties
- Licensed Technology
 - Pre-existing Rights
 - Future Improvement
- License Grant
 - Limitations
 - Exclusivity
 - Grant Back
 - Optional right to improvement
 - Sub-license Right
- Maintenance of Rights
- Representation and Warranty
- **Indemnification**
- Confidentiality
- Technical assistance
- **Payments**
- Term
- Termination
- General Clauses

Key Terms

- What technology?
- Who owns IP?
 - Pre-existing / Developed / Transferred
- What IP?
 - Patent / Trademark / Copyright / Trade Secret
- How to “transfer”?
 - Transfer of right / License / Consultant / Joint Development
- Any limitation?
 - Territorial / Product / Field-of-use

Key Terms (cont.)

- **Payment**

- How?
 - Initial payment
 - Running payment
 - Installments
 - Future profit sharing
 - Equity
- For What?
 - License fee
 - Consulting fee
 - Admin. fee
- **How Much?**



Example: Lambert Agreements

Research collaboration agreement	Terms	IPR
Agreement 1	Collaborator has non-exclusive rights to use in specified field/territory; no sub-licences	Institution
Agreement 2	Collaborator may negotiate further licence to some or all Institution IP	Institution
Agreement 3	Collaborator may negotiate for an assignment of some Institution IP	Institution
Agreement 4	Institution has right to use for non-commercial purposes	Collaborator
Agreement 4A	Each party has right to exploit certain results created during the project and takes assignment of those results. Institution has right to use for academic and research purposes, the Collaborator for research purposes	Institution and Collaborator
Agreement 5	Contract research: no publication by Institution without Collaborator's permission	Collaborator
Agreement 6	Institution has right to use for academic and research purposes	Collaborator

4.4 Guidance specific to collaboration agreement 4

In this Agreement the Collaborator owns the IPR in the Results.

The Institution assigns the IPR in the Results to the Collaborator, and the Collaborator grants a licence back of the Results so that the Institution can participate in the Project.

The Institution has the right to use the Results for Academic and Research Purposes, and Academic Publication is permitted.

The Parties will have to agree whether or not any warranty will be given in respect of the assignment in clause 7.10.

Clause 4.7 provides the possibility of the re-assignment of the IPR in the Results to the Institution, at the Institution's request, if the Collaborator is not exploiting or taking reasonable steps to exploit the Results. This is designed to prevent the Collaborator 'sitting on' the Results. The Collaborator may wish to consider any re-assignment being dependent on the reimbursement of costs incurred in registering any patents and on the Institution paying the Collaborator a revenue share in the event of the Institution successfully exploiting the IPR re-assigned to the Institution.

The Collaborator is unlikely to agree to this clause if the Results relate to its Background, Materials or Confidential Information.

<https://www.gov.uk/guidance/university-and-business-collaboration-agreements-lambert-toolkit>

Summary

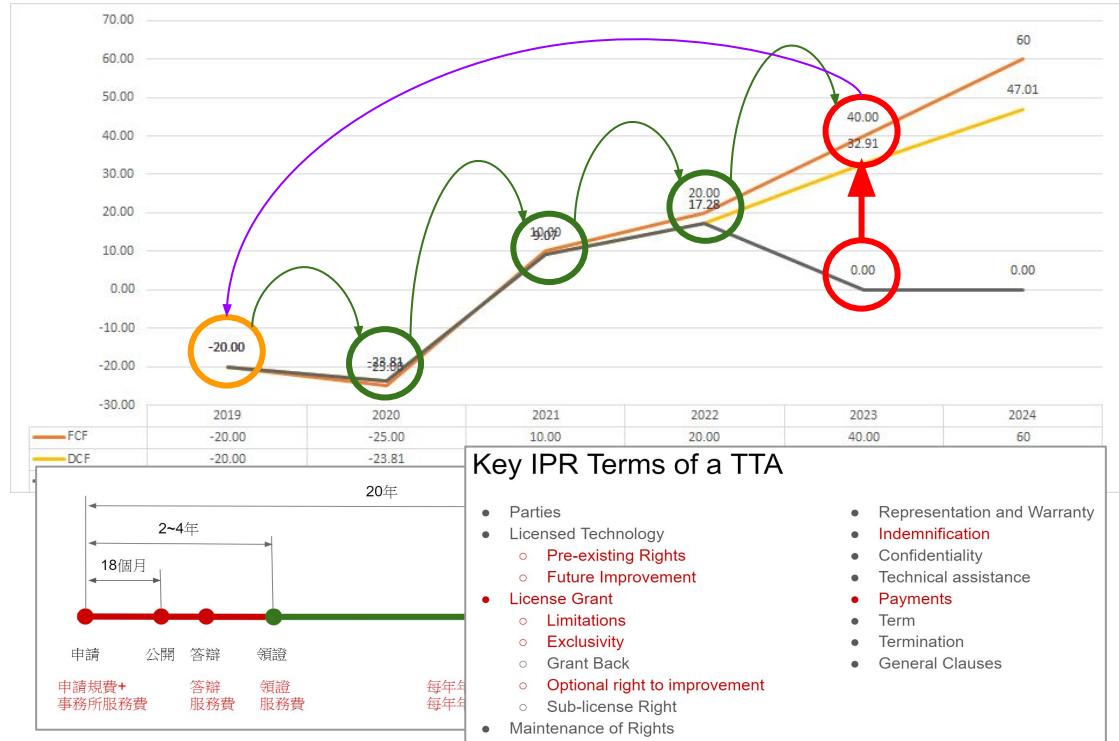
永續的 公眾貢獻循環

(1) Estimate the valuation of technology and be aware of IP risks

(2) Invest at the beginning to reduce IP risks

(3) Negotiate the collaboration model between business and academic entities

(3) Adaptive to change and adjust IP strategy accordingly



謝謝

Q & A