TII Summer School 2014, Tallinn, Estonia

Contractual issues in the technology transfer process between publicly funded research and private industry

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Trainer: Thomas G. Gering is a Senior Partner and Principal at the Intellectual Asset Management Corporation (IAM-Corp.) in Sarasota, USA. He also runs IAM-Corp.’s European office in Switzerland. At IAM-Corp., Thomas advises a number of clients in both Europe and the United States generally on issues associated with the commercialization of early-stage technology. He has over 25 years of experience in the field of innovation financing, business development and technology licensing. During this period, he and his colleagues at IAM have been involved in more than 500 concrete contract negotiation scenarios involving significant input into the drafting of such documents in various jurisdictions.

Thomas has previously taught Entrepreneurship at an International Business School (including work on the valuation of Intangible Assets such as Patents) and he has been involved in several hundred licensing and company start-up transactions in Europe, the United States, the Middle East and Japan. Thomas’ professional expertise comprises projects in the physical as well as the life-sciences. He is currently serving as a board member or senior advisor to the board of four different start-up companies in the US and Switzerland. Thomas also has extensive expertise in the field of trans-Atlantic patent litigation.

Thomas was formerly responsible for the licensing of the Intellectual Property (IP) portfolio of the Joint Research Center (JRC) of the European Union, and director of licensing at Fraunhofer, the now multinational research think tank based in Germany. He also founded and served as director of a technology licensing office for state universities in Germany. Thomas has published extensively on the issue of IP and its commercial exploitation by publicly financed research organisations, including universities. He is on the advisory board of Industry & Higher Education, a renowned international technology transfer journal. In recent years he has been on various assignments in the field of technology transfer for a number of international organisations, like e.g. OECD, the NATO science programme, the EU and the World Intellectual Property Organisation (WIPO).
Contractual Issues in the technology transfer process between publicly funded research and private industry

Objective and background:
More and more publicly funded intellectual property gets involved in patenting and other forms of protection, both in universities and government run research laboratories around the globe. But patenting or other forms of protection are only one step in the overall process of technology transfer to industrial application (whether in existing companies or risk capital funded new ventures) that is intended by public sponsors as a means to support the development of their economies. What can researchers disclose to potential business partners at what time and which forms of contractual documents does one use in order to maximize effectiveness while protecting the science base sufficiently?

Content:
- Negotiating technology transfer contracts, which legal/contractual steps is the process usually going through and why?
- Discussion of confidentiality agreements, term-sheets, letters of intent, options, co-operation agreements, material transfer agreements, what to do with start-ups etc., all the while using a smaller number of case studies and template contract wording
- The interaction of patent strategy and drafting contracts
- Speeding-up negotiation; open innovation?

This set of handouts contains about 2/3 of slides used during the course – sample contract language as well as certain case study information will be supplemented and made available to participants in Tallinn
Aligning Intellectual Assets

Business Vision

Business Strategies

Intellectual Asset Management Strategies

IA Strategic Framework

IP Objectives/Roles:
- Value Creation
- Value Extraction

Cash Value

Positioning Value
Some Working Definitions

Knowledge Management
The process by which the Organisation generates wealth from its knowledge or intellectual capital*

Intellectual Property (IP)
Legally protected intellectual assets

Intellectual Asset (IA)
Codified knowledge derived from IC with value potential

Intellectual Capital (IC)
Knowledge embodied in Human, Organisational, and Customer/Supplier Capital

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The Components of Intellectual Capital: A Spectrum of Knowledge Assets

When legally protected these are Intellectual Property
When codified these are Intellectual Assets

Most

Tangible

Least

Source: PricewaterhouseCoopers
What Is Intellectual Capital?

Intellectual Capital, knowledge that can be converted into profits, has two components:

Value Creation

Human Capital

Value Extraction

Intellectual Assets

Intellectual Property
The Interaction of Intangible and Tangible Assets to Create Earnings

- **Intellectual Capital (unique)**
  - Value Creation
  - Valued Assets
  - Intellectual Property

- **Complementary Business Assets (differentiated)**
  - Manufacturing Facilities
  - Distribution Capabilities
  - Sales Force

- **Structural Capital (generic)**
Converting IP Into Cash

- Invention
- Meets Market Need
- Yes: Adequate IP Protection Available? (No) → No
- No: Meets Market Need? (No) → Store

- Adapted from David Teece, 1986.
Managing an IA Portfolio

1. Know your IA portfolio
2. Know what it does for you
3. Know your future needs (derived from Business Strategy)
4. Grow the portfolio to meet your needs
5. Diligently manage, grow, prune, use and transact your portfolio.
Drivers for Exploiting
Intellectual Capital in Deals and Transactions.

1. New and enhanced revenue streams,
2. New market penetration,
3. Added value products and services,
4. Increased attractiveness to investors and stakeholders,
5. Increased or stronger market share,
6. The need to recruit and retain high value staff,
7. The need to improve job satisfaction,
8. The need to reposition the company.

WHY INTELLECTUAL ASSET MANAGEMENT?

1. The ability to achieve competitive advantage is increasingly derived from innovation, creativity and knowledge: IAM codifies and manages the knowledge base of organisations.

2. A guiding principle for managing intellectual assets: “If you can visualise it, and if you can measure it, you can manage it for continuous improvement and value”

Source: Gordon Petrash, Global Director ICM Dow Chemical 1996
The Identification and Management of Intellectual Assets

The approach is simple yet very powerful. The difficulty is connecting the right steps together to obtain a coherent process. Experience is the key. The steps are:

1. Identify and record the assets in an inventory.
2. Analyse how they support business and measure contribution.
3. Work out tactics to use them to support business aims or strategy.
4. Make sure that your management, operational and IT systems are sufficient and focused to deliver the correct approach and information.
5. Begin initiatives to extract and create value (e.g. sell product or spin out a company).
6. Communicate the significance of what has been achieved to stakeholders, owners, shareholders.
KEY IA COMPONENTS FOR YOUR COMPANY

1. This really depends on the focus of your activities.
2. **Patents and technology** for technology companies like EADS/Airbus ... but not only ... there may be brands.
3. **Brands** for consumer companies ....Persil, Coca Cola, Scottish Tourist Board ... but could be technology as well.
4. **Copyrights** for performing arts, publishing, recording or broadcasting (e.g. Madonna, David Bowie).
5. **Know how** for pure knowledge industries and consultancies.
6. **Software** for systems providers and software houses.
7. But of course this is a broad brush approach and the truth is often a combination of all these. It is essential to select the key components and manage them for value.
Sources and Conversions of Value

Sources of Value

- Innovations
- Complementary Business Assets
  - Purchasing
  - Manufacturing
  - Distribution
  - Sales

Conversion Mechanisms

- Sale
- Out-license
- Joint Venture
- Strategic Alliance
- Integrate with Current Business
- Create New Business
- Donate
- Barter/Trade
Two Ways to Extract Cash Value from IP

**Embedded Value**
The firm’s Human Capital develops innovations. These are codified, Protected, and embedded in the company’s products and services. The company extracts value from its innovations through the revenue it Receives from the sale of the products and services. IP’s primary purpose for these companies is to protect the innovations embedded in their products and services.

**Direct Value**
The IP the company develops to protect its innovations may itself have value. Companies may convert their IP directly into cash or some other form of value and extract this value directly by, for example, sale or licensing.
## IP As Business Assets

### Defensive

<table>
<thead>
<tr>
<th>Patents</th>
<th>Trademarks</th>
<th>Know-how/Trade Secrets</th>
<th>Relationships</th>
</tr>
</thead>
</table>
| - Protection (exclude others)  
- Design Freedom | - Protection (exclude others) | - Protection (trade secret) | |}

### Offensive

<table>
<thead>
<tr>
<th>Patents</th>
<th>Trademarks</th>
<th>Know-how/Trade Secrets</th>
<th>Relationships</th>
</tr>
</thead>
</table>
| - P&S: Sale, License, JV, SA, Integrate, Donate  
- Patents: Sale, License, Donate | - P&S: Sales  
- TM: Sale, License | - Sell, License, JV,SA, Integrate | - P&S: Sales |
| - Litigation Avoidance  
- Access the Technology of others | - Litigation Avoidance  
- Access the Technology of others | - Litigation Avoidance | - Reduced Marketing Costs |
| - Reputation / Image  
- Competitive Blocking  
- Barrier to Competition | - Name Recognition  
- Customer Loyalty  
- Barrier to Competition | - Reputation / Image  
- Barrier to Entry | - Reputation / Image  
- Customer Loyalty  
- Barrier to Entry |
An Intellectual Asset Management System

- **Vision**: Corporate Strategies
- **Intellectual Asset Management Strategies**: Value Creation, Value Extraction
- **Innovation Process**: Obtain Technology Internally, Obtain External Technology
- **Intellectual Asset Portfolios**: Value Creation, Value Extraction
- **Patenting Criteria and Decision Process**: Coarse Valuation of the Opportunity
- **Business Strategy and Tactics**: Product Market Matrix
- **Value Extraction Decision**: Simple Competitive Assessment, Cash Value, Positioning Value
A Hierarchy of IP Management

Visionary
(Drive Growth)

Integrated
(Manage for Growth)

Profit Center
(Manage for Profitability)

Cost Control
(Control Costs, Improve Productivity)

Defensive
(Build Portfolio, Protect Markets and Technology)
IP as a Generator of Cash Flow

- The Market puts a high value on:
  - Income
  - Cash Flow
  - Profits

- So . . . . IP’s contribution to the firm’s value is particularly useful when it produces:
  - Income
  - Cash Flow
  - Profits

- And. . . . IP has other (non-cash flow) value to the firm
  - Reputation / Image
  - Obtaining access to the technology of others
  - Litigation avoidance
  - Design Freedom
  - Protection for Innovations
  - Competitive blocking
  - Reduced Costs
  - Barriers to entry by competitors
  - Customer Loyalty
Putting it all Together

1. Put these steps into practice and you will know better:
2. How to manage an IA Portfolio
3. How to use it in house
4. How to select IA for external transaction
5. How to find IA outside of your environment which you need.
Transferring IP – Contractual Issues

Outside the scope of this session

- Cooperative Research and Development (except improvements and IP clauses in general)
- Agreements involving Equity Transactions – except for some case study evidence
- Material Transfer Agreements – except for general rules

The discussion will focus on Agreements providing access and user rights to Intellectual Property
Transferring IP

- Scope and aspects of invention: develop your strategy
- Confidentiality Agreements
- Letters of Intent
- Option
- License
- Outright Sale of IP
- In-licensing for product development
- Out-licensing, assignment, sale?
Subject Matter for Licenses

- Patents
- Know-how
- Copyrights
- Trade Secrets
- Trademarks
- Biological Materials (bailment)
Confidentiality Agreements

- Protects data and information shared between licensors and licensees
- Is reiterated and/or superseded in any subsequent option or license agreement
- Especially important for trade secrets, software and pending patents
- Time-limited (3 to 5 years normally)
CDAs (Secrecy Agreement)

Critical clauses in a CDA:

- Return of Information and Material
- Exclusions re confidential treatment
- Penalties
- Arbitration
Letters of Intent

- Typically functions as a simple option agreement
- Agrees to withhold technology from marketplace for limited time
- Agrees to negotiate in good faith, danger here – agreements to agree?!
- Can set forth topics for negotiation
- Optionee pays consideration, patent costs, in-kind compensation
Option

- Time-limited grant of narrow rights to use IP for internal (noncommercial) purposes
- Allows prospective licensee to handle invention and develop strategies for commercial production
- Can be extended in time
- Consideration negotiable, but should at least cover patent costs
- Sets forth how option will be exercised
License

- Agreement grants rights to IP
- Contract gives consideration to both parties: licensee gets right to make, use, sell; licensor collects income
- Exclusive vs. nonexclusive licensing
- Hybrids: different grant, royalty, and life of agreement for different properties in same license
- Paid-up, or sale and assignment of patent
  - (Time value of money, discount for risk, vs. forgone royalties, lost opportunity)
Exclusive License

- Only one party receives grant
- Incentive where large investment needed
- Importance of qualifications, diligence
- Term: Life of patent or 10 years for nonpatented material or know-how
- Rare: co-exclusive has two licensees
Non-Exclusive License

- Two or more parties can be granted a license to the same IP
- Terms can be different in each license, or
- Most Favored Nations (rewards first licensee when next licensee is found)
- Useful to create competition
- Encourages widespread use of methods
- Lower cost to licensee than exclusive
- The ultimate nonexclusive: shrink-wrap software
Anatomy of a License: Parts

- Background recitals
- Definitions
- Grant (limitations)
- Fees, Royalties, Minimum Annual Royalties
- Payment Terms
- Diligence requirements
- Reporting Schedules
- Records/bookkeeping
- Life of the Agreement
- Termination
- Use of Names
- Warranty (limited)
Anatomy of a License: Parts continued

- IP protection; Conduct of prosecution
- Marking; Export control, Applicable Law
- Infringement—right to sue
- Indemnity; Liability; Insurance
- Notices
- Assignment
- Waiver
- Failure to Perform
- Confidentiality/secrecy
- Miscellaneous: Integration
Background/Recitals

- “Whereas,” (old form) or numbered paragraphs
- Explains reasons for license (e.g., complementary business or technical interests)
- Recites any prior agreements on subject
- Explains special circumstances in license (e.g., taking royalty outside patent claim “for convenience of the parties”)
Definitions

- Clarify terms used in license
- Make license simpler to read by defining often-used terms
- Can outline extent of the license granted by differing definitions (e.g., “Affiliate”)
- Render license easier to draft by removing complexity to definition section
Definitions: some topics to address

- Licensee
- Intellectual Property Rights
- Know-how (if any)
- Licensed Products
- Licensed Methods
- Field of Use
- Territory
- Net Selling Price
- Exploitation
Grant

- Tells what rights are granted
- Defines which IP
- Defines length of license life
- Defines access to know-how, if included at all
Limitations on Grant

- **Field of Use**: broad—diagnostics; human diagnostics; narrow—detection of alpha-helical tau deposition in the human brain
- **Time limited**: (five years on one patent, life of patent on another in same license)
- **Geographic**
- **Make, use, or sell, or any combination**
- **No sublicensing, mandatory sublicensing**
- **Restricted assignment of license**
Fees, Royalties, Minimum Annual Royalties

- Serve as incentive to Licensor
- License Issue Fee serves to pay Licensor for value of license itself
- Royalties are payment on sales of Licensed Products based on Licensor’s IP
- Minimum Annual Royalties serve as a reminder and generate pressure on Licensor to develop and market Licensor’s IP
Fees, Royalties, and Minimum Annual Royalties: Sources of Revenue

- Per-use Fee
- License Issue Fee
- License Maintenance Fees (Minimum Annual Royalties)
- Royalties on Net Sales
- Diligence Milestones
- Sublicensee/Corporate Partner Income
- Equity
- Reimbursement of Patent Costs
Diligence Terms

- Purpose: force licensee to develop technology or give it back so it can be re-licensed
- Set hard benchmarks for determining clearly whether licensee has performed adequately
- Allow for termination of license or reduction to nonexclusive
- Arranges retrieval of technology for failure in diligence
Reporting Schedules for Royalties and Progress

- Usually quarterly or semi-annual payments from licensee to licensor (e.g., 30 Jan, 30 Apr, 30 Aug, 30 Nov)
- Defines each payment period (previously completed calendar quarter)
- Provides conversion standards for foreign sales income
Termination

- Termination occurs by acts of parties sooner than life of license
- Licensee wants to terminate at will; licensor wants to terminate for breach by licensee (Careful! Know-how and trade secret licenses should not be terminated at will)
- At-will termination is defense against antitrust tying or misuse of IP when licensing more than one IP
- Termination clause sets forth step-by-step procedure of notification of breach, cure of breach, and termination
Use of Name

- Careful wording lets licensee make factual statements: “Company X has a license to the Taylor patent from the University of Tallinn.”
- Prevents licensee from opening licensor to liability by making claims that imply involvement of licensor in the commercial activity or that suggest licensor endorses a product.
Warranty

- Sets forth right to grant license
- Disclaimer of warranty
- Lack of implied license in other IP of licensor
- Limitation on damages
- Representations (or not!) that IP is free of infringement of third-party IP
- Excludes know-how, if not included in license
IP Protection; Conduct of Prosecution

- Addresses who controls patent prosecution
- Sets forth requirement of licensee to pay costs
- Details what input licensee will have to prosecution
- Disposes of any rights licensee does not wish to support costs on (e.g., if licensor does not support patent filing in Canada, licensee should take it back)
Infringement

- Value of IP is to exclude others
- Licensee right to exclude infringers:
  - Exclusive licensee has standing to sue
  - Nonexclusive licensee must depend on licensor to exclude others by defending IP
- Set out process for notifying parties of suspected infringement
- Who will sue, at what cost, sharing results of suit
- Adjustment of royalties if lack of enforcement
Indemnity, Insurance Requirements

- Allocation of risk of loss for activities under the license
- Reflect extent one party is willing to warrant activities
- Nonprofits (unis)--licensee assumes risk; commercial entities allocate risk more evenly
- Requiring certain levels of insurance assures licensor that assets will be available, but insurance levels should be appropriate to risk
Assignment

- Tells licensor to whom the license can be assigned
- Fully assignable—with or without permission
- Limited: Affiliates? Wholly-owned subsidiaries?
- Important for licensor to maintain control over
- IP
Confidentiality/Secrecy

- Defines confidentiality of data, etc. given by licensor to licensee, or visa versa, or can be mutual
- Can address drawings, information, data, models, etc.
- Best to cover only written data; data orally given should be reduced to writing
- Clause supersedes any prior secrecy agreement or secrecy clause in an option agreement
- Time-limited (3 to 5 years normally); or life of license plus 5 years
Summary

- Know and protect your IP basis
- Develop IP strategy to exploit inventory
- Employ good attorneys producing well written contracts
- Protect yourself with secrecy agreements