EAPO

THE MINISTRY OF JUSTICE OF UZBEKISTAN

WIPO
WORLD INTELLECTUAL PROPERTY ORGANIZATION

Anatomy of Licensing Agreement: Financial Terms

Véronique BLUM PhD

Associate Professor in Corporate Finance and Accounting

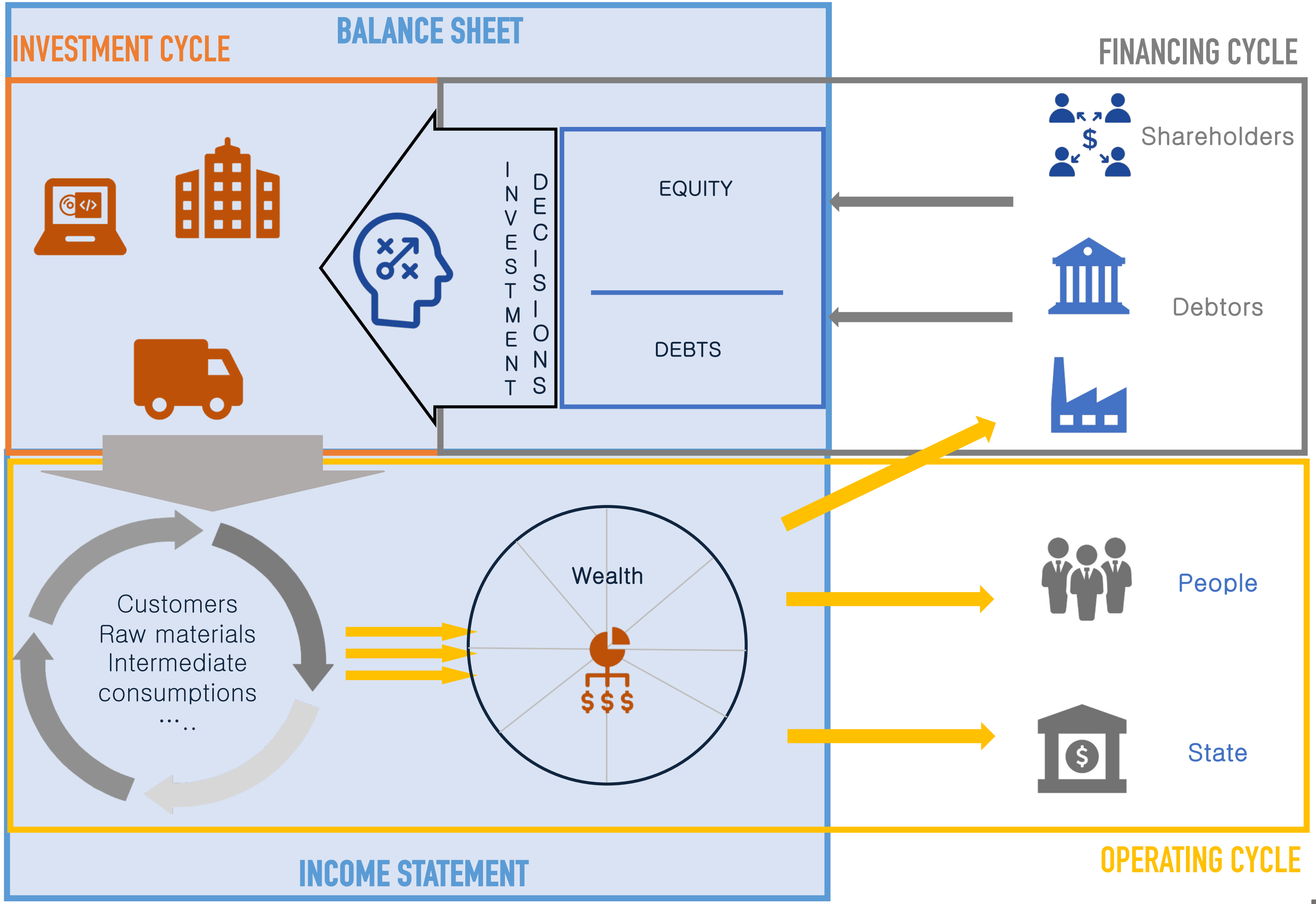
Université Grenoble Alpes

Founder of StradiValue

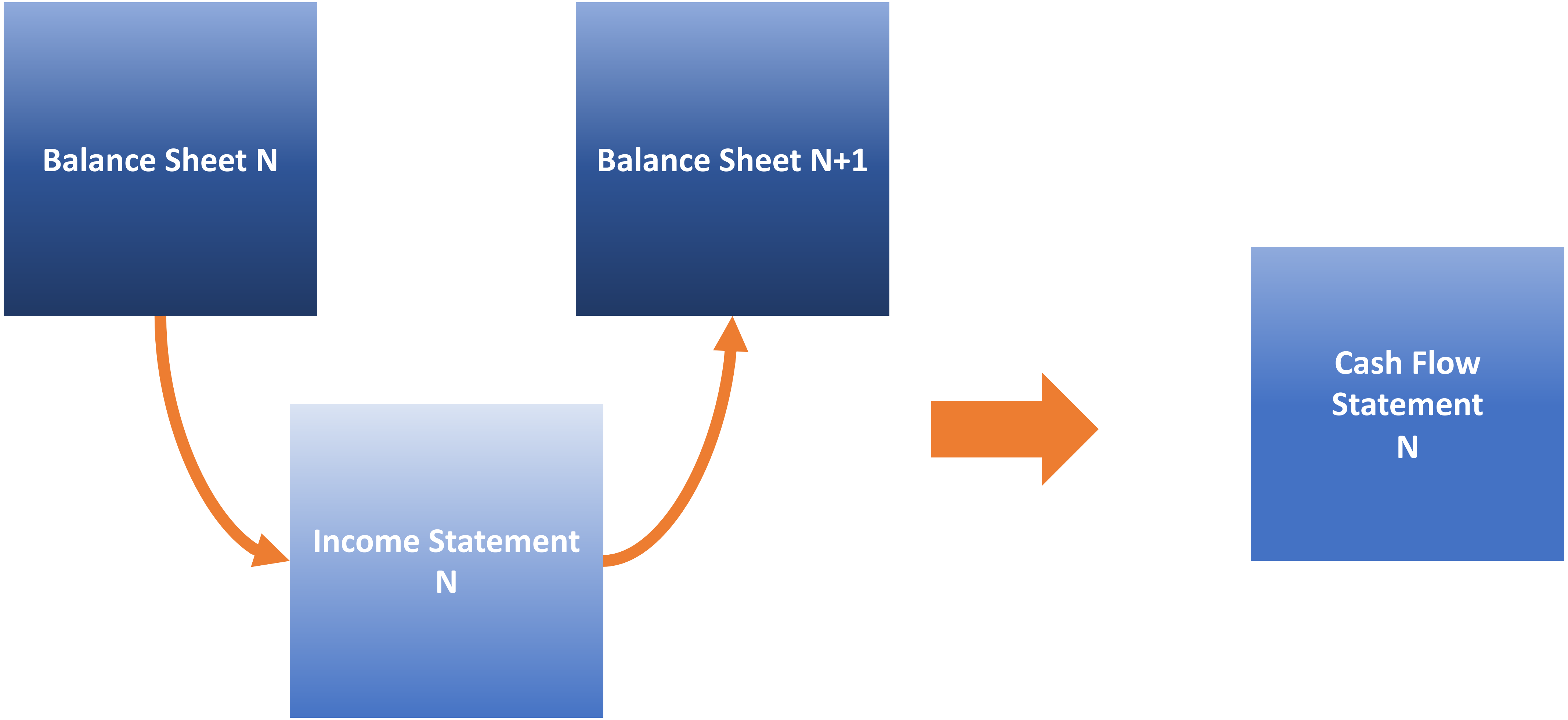
How to value anything ?

The role of financial statements in to assessing value

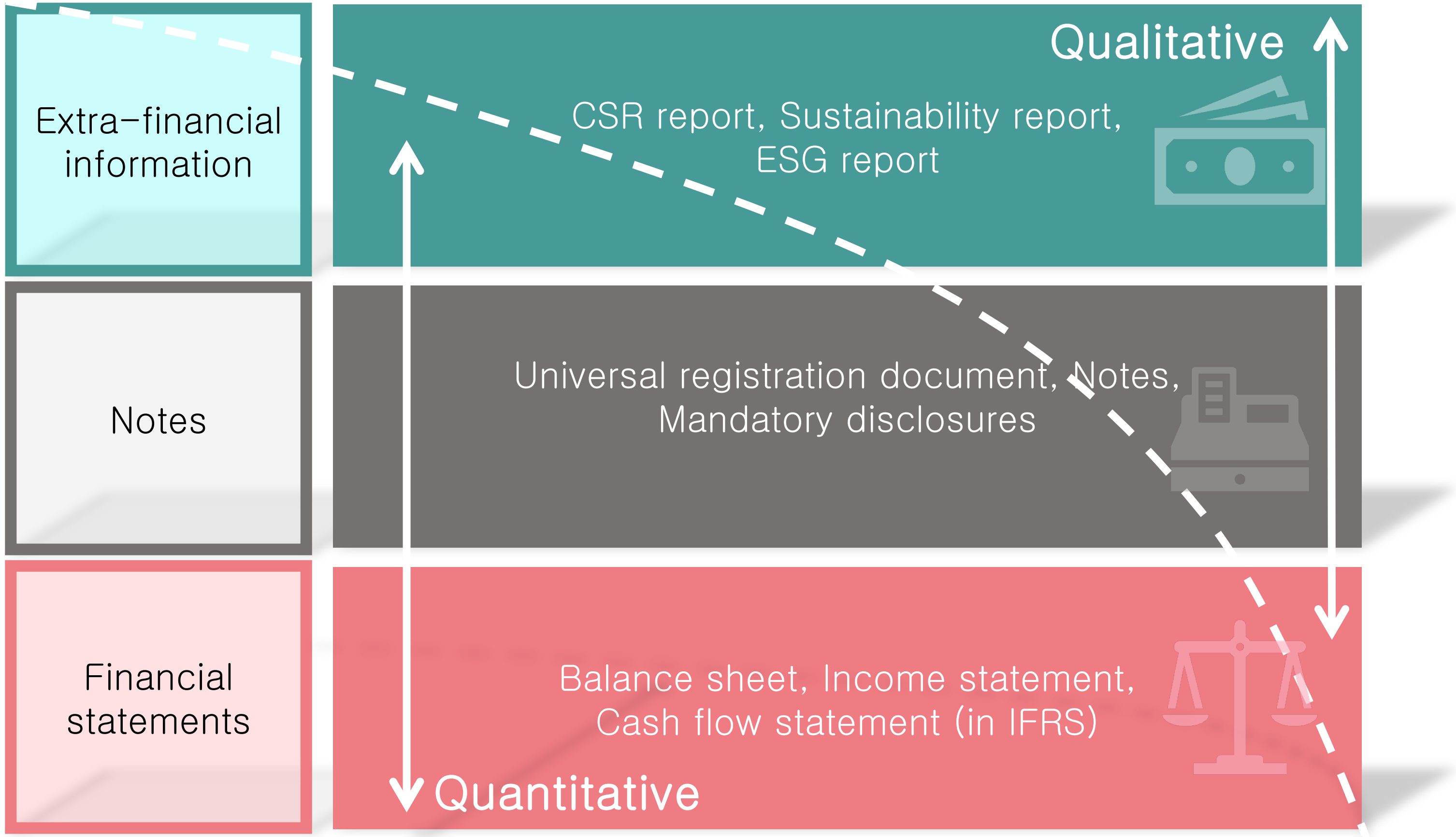
The Financial cycles



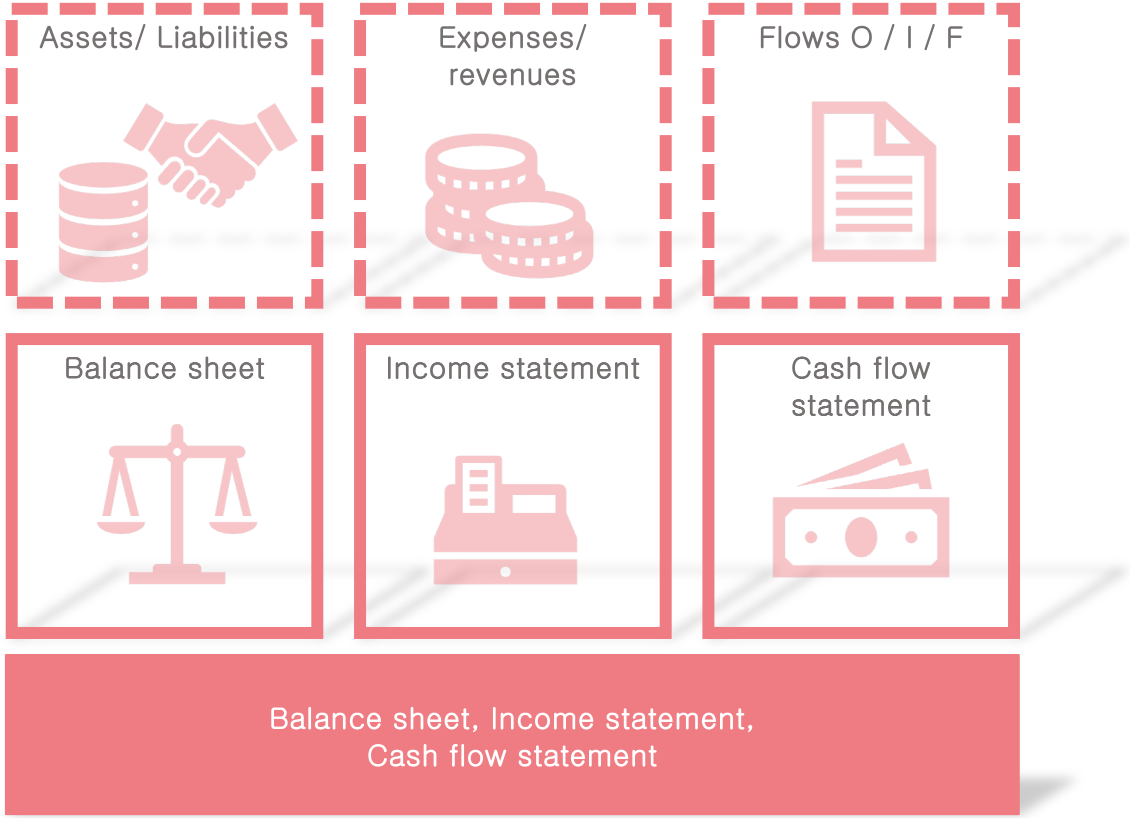
The three financial statements



Corporate reporting content



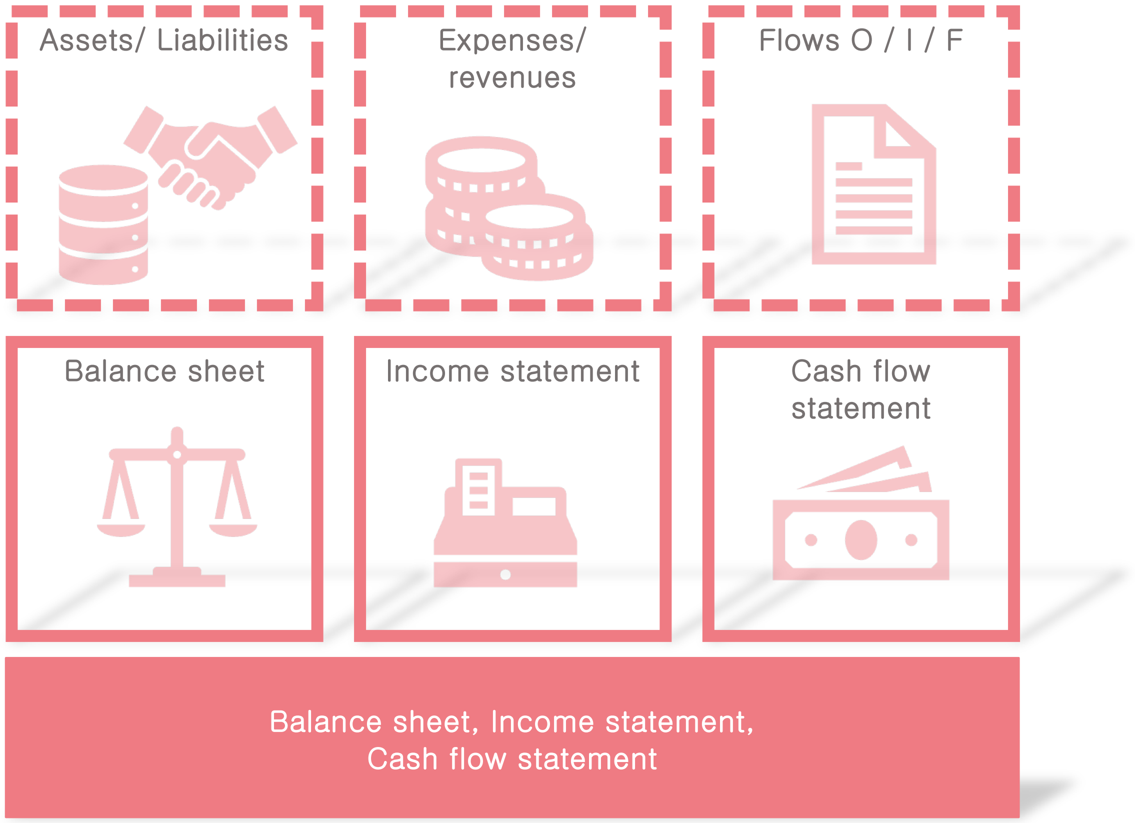
Financial statements content



Overview of the 3 main financial statements

Statement	Definition	Purpose	Time
Balance Sheet	Shows the resources of an entity and how they are used at a specific point in time. A snapshot of the entity's financial health. Assets = Liabilities + Owners' Equity	Describes 1. Some assets that the entity owns 2. What financial resources the entity has raised, hence the money it owes 3. The remaining amount of cash or the need for cash.	At a specific point in time, end of fiscal year
Income Statement	Financial performance of an entity over a specific period, based on operations not cash payments. Measure the available profit for shareholders.	How much revenues did the company make ? Did the company make or lose money? Can owners get a dividend ?	Over a period of time, the whole fiscal year
Cash Flow Statement	Summary of cash inflows and outflows for an entity over a specific period.	How much cash was generated by the entity? Did operations generate cash? Is there enough cash for investing activities ? Do financing activities complete the need for investing?	Over a period of time, the whole fiscal year

Financial statements content



The Balance Sheet

Assets/ Liabilities

Balance sheet

ASSETS

LONG TERM (non current) **ASSETS**

Intangible assets
Tangible assets
Financial assets

CURRENT ASSETS

Inventories
Receivables
Cash & equivalents

What the company owns

EQUITY & LIABILITIES

EQUITY

Social capital
Net income
Retained earnings

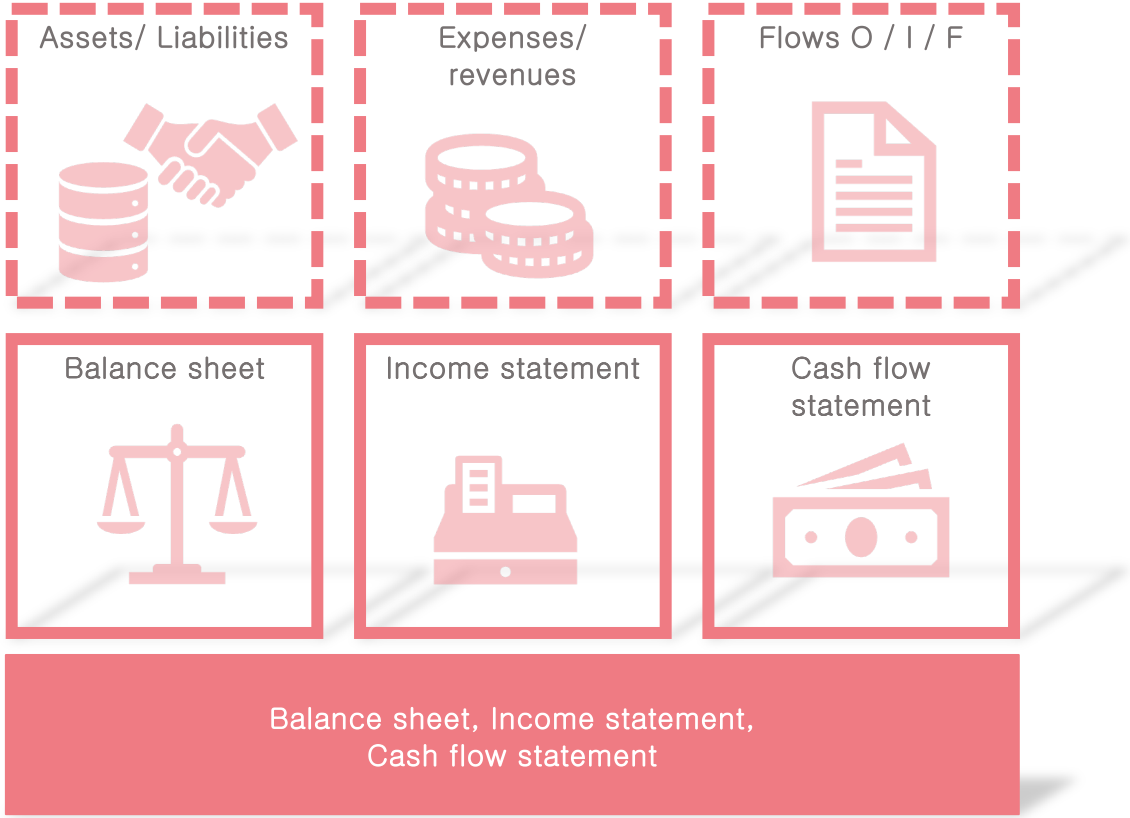
PROVISIONS

LIABILITIES

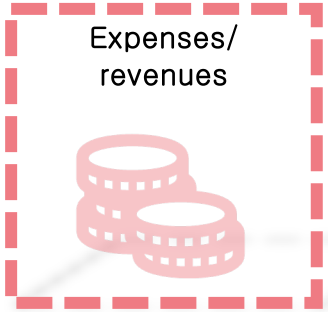
Financial debts
Payables

What the company owes

Financial statements content



Income Statement



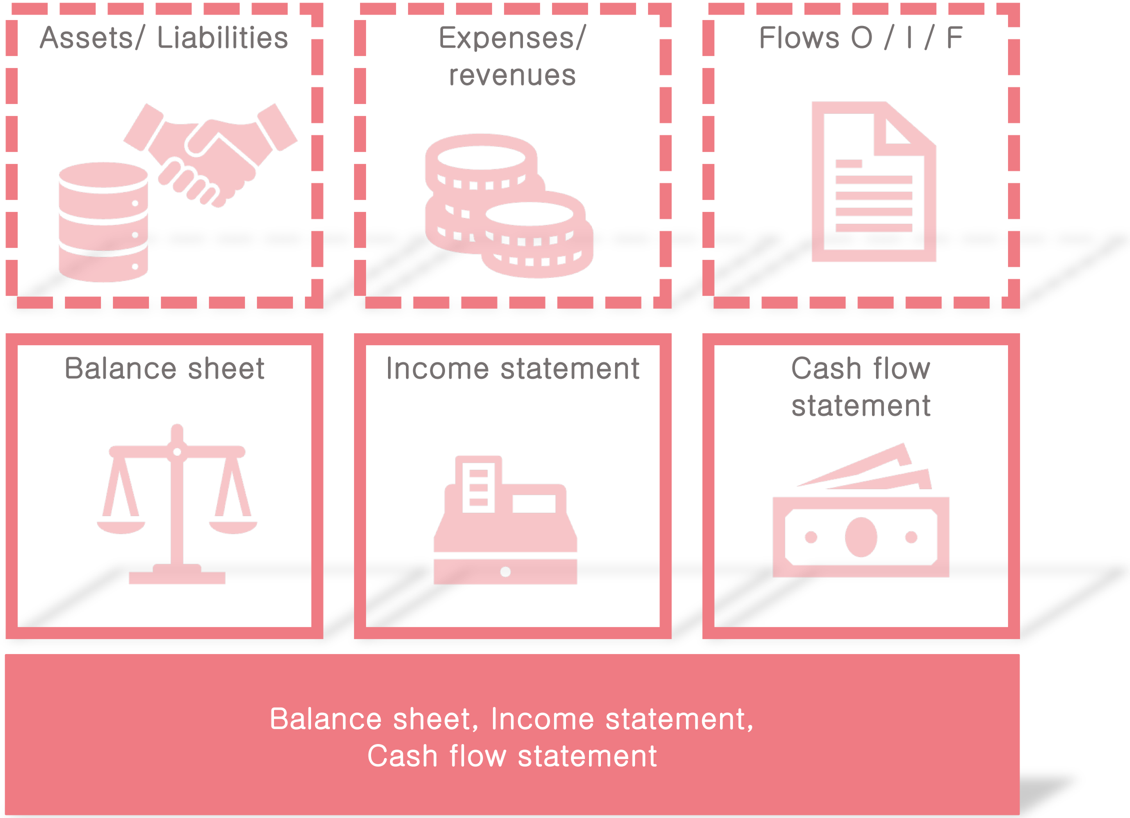
REVENUES	EXPENSES
OPERATING FINANCIAL OTHERS	OPERATING FINANCIAL OTHERS
	PROFIT
OPERATING FINANCIAL OTHERS	OPERATING FINANCIAL OTHERS
LOSS	

Cash Flow Forecasts (Prospective Financial Information or PFI)

Net Sales
- *less* Cost of sales
- *less* Operating expenses
- = **Operating Profit (EBITDA)**
- *less* Depreciation & Amortization
- = **Earnings Before Interest & Tax**
- *less* Taxes
- = **Earnings Before Tax**

Earnings after debtors payments
- *less* Non-cash revenues
- *add* Depreciation & Amortization
- *add* Non-cash expenses
- = **Cash Flow**

Financial statements content



Cash flows statement

Flows O / I / F

Cash flow statement

Net Income + Depreciation, amortization, Impairment
– WCR
Current operating assets
– Current operating liabilities
OPERATING CASH FLOW

Proceeds from assets sales (PP&E)
– Investment in assets (capex)

INVESTING CASH FLOW

Reduction in funds
+ increase in funds

FINANCING CASH FLOW

Cash position beginning of year
Change in cash position

CASH POSITION END OF YEAR

What is a good deal?

- A deal is a transaction that ought to be win-win for both parts
- A win strategy is a financially sustainable operation
- A financially sustainable operation is an operation that, over time, generates profit, or at least no deficit
- Generating profit means that revenues are larger than expenses
- This is not necessarily true every time, but shall be true over the lifetime of the operation
- Ex : amazon was profitable in year 21
- A financially sustainable operation is an operation that is not short of fundings, hence that is not short of cash

How are deals measured?

- The relevance of a deal is measured through the P&L (Income Statement)
- If income is positive (profit), the business is sustainable
- However, revenues and expenses recorded in the P&L can be delayed ones or non-cash:
  - A revenue or an expense is incurred when the bill is issued not when the payment is made
  - Some non-cash items are : the depreciation, the amortization, the impairment, the gain on sale etc.

- The relevance of a deal is also measured through the cash flow statement
- Cash flows are measured on periodical bases
- The sum of the cash flow is of interest
- But as 100€ today is different than 100$ next year, the flows ought to be discounted

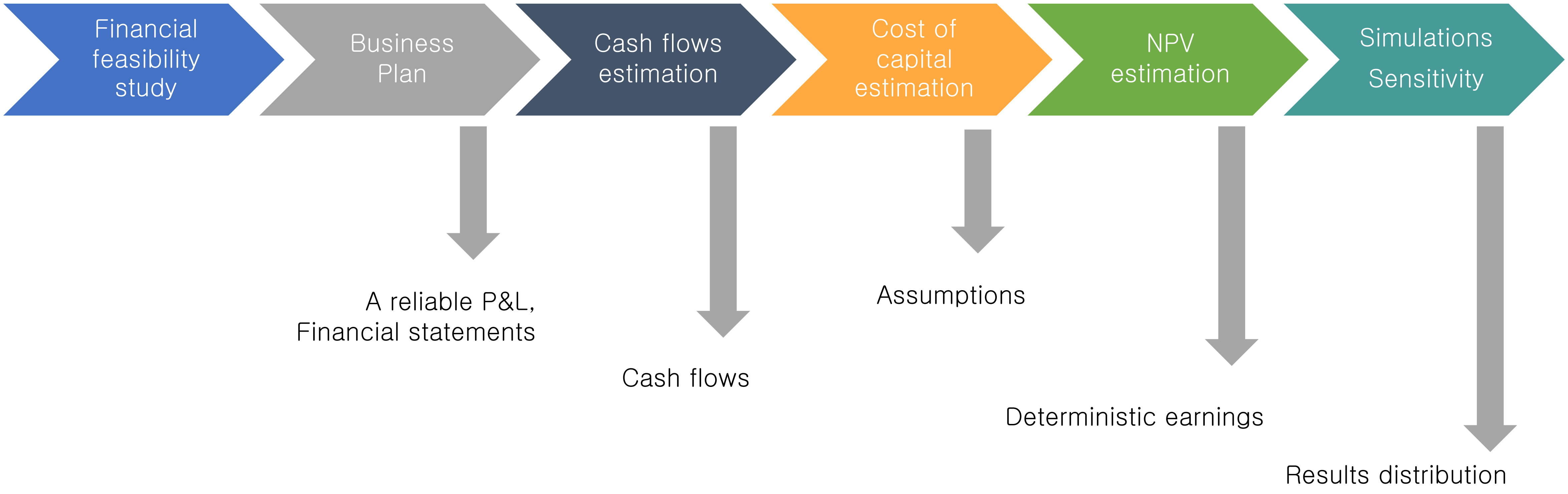
How is a deal measured ?

Common approach for valuing the relevance of a deal, building a business plan

Cash inflows and cash outflows, a simple calculation process

1. Steps to calculate cash flows
2. Investment cash flows
3. Operating cash flows
4. Total cash flows
5. Financial forecasting

Steps to estimate cash flows



Objective of the licensing agreement

- For both parts: Profitability > Cost of funds
- Profitability : is the project /operation creating cash ?
- Cost of funds : what is the price of the money invested in the agreement ?

Technical Approach

Evaluation of costs

Evaluation of created value

Is value created enough ?

Practical Approach

Flow calculation

Operating flows calculation

Discounted flows calculation

A simple example: a platform dev. illustration

- Average cost of goods sold: 15 €
- Average selling price: 30 €
- Estimated sales volume: 5000 units
- Material equipment purchase: 40 000 €
- Project duration: 5 years
- Depreciation : linear basis, identical usage over the whole period
- Investment in WCR: 1 month of revenues
- Corporate tax : 30%
- Fixed cost (per year): 45 000 €

Easy case: investment flows (IF)

- Cost of material: 40 000 €
- Yearly depreciation : 8 000 €
- Tax credit : 8 000 * 0,3 = 2 400 €

- WCR investment:

  Expected revenues: 30 * 5 000 = 150 000

  One month of WC= 150 000/12 = 12 500

Year	0	1	2	3	4
Purchase of material	-40 000				
Tax credit on depreciation		2 400	2 400	2 400	2 400
Var WC	-12 500	0	0	0	12 500
Total IF	-52 500	2 400	2 400	2 400	14 900

Easy case: operating flows (OF)

- In flows = sales — Revenues = 30 * 5 000 = 150 000 €
- Out flows — Variables costs = 15 * 5 000 € = 75 000 €

  Fixed costs = 45 000 €
- EBITDA — 150 000 € – 75 000 € – 45 000 € = 30 000 €
- Corporate tax — CT= 30000 * 30% = 9 000 €

Year K€	0	1	2	3	4
Revenues		150 K	150 K	150 K	150 K
Variable costs		75 K	75 K	75 K	75 K
Fixed costs		45 K	45 K	45 K	45 K
EBITDA		30 K	30 K	30 K	30 K
Corporate tax		9 K	9 K	9 K	9 K
TOTAL OF		21 K	21 K	21 K	21 K

Easy case: Total cash flows

Year / K€	0	1	2	3	4
IF	−52.5	2.4	2.4	2.4	14.9
OF	0	21	21	21	21
TOTAL Cash Flows	−52.5	23.4	23.4	23.4	35.9

How to value a licensing agreement ?

Building two business plans

What is a Licensing Agreement?

- A licensing agreement is a contract between two parties: the licensor and licensee
- The licensor grants the licensee the right to use a right or a bundle of rights that the licensor owns.
- IP rights are mostly related to brand names, trademarks, patented technologies etc.
- The licensee is granted the right because the licensee has the abilities to monetize goods owned by the licensor.
- Licensing agreements are used by the licensor as a means to monetize their intellectual property.
- They are used by licensees as a means to increase their service/products offers.

What is a Licensing Agreement?

- The licensing agreement is materialized by a contract that describes a transaction:
  - the licensor agrees to provide the licensee with intellectual property rights
  - In exchange of the IP rights, the licensee typically pays an upfront fee and/or a royalty fee to the licensor.
  - A royalty fee is an ongoing fee paid for the right of use of the licensor's intellectual property.
- Two definitions to remember:
  - The party that is providing intellectual property rights to another party is called the licensor
  - The party that is receiving intellectual property rights from another party is called the licensee

Advantages of the contract for each part

LICENSOR

1. The licensor saves capital expenditures for not having to invest in production facilities and building a distribution network
2. The licensor gets access to the licensee's distribution network, hence this allows to enter into new geographical markets
3. The licensor can learn from the expertise and skills of the licensee
4. The licensor collects passive revenues (royalties)

LICENSEE

1. The licensee is short of resources to conduct research and development to develop their own products or services
2. The licensee avoids investments in unsuccessful research
3. The licensee gains access to existing intellectual property
4. The licensee is able to enter the market faster
5. The licensee generates revenues by using the intellectual property of the licensor

Disdvantages of the contract for each part

LICENSOR

1. The licensor losses all or part of control of the intellectual property they have developed
2. The licensor is dependent on the licensee's willingness to sell to generate their own revenues
3. The licensor being exposed to intellectual property theft by the licensee

LICENSEE

1. The licensee is responsible for all production, marketing, selling costs, etc.
2. The licensee's activity could become dependent on the licensor's intellectual property
3. The licensee pays an upfront fee when the IP commercialization is still uncertain
4. The licensee pays a royalty to the licensor and reduces their own profit

Business Model Canvas

Partners

Who are our Key Partners? Who are our key suppliers? Which Key Resources are we acquiring from partners? Which Key Activities do partners perform?

Activities

What Key Activities do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue streams?

Resources

What Key Resources do our Value Propositions require? Our Distribution Channels? Customer Relationships Revenue Streams?

Values

What value do we deliver to the customer? Which one of our customer's problems are we helping to solve? What bundles of products and services are we offering to each Customer Segment? Which customer needs are we satisfying?

Relationships

What type of relationship does each of our Customer Segments expect us to establish and maintain with them? Which ones have we established? How are they integrated with the rest of our business model? How costly are they?

Channels

Through which Channels do our Customer Segments want to be reached? How are we reaching them now? How are our Channels integrated? Which ones work best?

Customers

For whom are we creating value? Who are our most important customers? Is our customer base a Mass Market, Niche Market, Segmented, Diversified, Multi-sided Platform

Costs

What are the most important costs inherent in our business model? Which Key Resources are most expensive? Which Key Activities are most expensive?

IS YOUR BUSINESS MORE: Cost Driven (leanest cost structure, low price value proposition, maximum automation, extensive outsourcing), Value Driven (focused on value creation, premium value proposition).

Revenues

For what value are our customers really willing to pay? For what do they currently pay? How are they currently paying? How would they prefer to pay? How much does each Revenue Stream contribute to overall revenues?

TYPES: Asset sale, Usage fee, Subscription Fees, Lending/Renting/Leasing, Licensing, Brokerage fees, Advertising
FIXED PRICING: List Price, Product feature dependent, Customer segment dependent, Volume dependent
DYNAMIC PRICING: Negotiation (bargaining), Yield Management, Real-time-Market

3 D business model (Chammassian & Sabatier, 2020)

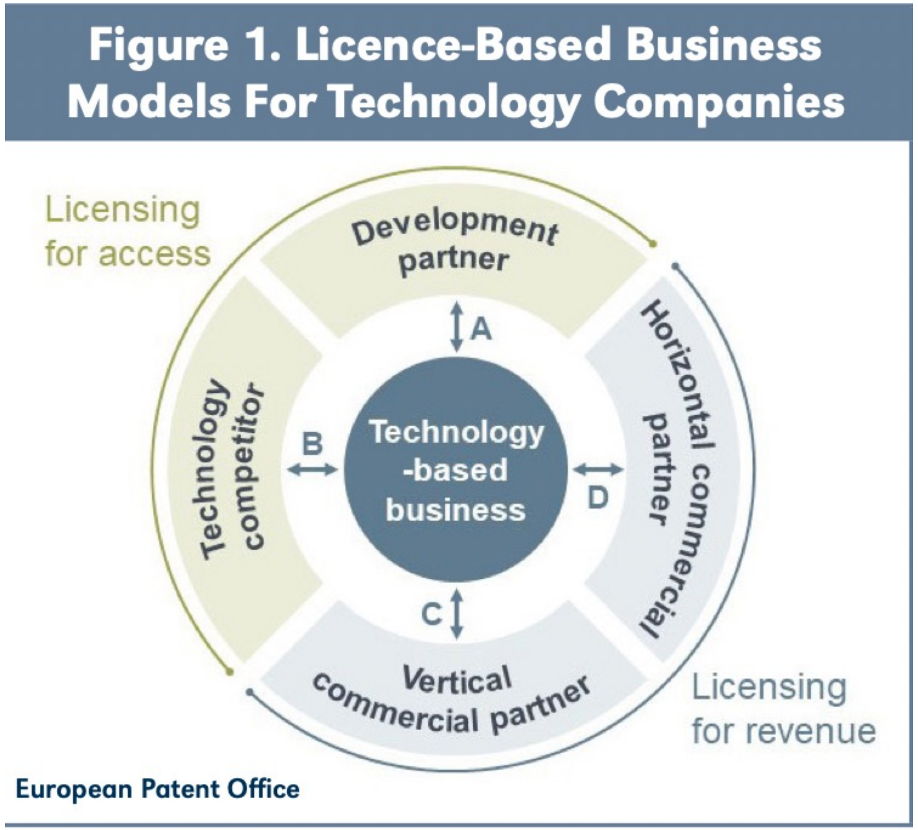
Tech driven	Market driven	Exit driven
Concept, technology, IP	Product development, services	New company development
ENABLE	MODERATE	MEDIATE
Intellectual capital	Margin, profitability	Exit value

3 D business model (Chammassian & Sabatier, 2020)

	Tech driven	Market driven	Exit driven
Value creation source	People IP, Problem– solution fit	Project Services Platform Value driven	Profit New company development
Value capture	Efficiency, effectiveness	Go-to-market PoC, scale/replicate	Real option
Value extraction	Intellectual capital	Margin, profitability, reputation	ROI

Licensing business model: a focus

Bowman Heiden , Thomas Bereuter (June 2022)
Licensing-Based Business Models, Les Nouvelles, LESI publication



2 main market interfaces :

- Development
- Commercialization

4 business models:

- A – Access to technology
- B– Freedom to operate
- C – Licensing vs production/services
- D – Complementary Licensing

Clarify the objectives of the relation: a first checklist of questions (Heiden & Bereuter, 2022)

What do you want to achieve or obtain?

- ☐ cash
- ☐ access to someone else's technology
- ☐ further development of the technology
- ☐ avoid losing freedom to operate

What are the risks associated with licensing?

- ☐ non-use of the technology
- ☐ excessively high or low royalties limiting partners' motivation
- ☐ invalidation of patents
- ☐ loss of trade secrets

What are you willing to give up?

- ☐ control
- ☐ risk distribution (warranties and indemnification, milestone payments, minimum royalties)

What are the opportunities associated with licensing?

How can the risks be mitigated and opportunities maximised?

Clarify the objectives of your licensee: a second checklist (Heiden & Bereuter, 2022)

- ❑ How has your intended licensee built its own internal business case for this licence? Why does the intended licensee want a licence?
- ❑ Are you sure you understand the win–win relationship?
- ❑ What investments may the licensee have to make and commit?
- ❑ What does this mean in relation to the licence terms?
- ❑ Which countries are relevant and realistic for the licensee?
  - ❑ Markets
  - ❑ Production and services
- ❑ Which applications are of interest to the in– tended licensee?
- ❑ Is it important for the licensee to have the right to extend protection, *i.e.*, for a PCT application in the national phase, or to have the right to have a patent assigned in case the licensor chooses not to maintain a patent?
- ❑ Does the licensee want to have the right to enforce the patent if the licensor chooses not to?

TRUST ISSUES

- ❑ Will the licence create more value for both of you than either of you could create on your own? Increase the “size of the cake” to be shared by looking for synergies.
- ❑ How are you and the licensee related in the value chain?
- ❑ Can you trust the licensee?
- ❑ What measures have been taken to ensure permanent mutual trust (regular meetings, progress reviews, etc.)?

STRADIvalue

Clarify the features of the license object: a third checklist (Heiden & Bereuter, 2022)

- Be very specific about what the licensed object includes (and what it does not include). Including all intellectual property and all intellectual assets you own may not be the best option
- Identify any technical assistance that may be required for any transfer of know-how, or any optimisation of a patent.
- Consider the geographical limitations of the licensed object. For example, if you own a patent in one country, you cannot automatically also license it outside that country. However, you may be able to license attached know-how more broadly.
- If you intend to license trade secrets, first make sure to establish a high level of trust between you and the licensee.
- Consider further developments. Should they be included in your definition of the licensed object?
- Consider further developments effected by the licensee. In the case of a non-exclusive licence, this might involve a back-licence so that subsequent improvements can be made available to the licensor and other licensees.

Clarify the features of the scope of the license: a fourth checklist (Heiden & Bereuter, 2022)

EXCLUSIVITY	What degree of exclusivity is provided? Is it a non-exclusive licence, an exclusive licence, or a sole licence?
ACTIONS	What should the licensee have the right to do with the licensed object (*e.g.*, manufacture it, sell and distribute it, etc.)?
GEOGRAPHY	What geographical territory is the licensor providing access to?
APPLICATION	What applications and/or fields of use does the licence cover? For example, you may have a patent that can be used both for pets and for humans, but the licensee might be focused on one only.

Features of a lincensing agreement

LICENSOR

- Suppliers
- Transfer support
- Rights to use technology
- Proprietary Technical Information
- Patents and other IP
- External contracts
- Infringement defence
- Facilities
- General representations & warranties
- People
- Equity
- Customers
- Technology
- R&D / consulting services
- Software
- Hardware *(R&D prototypes, inventory, etc.)*
- Patent prosecution & maintenance
- External licences
- Infringement enforcement
- Regulatory support services

LICENSEE

- In-kind *(e.g. access to facilities, analytical equipment, human resources, etc.)*
- Royalties *(on sales & on sublicensing income)*
- Commitment to purchase goods / services
- Equity
- Infringement defence
- Patent prosecution & maintenance
- Option payments
- Royalty adjustments
- Annual payments *(min. royalties / licence maintenance fees)*
- Infringement enforcement
- Other upfront payments
- IP rights *(grant-back)*
- Research support
- Licensee
- Milestone payments *(deadline-based!)*
- Licensee fees

Financial terms in a licensing agreement, inputs by Jorge L. Contreras

- Financial terms are the “legal” terms of an agreement, which describe the parties’ financial obligations to one another.
- Why are they important ?
  - Attorneys often give too little time and attention to these financial clauses,
  - They assume that the parties and their accountants, bankers and financial advisors will work out the “numbers” to their satisfaction.
  - They are fundamental hypothesis in the valuation model
  - Their definition needs to involve all part

FINANCIAL TERMS ARE LEGAL TERMS

THAT FORM STRONG HYPOTHESIS IN A BUSINESS PLAN

Financial terms, a tentative list

- Fixed payments
- Running Royalties – Rate
- Running Royalties – Adjustments
- Sublicensing Income
- Milestone payments
- Equity compensation
- Cost reimbursement
- Most favored clauses
- Audit clauses

Financial terms, fixed payments

Fixed payments

- amounts that are pre-determined
- specified in a contract,
- no reference to the licensee's revenue
- no reference to the licensed rights.
- if they are due upon contract signing , they are called **up-front** payments

Financial terms, fixed payments

Fixed payments

- Up-Front and Lump Sum payments
- Option, License and Maintenance Fees
- Advances and Applicable Fees
- Non-Refundable Fees

Financial terms, fixed payments

Fixed payments

Up-Front and Lump Sum payments

- If an up-front payment represents the entire consideration for the license, then it is also referred to as a **lump sum** payment.
- Privately-held biotech companies often require up-front payments from their licensees in order to fund their operations prior to the development, approval and marketing of a product.
- These are often made in exchange for exclusive license rights in a particular field or fields of use.
- These are often paid in addition to running royalties on products that are created under the license.

Financial terms, fixed payments

Fixed payments

Personal example

you pay $1.99 for a new app at AppStore, you have paid a lump sum fee

Up-Front and Lump Sum payments

- Depending on the industry, up-front fees in license agreements can be quite large.
- One recent study of more than 1,000 biopharmaceutical licenses entered into between 1998 and 2018 found that average up-front fees paid were $11.5 million with a high of $240 million (for a tumor therapeutic licensed by Exelixis to Bristol-Myers Squibb).

Example: Up-Front Fee
Licensee shall pay Licensor a non-refundable, up-front fee of $1,000,000 within ten (10) business days from the Effective Date.

Financial terms, fixed payments

Fixed payments

- Up-Front and Lump Sum payments
- Option, License and Maintenance Fees
- Advances and Applicable Fees
- Non-Refundable Fees

Financial terms, fixed payments

Fixed payments

Option, License and Maintenance Fees

- Option fees are one-time payments of a fixed amount.
- in the biotech industry – a company grants another company an option to acquire exclusive license rights to IP at some time in the future, the option fee will be paid as a one-time fixed fee, and the purchase price or license fee payable upon exercise of the option will be a (usually larger) fixed fee.
- Payments is made in a single instalment or is due periodically – monthly, quarterly, annually or on any other schedule.

Financial terms, fixed payments

Fixed payments

Option, License and Maintenance Fees

- Fixed annual license fees are common in enterprise software
- Arrangements often include charges for related services, such as software maintenance, support and updating,
- Itis charged periodically (often annually) as a percentage of the annual license fee (often in the range of 15% to 25% of the annual license fee).

Example: Periodic License Fee
Licensee shall pay Licensor a non-refundable license fee of $1,000,000 no later than sixty (60) days prior to the beginning of each Contract Year hereunder.

Financial terms, fixed payments

Fixed payments

Up-Front and Lump Sum payments

Option, License and Maintenance Fees

Advances and Applicable Fees

Non-Refundable Fees

Financial terms, fixed payments

Fixed payments

Advances and Applicable Fees

- In some cases, up-front fees are characterized as advances against future payment obligations such as royalties.
- Such advances are common in the publishing, music and entertainment industries.
- In this model, authors and composers often receive an advance upon licensing their rights to a publisher.
- An advance can be paid before a work is delivered (common for non-fiction books) or upon the licensing of a manuscript (works of fiction) or sound recording.

Financial terms, fixed payments

Fixed payments

Advances and Applicable Fees

- The term “advance” indicates that such a payment is really a pre-payment of applicable royalties that may be due during the life of an agreement.
- In many cases, authors and other rights licensors receive only their advance, as earned royalties never exceed the amount of the advance.
- In some cases, an up-front payment will be referred to not as an advance, but as “applicable” to a future payment obligation. This is sometimes the case with option fees.

Financial terms, fixed payments

Fixed payments

Advances and Applicable Fees

- For example, a $5,000 option fee may be described as “applicable to” the purchase price of the relevant right if the optionis exercised.
- If the option fee is not applicable to the purchase price, then it is referred to as “non-applicable”

Examples

- Former President Barack Obama received a $20 million advance in 2017 for his memoir « Dreams from My Father », the largest single-book advance on record,
- Bill Clinton’s received a $15 million advance for his 2001 memoir « My Life » , which is likely larger in inflation-adjusted dollars.

Financial terms, fixed payments

Fixed payments

Up-Front and Lump Sum payments

Option, License and Maintenance Fees

Advances and Applicable Fees

Non-Refundable Fees

Financial terms, fixed payments

Fixed payments

Non-Refundable Fees

- What is the degree to which such fees are refundable ?
- For example : if some future event, such as regulatory approval of a drug, does not occur.
- In general, up-front fees are non-refundable
- They thus represent a sunk cost and a risk to the licensee, which must pay whether or not the acquired rights turn out to be as valuable as promised.
- Absent outright fraud by the licensor, there is little that a licensee can do to recover non-refundable up-front fees once they have been paid.

Financial terms, a tentative list

Fixed payments

Running Royalties – Rate

Running Royalties – Adjustments

Sublicensing Income

Milestone payments

Equity compensation

Cost reimbursement

Most favored clauses

Audit clauses

Financial terms, running royalties

Running Royalties – Rate

Financial terms, running royalties

Running Royalties – Rate

- The most common form of payment
- A form of compensation because they tend to align the interests of the licensor and licensee.
- A royalty is a periodic payment that is typically based on the licensee's manufacture, use or sale of a licensed product or service, whether a new drug, a book or an action figure
- "Running" royalties are paid over the course of the agreement term
- "Earned" royalty are based on the licensee's revenue
- Royalties are calculated and paid periodically : monthly, quarterly, annually, or over some other fixed interval.

Running Royalties – Rate

- Quarterly royalty payments are the norm in patent licensing agreements
- Semi-annual payments are common in literary rights agreements
- Royalties are due and payable within some reasonable time after the end of the period (e.g., 30 to 60 days after the end of the relevant calendar quarter).
- A royalty report showing the basis for royalties paid is often required
- The calculation of royalties in licensing agreements can become extremely complex, with room for interpretation and opportunistic behavior.

Financial terms, running royalties

Running Royalties – Rate

Per Unit Royalties

Percentage Royalties – Rate

Percentage Royalties – Base

Financial terms, running royalties

Running Royalties – Rate

Per Unit Royalties

Flat rates

Tiered schedules

Financial terms, running royalties

Running Royalties – Rate

Per Unit Royalties

Flat rates

A rate that sets a fixed charge for each unit of a licensed product sold or distributed by the licensee

Example: Per Unit Running Royalty
In consideration for the licenses granted hereunder, Licensee shall pay to Licensor earned royalties at the rate of $x.xx per unit of Licensed Product sold [*alternative*: manufactured].

Financial terms, running royalties

Running Royalties – Rate

Per Unit Royalties

Flat rates

- Alternative calculation:
- A licensor may require a per-unit royalty to be paid with respect to every licensed product that the licensee manufactures (or has manufactured on its behalf).

Financial terms, running royalties

Running Royalties – Rate

Per Unit Royalties

Tiered schedules

- Per-unit royalties may be "flat" or "tiered"
- Flat royalties are the same no matter how many units of the licensed product are manufactured or sold
- Tiered royalties take volume into account, and usually decrease as the licensee's volume increases

Financial terms, running royalties

Running Royalties – Rate

Per Unit Royalties

Tiered schedules

Units sold during quarter	Royalty per unit
0 – 5,000	$1.00
5,001 – 50,000	$0.85
50,001 – 100,000	$0.75
100,000+	$0.65

Financial terms, running royalties

- Question :
- What is the amount of earned royalties if the licensee sells 60,000 units of the licensed product ?
  - $1.00 for each of the first 5,000 units (or $5,000),
  - $0.85 for the next 45,000 units ($38,250)
  - $0.75 for the next 10,000 units ($7,500)
  - The total quarterly royalty payment of $50,750.
- In the second quarter, the count would begin from zero.
  - If the licensee sold 100,000 units during the second quarter
  - It would owe $5,000 + $38,250 + $37,500, or a total of $80,750.

Financial terms, running royalties

Running Royalties – Rate

Per Unit Royalties

Percentage Royalties – Rate

Percentage Royalties – Base

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties – Rate

- Basics
- Tiered schedules
- Levels
- Hybrid royalty rates

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties

Basics

Royalty ($) = Rate (%) x Base ($)

- A percentage royalty has two key components:
  - the royalty rate, the amount of licensee revenue that it multiplied by the royalty rate to yield the royalty owed
  - the royalty base, often expressed in terms of the licensee's "Net Sales" of licensed products.

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties

Basics

- Key issue : What is the definition of Net Sales ?

Example: Percentage Royalty
In consideration for the licenses granted hereunder, Licensee shall pay to Licensor, earned royalties
at the rate of x% on Net Sales of Licensed Products.

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties – Rate

Basics	Tiered schedules
Levels	Hybrid royalty rates

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties

Tiered schedules

Like per-unit royalties, percentage royalties may be flat or tiered.

Example of a volume- based tiered percentage royalty schedule :

Units sold during quarter	Royalty rate
0 – 5,000	5%
5,001 – 50,000	4.5%
50,001 – 100,000	4%
100,000+	3.5%

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties

Tiered schedules

Alternative to a sales base:

- the **geographic** market in which a licensed product is sold

  many pharmaceutical products are priced differently in different geographic markets, with rates in low-income countries only a fraction of what they are in high-income countries;

- the **type** of licensed product sold –

  e.g., the rights of use of texts will be charged differently if it used a training data for genAI or used for publications

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties

Tiered schedules

Alternative to a sales base:

- the **date** on which the license is granted – e.g., licensors sometimes seek to incentivize
  early adoption of their technology by offering rates that are determined based on when the license agreement was signed.

- Finally, tiered royalty schedules may combine all of these, as well as percentage and per-unit royalty rates, in any number of variations

Financial terms, running royalties

Running Royalties – Rate	Percentage Royalties	
	Basics	Tiered schedules
	Levels	Hybrid royalty rates

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties

Levels

- Attorneys do not usually determine the royalty rate at which the licensed rights will be licensed.
- Valuers do not do that estimation neither, they would be judge & party
- The determination of royalty rates, just as the selling price of a product or service, is a decision left to business experts.
- Other experts are expected to have a general understanding

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties

Levels

- The establishment of a royalty rate in a licensing agreement depends on :

    custom and practice in the relevant industry, +> comparables

    the negotiation leverage of the parties

- Factors that explain variation in royalty rates are : the strength of the IP, the desirability of the IP, the size and reputation of the licensee, the type of licensed product being authorized, the exclusivity of the license.

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties

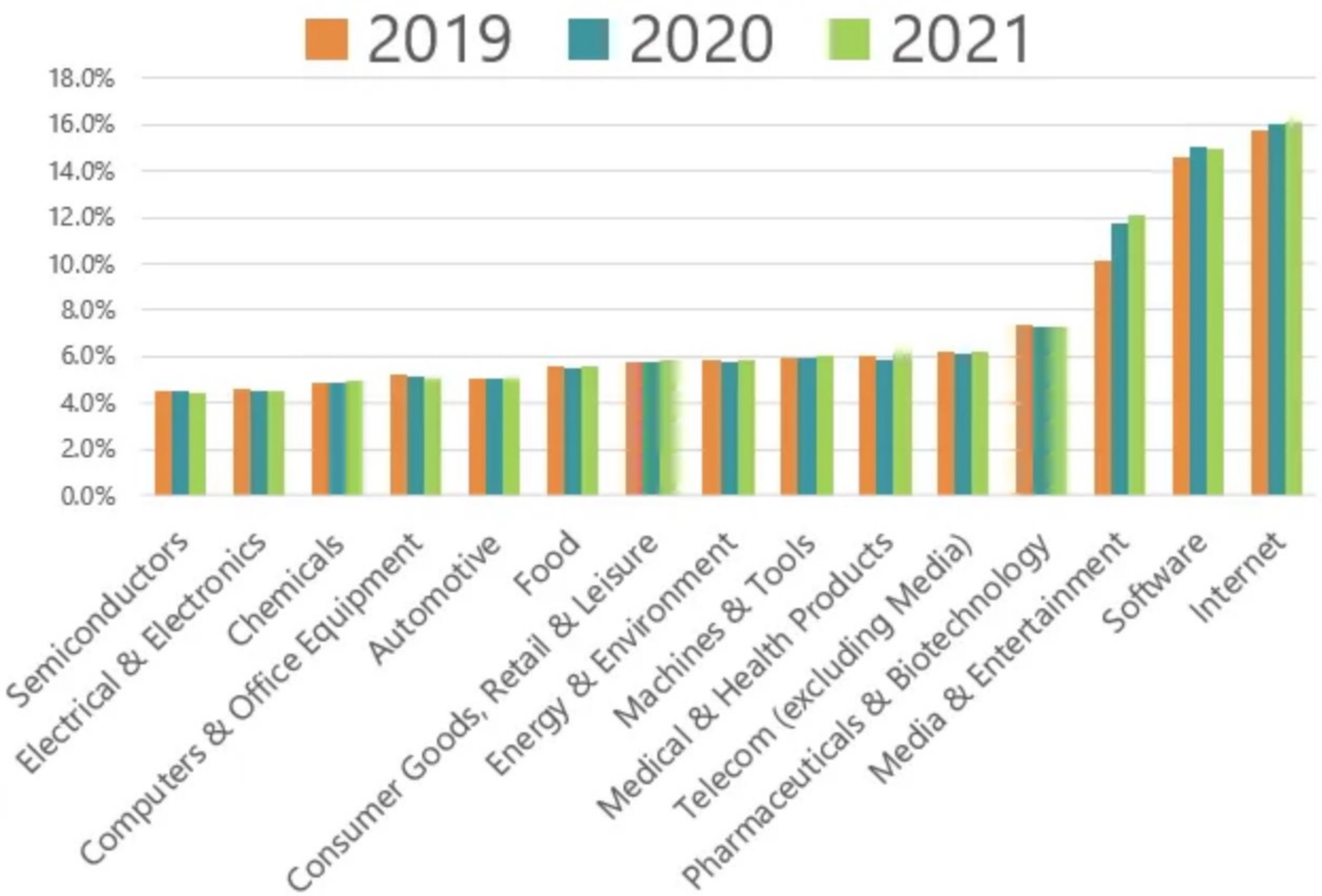
Levels

- For example
- The average royalty rate for licensing a brand or character for use in toys and games is approximately 8%.
- Disney charges Hasbro between 20% and 25% for its exclusive toy/merchandise license of Disney's Star Wars and Marvel Comics properties.

Financial terms, running royalties

Running Royalties – Rate

Levels



https://valuediscovery-55286.medium.com/a-look-at-using-composite-royalty-rate-data-63e37883b4eb

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties

Basics	Tiered schedules
Levels	Hybrid royalty rates

Financial terms, running royalties

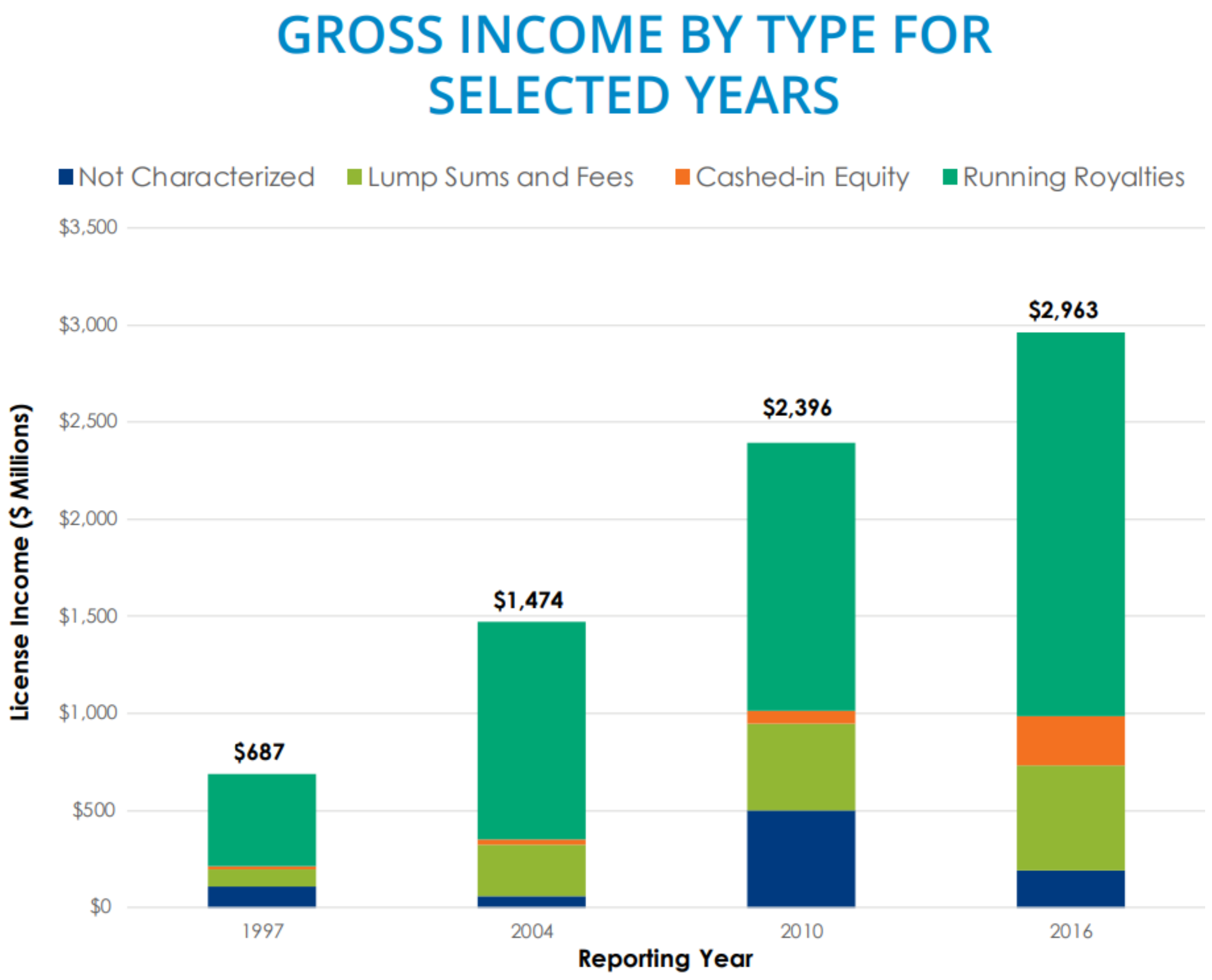
Running Royalties – Rate

Percentage Royalties

Hybrid royalty rates

- Some laws do not permit a patent holder to charge a royalty with respect to an expired patent, or in a jurisdiction where the patent is not in force.
- Extension of the temporal or geographic scope is a patent misuse
- Combination of patent licenses with know-how licenses or trade secrets is a strategy
- Trade secret rights donot expire, they have a perpetual lifetime
- A lower royalty is charged when/where no patent claims are in effect

Licensing income sources



Running Royalties about **65%**

Source: AUTM US Licensing Activity Survey 2016: Highlights. Website: https://www.autm.net/AUTMMain/media/SurveyReportsPDF/AUTM_FY2016_US_Highlights_no_Appendix_WEB.pdf

How to determine a royalty rate ?

Rules of thumb	*Arbitrary shortcut*
Negotiation	*Difficult to prove whether its equitable; selection & survivorship biases*
Court judgments	*Georgia-Pacific factors are difficult to determine; judge bias; unwilling participants*
Lawsuit settlements	*Similar deficiencies as court judgments*
Similar licensing transactions	*Difficult to find comparable circumstances; autocorrelation, selection & sampling biases*
Return-on-investment analysis	*Does not consider the economic value creation for the IP*
Differential analysis	*Study market evidence for pricing action when IP owner is price setter vs. price follower in the market (price erosion). Helpful in adversarial situations.*
Analytical methods	*Based on IP value proposition & economic activity. Study value chain, determine value attributable to each party & allocate value using profit split method.*

Source: Pellegrino M. BVR's Guide to IP Valuation. 2012, Business Valuation Resources LLC.

How to determine a royalty rate ? The analytical way

Exhibit 101. Royalty Rate Determination

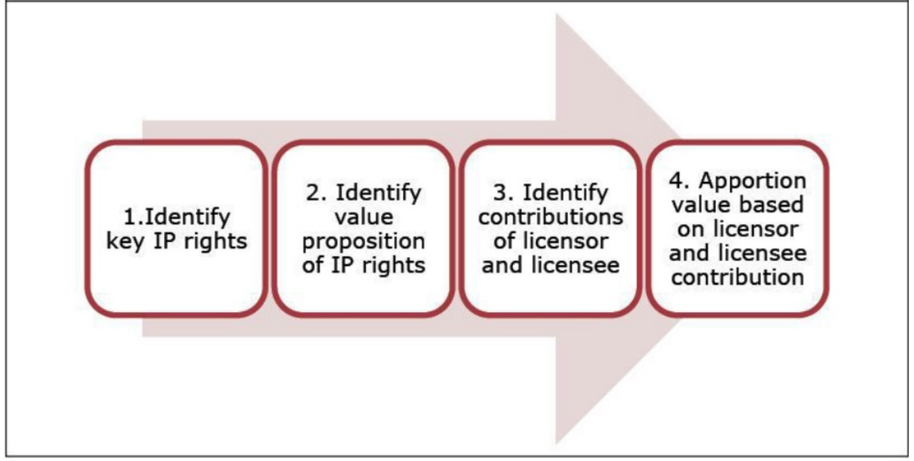


Exhibit 102. Vaccine Supply Chain From Development to Drug Company to Farmer

Source: Pellegrino M. BVR's Guide to IP Valuation. 2012, Business Valuation Resources LLC.

Exhibit 103. Summary of the Total Value Proposition of the Vaccine

Value Source	Amount
Reduced Mortality	\$11
Improved Condemnation Weight	\$110
Lower Feed Costs	\$20
Total Value Creation	\$141

Exhibit 104. Allocating Value Based on Contributions

Factor	Weight	Licensor Contributions	Licensee Contributions	Licensor Allocation	Licensee Allocation
IP Rights	12.50%	X		12.50%	
IP Enforcement	12.50%	X		12.50%	
IP Defense	12.50%	X		12.50%	
IP Commercialization	12.50%		X		12.50%
IP Manufacturing	12.50%		X		12.50%
Sales & Marketing	12.50%		X		12.50%
Distribution	12.50%		X		12.50%
Working Capital	12.50%		X		12.50%
Total Allocation	100.00%			37.50%	62.50%

Financial terms, running royalties

Running Royalties – Rate

Per Unit Royalties

Percentage Royalties – Rate

Percentage Royalties – Base

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties – Base

Net Sales

Licensed Products

Exclusions from net sales

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties – Base

Net Sales

- Licensee will generally favor defining Net Sales with reference to "actual amounts *received* by Licensee"
- The licensor, on the other hand, may prefer a definition based on "amounts *invoiced* by Licensee"

Example – Net Sales (Licensee-favorable)
"Net Sales" shall mean the actual amounts received by Licensee with respect to sales of Licensed Products.

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties – Base

Net Sales

- Licensee will generally favor defining Net Sales with reference to “actual amounts *received* by Licensee”
- The licensor, on the other hand, may prefer a definition based on “amounts *invoiced* by Licensee”

Example – Net Sales (Licensor-favorable)
"Net Sales" shall mean the actual amounts invoiced by Licensee and its Affiliates with respect to sales of Licensed Products.

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties – Base

Net Sales

Licensed Products

Exclusions from net sales

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties – Base

Licensed Products

- it is important to get the royalty right base when royalty rates are determined on general benchmarks in the industry
- Example : an apparel manufacturer licenses a popular cartoon character for use on children's pajamas at a royalty rate of 5%,
- The licensee prints the character only on the pajama tops, must it also pay the 5% royalty on the matching pajama bottoms that do not display the character?

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties – Base

Net Sales

Licensed Products

Exclusions from net sales

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties – Base

Exclusions from net sales

Example – Net Sales (with exclusions)

"Net Sales" shall mean the actual amounts [invoiced/received] by Licensee and its Affiliates with respect to sales of Licensed Products, less (a) shipping, packaging, delivery and freight insurance costs to the extent separately stated on the invoice; (b) standard quantity discounts, rebates and credits for returned goods; (c) applicable taxes and other duties assessed directly on sales of the Licensed Products; and (d) amounts received for training, technical assistance, maintenance, service and support.

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties – Base

Exclusions from net sales

- **Shipping and Packaging** fees received by the licensee for shipping, packaging and delivery are often excluded from Net Sales
- **Discounts** : If the licensee extends a $10 discount, the licensee's will expect the royalty to be based on the invoiced price less the discount. The licensor may argue that only standrd discounts (related to the quantity) are acepted

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties – Base

Exclusions from net sales

- **Rebates** : are a refund of part of a payment to its customer. The licensee will seek to exclude rebates paid from Net Sales. The licensor's may argue that rebates are similar to advertising,
- **Returns** – N products are returned by customers for a refund : deduction or adjustement
- **Taxes** (Sales, use or value-added) can be deducted

Financial terms, running royalties

Running Royalties – Rate

Percentage Royalties – Base

Exclusions from net sales

- **Licensee Services –** if the licensee charges its customers for services (training, maintenance, etc.) as part of its sale of Licensed Products,
  - the licensee will often argue that such amounts should not be used to calculate the royalty payable to the licensor.
  - the licensor will consider that add-on services are enabled only because the Licensed Products are being sold

Financial terms, a tentative list

Fixed payments

Running Royalties – Rate

Running Royalties – Adjustments

Sublicensing Income

Milestone payments

Equity compensation

Cost reimbursement

Most favored clauses

Audit clauses

Financial terms, a tentative list

Running Royalties – Adjustments

- Minimum Royalties
- Royalty caps
- Royalty buyouts
- Royalty escalation clauses
- Royalty stacking and bundling

Financial terms, a tentative list

Running Royalties – Adjustments

Minimum Royalties

- The licensor can require the licensee to pay a minimum royalty,
  – when the licensor has fixed cost commitments, such as facility and personnel costs, and few sources of income other than royalties
  – when the licensee's income is seasonal, with significant variations
- Minimum royalties may be structured in a variety of ways.
  - specify a minimum dollar amount that the licensee will pay during defined periods (e.g., every calendar quarter or year) during the term of the agreement

Financial terms, a tentative lit

Running Royalties - Adjustments

Minimum Royalties

Example – Quarterly Minimum Royalties (without crediting)

In the event that the total earned royalties payable by Licensee to Licensor hereunder during any calendar quarter during the Term of this Agreement is less than $250,000 (the "Quarterly Minimum"), then concurrently with Licensee's payment of earned royalties to Licensor hereunder for such quarter, Licensee shall, in addition, pay to Licensor an amount (the "Make-Up Amount") equal to the difference between the Quarterly Minimum and the amount of earned royalties payable with respect to such quarter, such that the total amount payable by Licensee with respect to such

such

quarter is the Quarterly Minimum.

Financial terms, a tentative lit

Running Royalties - Adjustments

Minimum Royalties

Example – Quarterly Minimum Royalties (with crediting)

In the event that the total earned royalties payable by Licensee to Licensor hereunder during any calendar quarter during the Term of this Agreement is less than $250,000 (the "Quarterly Minimum"), then concurrently with Licensee's payment of earned royalties to Licensor hereunder for such quarter, Licensee shall, in addition, pay to Licensor an amount (the "Make-Up Amount") equal to the difference between the Quarterly Minimum and the amount of earned royalties payable with respect to such quarter, such that the total amount payable by Licensee with respect to such quarter is the Quarterly Minimum. Licensee [**shall/shall not**] have the right to credit any overage of earned Royalties above the Quarterly Minimum in a given calendar quarter against any shortfall of earned Royalties below the calendar quarter Minimum during [any future/the next] calendar quarter.

Financial terms, a tentative list

Running Royalties – Adjustments

Minimum Royalties

Royalty caps

Royalty buyouts

Royalty escalation clauses

Royalty stacking and bundling

Financial terms, a tentative list

Running Royalties – Adjustments

Royalty caps

The converse of a minimum royalty is a maximum royalty or royalty "cap". Royalty caps may be applied to any given period under the agreement (e.g., quarter or year), or may be aggregated over the entire term of the agreement.

Examples – Royalty Cap

Example 1: In no event shall Licensee be required to pay earned royalties hereunder during any calendar quarter in excess of $1,000,000.

Example 2: In no event shall Licensee be required to pay earned royalties hereunder in excess of a total of $10,000,000 during the Term of this Agreement.

Financial terms, a tentative list

Running Royalties – Adjustments

Minimum Royalties

Royalty caps

Royalty buyouts

Royalty escalation clauses

Royalty stacking and bundling

Financial terms, a tentative list

Running Royalties – Adjustments

Royalty buyouts

- The licensee can pay a lump sum in order to "buy out" its remaining running royalty obligation.
- The buyout option is available at some defined point during the term of the agreement, often when some milestone is achieved.
- The buyout price is expected to compensate the licensor for its lost potential royalty revenue.
- The licensor may accept a discount from the projected present value of the remaining royalty stream against the certainty of the lump sum payment.

Financial terms, a tentative list

Running Royalties – Adjustments

Royalty buyouts

- The amount of the buyout can be expressed in absoluter terms or as a multiple of prior quarterly royalty payments.

- The licensee may prefer a one-time cash payment, greater than the prospective royalty stream, may be more desirable from a revenue reporting and profitability perspective than a running royalty that must be paid every quarter.

Financial terms, a tentative list

Running Royalties – Adjustments

Minimum Royalties

Royalty caps

Royalty buyouts

Royalty escalation clauses

Royalty stacking and bundling

Financial terms, a tentative list

Running Royalties – Adjustments

Royalty escalation clauses

- The parties must live with the deal that they have made.
- Under certain conditions, agreements can permit to changes the royalty rates and other financial terms
  - When changes are expressly provided for.
  - When changed circumstances are fraud or a force majeure

Financial terms, a tentative list

Running Royalties – Adjustments

- Minimum Royalties
- Royalty caps
- Royalty buyouts
- Royalty escalation clauses
- **Royalty stacking and bundling**

Financial terms, a tentative list

Running Royalties – Adjustments

Royalty stacking and bundling

Royalty Stacking Clauses

Royalties for Bundled Rights

Financial terms, a tentative list

Running Royalties – Adjustments

Royalty stacking and bundling

Royalty Stacking Clauses

- Many products are covered by multiple IP rights.
- A typical smartphone is covered by approximately 250,000 different patents.
- A motion pictureoften embodies rights from an adapted book, personal rights of publicity, fictional characters, original artwork and set designs, multiple musical works, the film’s cinematography and choreography, as well as distinctive buildings, product designs and logos that are shown.

Financial terms, a tentative list

Running Royalties – Adjustments

Royalty stacking and bundling

Royalty Stacking Clauses

- Royalty "stacking" describes a situation when a variety of IP is included in a product or work and the the royalties add up.
- Royalty stacking is a cost of doing business in a rights-centric world.
- Some agents attempt to coordinate and limit aggregate royalties charged by patent holders for a single product and to aggregate both patents and copyrights in pools.

Financial terms, a tentative list

Running Royalties – Adjustments

Royalty stacking and bundling

Royalty Stacking Clauses

- Royalty stacking clauses can be found in the biotechnology sector, or the semiconductors'.
- A clause can allow the licensee to reduce its royalty payments to the licensor if it is required to make patent-related payments to another party.

Financial terms, a tentative list

Running Royalties – Adjustments

Royalty stacking and bundling

Royalty Stacking Clauses

- The licensor may seek limitations, such as :
  - a threshold that must be met before any adjustment is made,
  - a discount on the amount of the Third Party Payment to be applied against Royalties due to the licensor
  - a limit on the overall reduction of such Royalties.

Financial terms, a tentative list

Running Royalties – Adjustments

Royalty stacking and bundling

Royalty Stacking Clauses

Example – Royalty Stacking Clause

In the event that Licensee, in connection with exercising the rights licensed to it under Section x, is required to pay license fees, royalties or similar amounts to a third party in addition to Licensor in respect of patents covering the manufacture, use or sale of the Licensed Products in any country solely by reason of the incorporation of Licensed Technology therein or the implementation of any of the claims of the Patent Rights ("Third Party Payments"), and such Third Party Payments exceed [25% of the Royalties payable to Licensor hereunder,] then the Royalties payable hereunder shall be reduced by [50% of] the amount of such Third Party Payments actually paid by Licensee with respect to Net Sales of Licensed Products during the same calendar quarter [, provided, however, that the amount of such reduction shall in no event exceed fifty percent (50%) of the Royalties otherwise due hereunder].

Financial terms, a tentative list

Running Royalties – Adjustments

Royalty stacking and bundling

Royalties for Bundled Rights

A licensor can license a bundle of IP rights as a single package.
It usually charges a single royalty that does not differentiate among the multiple rights included in the bundle.
The royalty typically remains constant, whether or not individual rights (typically patents or copyrights) are added or subtracted from the bundle.

Financial terms, a tentative list

Fixed payments

Running Royalties – Rate

Running Royalties – Adjustments

Sublicensing Income

Milestone payments

Equity compensation

Cost reimbursement

Most favored clauses

Audit clauses

Financial terms, a tentative list

Sublicensing Income

- The licensee may not itself sell Licensed Products
- The licensee can sublicense its rights to another party who manufactures and sells those products
- Those are common arrangements in biotechnology, branded goods, andliterary works.
- If a sublicensee is in the picture, what should the licensee be required to pay theicensor? The answer to this question can have significant financial implications for the parties.

Financial terms, a tentative list

Sublicensing Income

There are three sublicensing options :

1. *Include Sublicensee's Revenue in Licensee's Net Sales* on which the licensee's royalty is based.

2. *Include Licensee's Sublicensing Income in Licensee's Net Sales* on which the licensee's royalty is based. This includes all amounts received by the Licensee : sublicensing fees, royalties and milestone payments.

3. *Share Licensee's Sublicensing Income* -- The licensee can pay the licensor a percentage of all amounts received from its sublicensees, including sublicensing fees, royalties and milestone payments,

Royalty on income is usually higher rate than the Running Royalties that the licensee pays on its own Net Sales (e.g., 50%).

Financial terms, a tentative list

- Fixed payments
- Running Royalties – Rate
- Running Royalties – Adjustments
- Sublicensing Income
- Milestone payments
- Equity compensation
- Cost reimbursement
- Most favored clauses
- Audit clauses

Financial terms, a tentative list

Milestone payments

- Milestone and Diligence Requirements
- Types of Milestones
- Size of Milestone Payments
- Consequences of missed Milestone Payments

Financial terms, a tentative list

Milestone payments

Milestone and Diligence Requirements

- Milestone payments align the licensor's payment obligations with the licensee's likelihood of achieving commercial success
- However, the licensor seldom exercises direct control over its licensees' activities
- License agreements contain provisions that measure the licensee's progress against certain commercial or technological goals (milestones).
- The licensee's achievement of a milestone can trigger a payment by the licensor

Financial terms, a tentative list

Milestone payments

Milestone and Diligence Requirements

- Milestones are "diligence requirements" that serve multiple purposes
  - the achievement of a milestone can be coupled with a payment obligation by the licensor,
  - it rewards the licensee for achieving a substantial step toward the ultimate commercial goal of the agreement
  - It incentivizes the licensee to achieve that milestone.
- The licensor can stagger payments of increasing size to the rights.

Financial terms, a tentative list

Milestone payments

Milestone and Diligence Requirements

- Milestone payments provide cash to fund operations associated with commercialization.
- Milestone schedules relate to the period before commercial launch of a product, and are made before the licensee begins to sell products and earn royalty income.
- .

Financial terms, a tentative list

Milestone payments

Milestone and Diligence Requirements

- Milestones also appear in license agreement for statutory reasons :
  - under the Bayh-Dole Act of 1980, academic institutions may patent their federally-funded inventions, but are subject to requirements.
  - the obligation to report to the national funding agency "on the utilization or efforts at obtaining utilization that are being made" by the institution and its licensees with respect to each federally-funded invention.

Financial terms, a tentative list

Milestone payments

- Milestone and Diligence Requirements
- Types of Milestones
- Size of Milestone Payments
- Consequences of missed Milestone Payments

Financial terms, a tentative list

Milestone payments

Types of Milestones

- Milestones
  - are intended to reflect the achievement of defined goals
  - along the road to the full commercial exploitation of a licensed IP right.
- Milestones reflect steps along the pathway to commercialization, on diverses dimensions :
  - regulatory
  - technological or
  - commercial.

Financial terms, a tentative list

Milestone payments

Types of Milestones

- Regulatory milestones include:
  - The Licensee files an « Investigational New Drug (IND) » application for a Licensed Product with the drug administration
  - The Licensee [begins/completes] Phase I/II/III clinical trials of a Licensed Product
  - The Licensee receives the drug administration approval to market a Licensed Product in a given country
  - The Licensee receives regulatory approval to market a Licensed Product in [country]

Financial terms, a tentative list

Milestone payments

Types of Milestones

- Technological milestones include:
  - A working Licensed Product prototype demonstrated to Licensor
  - A specified technical/scientific threshold that is met
  - The Licensed Product certified by an international certification body
  - the Licensed Technology submitted to a recognized standards body
  - The Licensed Technology adopted by a recognized international standards body as an industry standard
  - A “beta” version of the Licensed Product is released

Financial terms, a tentative list

Milestone payments

Types of Milestones

- Commercial milestones include:
  - A Licensed Product announcement at a major trade show or event
  - A manufacturing agreement for Licensed Products by the Licensee
  - A completed construction of its manufacturing facility for Licensed Products by the licensee
  - The appointment by the Licensee of a distributor for the Licensed Product in [country/region]
  - The saleof the first 100 units of Licensed Product or in [country/region]
  - The Licensee earns $XXX from sales of Licensed Products

Financial terms, a tentative list

Milestone payments

Milestone and Diligence Requirements

Types of Milestones

Size of Milestone Payments

Consequences of missed Milestone Payments

Financial terms, a tentative list

Milestone payments

Size of Milestone Payments

- There is no uniform methodology for determining the size of milestone payments.
- They are dependent on the licensee's anticipated cash needs as its commercialization program for the licensed IP progresses.
- For example,
  - a drug candidate advances along the development pathway,
  - the achievement of successive milestones usually triggers increasingly large payments.
  - the scope and cost of human clinical trials increases dramatically.

Financial terms, a tentative list

Milestone payments

Size of Milestone Payments

- There is no uniform methodology for determining the size of milestone payments.
- They are dependent on the licensee's anticipated cash needs as its commercialization program for the licensed IP progresses.
- For example,
  - a drug candidate advances along the development pathway,
  - the achievement of successive milestones usually triggers increasingly large payments.
  - the scope and cost of human clinical trials increases dramatically.

Financial terms, a tentative list

Milestone payments

Size of Milestone Payments

Example – Due Diligence Milestones and Payments

As further consideration for the rights granted under this Agreement, Licensee will payLicensor a non-refundable, non-creditable milestone payment upon the satisfaction of the following diligence milestones within thirty (30) days following Licensee's written certification thereof, provided that such diligence milestone is achieved by the corresponding date specified below:

Diligence Milestone	Milestone Payment	To be Achieved by
Licensee begins U.S. Phase II clinical trial of Licensed Product	$15,000,000	Mar. 1, 2022
Licensee begins U.S. Phase III clinical trial of Licensed Product	$25,000,000	Jan. 1, 2024
U.S. FDA grants marketing approval of Licensed Product	$50,000,000	Jan. 1, 2026
First U.S. sales of Licensed Product	$100,000,000	June 30, 2026

Financial terms, a tentative list

Milestone payments

- Milestone and Diligence Requirements
- Types of Milestones
- Size of Milestone Payments
- Consequences of missed Milestone Payments

Financial terms, a tentative list

Milestone payments

Consequences of missed Milestone Payments

Milestones may be structured in a number of legal ways :

- binding commitments – an unachieved milestone is a breach in the contract,
- termination triggers –if the licensee does not achieve a milestone,
- setting goals – effort failing to meet the goals do not breach the contract,
- payment triggers – achievement equates a payment
- requirements for maintaining exclusivity –– an unachieved milestone may lead the licensor to convert some or all of the license from exclusive to non-exclusive.

Financial terms, a tentative list

- Fixed payments
- Running Royalties – Rate
- Running Royalties – Adjustments
- Sublicensing Income
- Milestone payments
- Equity compensation
- Cost reimbursement
- Most favored clauses
- Audit clauses

Financial terms, a tentative list

Equity compensation

- When a licensee is short of financial resources, a licensor may accept shares of the licensee's capital stock as full or partial compensation for a license.
- This arrangement is common in university spin-out licenses
- The issuance of stock involves corporate and securities laws that are beyond the scope of this clas book.
- Any licensing expert should be familiar with the basic contractual terms surrounding the issuance of equity securities in licensing agreements
- U.S. universities generally seek equity compensation from start-up licensees in the range of 5– 10% of the company shares.
- UK universities seek higher equity shares, in the range of 50%.

Financial terms, a tentative list

Equity compensation

Example – Equity Compensation

Licensee will grant to Licensor _____ shares of the Licensee's common stock (the "Shares"), which represents ___ percent (____%) of the issued and outstanding equity securities of Licensee, calculated on a fully diluted, as converted basis, as of the Effective Date, after giving effect to the issuance of the Shares.

The Shares are fully paid as partial consideration for the license of certain intellectual property rights granted by Licensor to Licensee under this Agreement.

Such Shares shall be issued to Licensor and evidenced by a stock certificate, registered in the name of Licensor, that is delivered to Licensor within thirty (30) days following the Effective Date.

Financial terms, a tentative list

Equity compensation

Example :

- the licensor wants equity compensation equal to 5% of the licensees equity.
- the licensee has a total of 50,000 shares of common stock issued to its
- founders, and 10,000 shares of preferred stock, which converts to common stock at a ratio of 1:5.
- The total outstanding shares, on an as-converted basis, at the Effective Date is thus 100,000.
- The licensor's share will be 5% of the total, taking into account the issuance of the licensor's shares.
- Thus, the licensor will receive 5,263 shares, as this equals 5% of 105,263.

Table 1 Benefits and risks associated with primary compensation mechanisms used in license agreements

Type of compensation		Licensor	Licensee
Equity[a]	Benefits	Captures some future value regardless of product's stage of development Probability of a liquidity event is higher as equity can be cashed in before a company has a commercially successful product	Enables preservation of cash
	Risks	Equity can be illiquid and difficult to value Institutions with equity in licensees that are university startups/spinouts will be diluted in subsequent financing rounds unless the investment is upsized	Equity issuances are dilutive and the value of licensed IP contributing to the value of equity may be difficult to ascertain
Upfront payment[b]	Benefits	Payment received at earliest stage of development that captures immediate value	May enable reduction in other downstream economics by offering more upfront and/or guaranteed compensation
	Risks	Downstream economics such as milestones and royalties may be much more meaningful Securing more upfront and/or guaranteed compensation typically reduces long-term compensation, such as royalties	Cash payout is challenging if licensee is a small company/startup needing to conserve cash Risk of overpayment given challenge of successfully developing and commercializing a pharmaceutical product
Milestone payment[c]	Benefits	Yields economic benefits as clinical, regulatory or commercial milestones are met Can be monetized to accelerate payments and mitigate some clinical, regulatory and commercial risk	Enables preservation of cash until de-risking events occur
	Risks	Milestone payouts are binary in nature and are difficult to design, negotiate, and forecast	Requires company to reserve cash for milestone payouts, which can be difficult to predict
Royalties[d]	Benefits	Aligns long-term interests of licensor and licensee If based on a proportion of product sales, is not subject to inflation Can be monetized to accelerate payments and mitigate some clinical, regulatory, and commercial risk	Mitigates risk of initial overpayment and enables preservation of cash until product is commercialized
	Risks	Typically used under assumption that product will be commercialized within IP term	Ongoing royalty payments to licensor will have negative impact on profitability of product

[a]Equity includes transfer or issue of company shares from the licensee to the licensor. [b]Upfront payments include consideration paid by the licensee to the licensor following execution of the license agreement, and may include reimbursements for costs incurred. [c]Milestone payments are lump sum payments triggered by specific clinical, legal, regulatory, or commercial events paid by the licensee to the licensor. They may also be tied to the issuance of patents or other legal outcomes. [d]Royalty payments are regular, recurring payments, typically based on product sales, paid by the licensee to the licensor.

Financial terms, a tentative list

Fixed payments

Running Royalties – Rate

Running Royalties – Adjustments

Sublicensing Income

Milestone payments

Equity compensation

Cost reimbursement

Most favored clauses

Audit clauses

Financial terms, a tentative list

Cost reimbursement

- Universities and small companies license patents,and require that the licensee reimburse them for patent prosecution costs that they incurred prior to the execution of the agreement.
- When the license is exclusive, the licensee often covers the entirety of these costs.
- When the license is co-exclusive, or if it is exclusive only in a particular field, then the cost is often split among licensees.
- Non-exclusive licensees typically do not reimburse the licensor for prosecution costs.

Financial terms, a tentative list

Cost reimbursement

- The level of patent prosecution costs vary depending on
  - the complexity of the technology,
  - the development stage of the technology,
  - the stage of prosecution (e.g., provisional application, utility application, examination, issuance, post-grant opposition),
  - how many applications and patents have been filed,
  - whether foreign protection has been sought,
  - and whether competitors have,or are likely to, oppose the patent(s) at the Patent Trial and Appeals Board (PTAB).

Financial terms, a tentative list

Cost reimbursement

- Mature patents maintenance fees range from $10,000 to 6+ figures.
- Patent prosecution continues after a license agreement is signed, and maintenance fees continue to become due with respect to issued patents.
- If the licensee has agreed to assume responsibility for prosecution matters then the licensee will cover ongoing prosecution and maintenance costs.
- If the licensor retains this responsibility (e.g., if it has granted several exclusive licenses in different fields and has not granted prosecution
- responsibility to any one licensee), then the licensor may seek periodic reimbursement of at least a portion of its prosecution and maintenance costs.
- In some cases, these costs may be split by the licensor evenly among all licensees.

STRADIvalue

Financial terms, a tentative list

Fixed payments	Running Royalties – Rate	Running Royalties – Adjustments	Sublicensing Income	Milestone payments
Equity compensation	Cost reimbursement	Most favored clauses	Audit clauses	

Financial terms, a tentative list

Most favored clauses

- "Most-Favored" licensee clauses find their roots in the world of international statecraft, in which the most favorable trade status that can be afforded to another country is that of a "most-favored nation" or MFN.
- Most-favored licensee clauses are not uncommon in licensing agreements
- They retain the label "MFN" even when used in this private law context.
- Most-favored clauses protect the licensee against competitive disadvantage arising from the licensor's later grant of more favorable contractual terms to a competitor of the licensee.

Financial terms, a tentative list

Most favored clauses

Examples – Most Favored Licensee

Example 1

If during the term of the Agreement the Licensor grants to any unaffiliated third party licensee ("Third Party") [that is of a similar size and geographic focus as Licensee] a license to the Licensed Patent in the Field of Use on financial terms that are [substantially] more favorable than those granted herein [for similar quantity and kind of Licensed Products], then Licensor shall promptly notify Licensee of such license, describing the Third Party's more favorable terms in reasonable detail, though the identity of the Third Party need not be revealed. Licensee shall then have a period of [60 days] in which to consider whether to exercise its rights under this Section. If it so elects, it shall notify Licensor in writing, and thereupon this Agreement shall automatically be amended to provide for such more favorable terms. Such amendment shall be retroactively effective to the date on which the more favorable terms were granted to the Third Party. In the event that such amendment requires the parties to make any adjusting payments, these shall be made within sixty (60) days following Licensee's exercise of its rights hereunder.

Financial terms, a tentative list

Most favored clauses

Examples – Most Favored Licensee

Example 2

The aggregate Fees charged to Customer for [the Services/Software] during the term of this Agreement shall not exceed [ninety-five percent (95%) of] the aggregate fees contemporaneously charged by Licensor to any other [non Affiliate customer / Competitor of Customer] for comparable services and software (taking into account product mix, term of use, number of seats/copies, and corresponding non-monetary benefits received by Licensor). Licensor shall adjust the Fees charged to Customer on a going-forward basis so that such Fees do not exceed such threshold; provided that if Licensor reduces the Fees charged to Customer to comply with such requirement and then subsequently ceases to charge Licensor's [other customers/such Competitor] at or above the price that triggered such reduction, Licensor shall thereafter be entitled to increase the Fees charged to Customer to levels consistent with such pricing requirement, but in no case to levels above those originally charged under this Agreement. Notwithstanding the foregoing, under no circumstances shall Licensor be required to provide any refund, rebate or credit to Customer in respect of Fees paid prior to the charging of such lower fees to such other customer/Competitor.

Financial terms, a tentative list

Most favored clauses

Issues related with MFN clauses

1– Comparable scope: how broad its scope should be in terms of *agreement coverage ?* What types of later agreements will need to be compared to the agreement with MFN treatment to determine whether their terms are more favorable? Should a patent license agreement be compared only to other patent license agreements? Or should other types of agreements, such as merger agreements, supply agreements and settlement agreements, also be subject to MFN comparison?

Financial terms, a tentative list

Most favored clauses

A patent covers a method for rapidly recharging a lithium-ion battery,
It is licensed to an electric vehicle manufacturer at a flat rate of $7.50 per car. The licensee has MFN protection.
Should that protection extend to licenses that the patent holder grants to manufacturers of smartphones at $1.00 per phone?

A pharmaceutical manufacturer is licensed to sell a patented drug in the United States. Should it be automatically entitled to the same rates as a manufacturer distributing the drug in the developing world ?

Financial terms, a tentative list

Most favored clauses

Issues related with MFN clauses

2- Licensees and fields definition; which future *licensees and fields of use* are subject to comparison under an MFN clause. Should the first licensee be entitled to terms as favorable as those granted by the licensor to entities of all descriptions or only entitles that can reasonably be viewed as competing with the first licensee (it is generally accepted that MFN clauses do not apply to intercompany transactions between a licensor and its affiliated companies)?

A trademark licensor might be reluctant to grant a small, specialty business – say a producer of hand-crafted porcelain dolls -- MFN protection against lower rates that it extends to a large multinational toy manufacturer that will produce far larger quantities of licensed goods at lower price points

Financial terms, a tentative list

Most favored clauses

Issues related with MFN clauses

3- Scope of contractual terms: *which contractual terms* are subject to MFN treatment. ?

The first licensee pays a running royalty rate of 5% to manufacture and sell widgets covered by the licensor's patents.

The licensor grants a license to a second licensee at a royalty rate of 3%.

The first licensee's MFN clause is triggered.

Financial terms, a tentative list

Most favored clauses

If the second licensee pays a large up–front fee in order to secure this lower royalty rate, are situations comparable ?

Should the first licensee be entitled to the benefit of the 3% rate if it made no up–front payment?

Should it be given the option to make a similar up–front payment in order to gain the advantage of the lower running royalty rate?

Likewise, what if one licensee purchases equity of the licensor? Should the first licensee be required to make such a purchase in order to enjoy the lower royalty rates enjoyed by the second?

Financial terms, a tentative list

Most favored clauses

- With respect to the comparison of financial terms, some MFN clauses contain a materiality or substantiality qualifier.
- Licensors will argue that an MFN adjustment should not be triggered based on trivial differences among licenses (e.g., slightly different interest rates for late payments, payment terms or foreign exchange rates).
- Once such a qualifier is introduced, there will always be an issue of what constitutes a "material" difference.
- When large amounts are at stake, the parties are well-advised to be as specific as possible in this regard, perhaps specifying that any difference in royalty rates or total compensation of more than x% will trigger an MFN adjustment.

Financial terms, a tentative list

Most favored clauses

- Most MFN protection is limited to protection against more favorable financial terms. There are hundreds of other contractual provisions – notice periods, warranties, indemnities, etc. – that will vary from agreement to agreement.

- If a later agreement gives a second licensee 45 days to cure a breach rather than 30 days, should the first licensee's MFN clause give it the benefit of that longer cure period? What if the second license also has a less favorable confidentiality clause? Must the first licensee accept the bad terms of the second agreement in addition to the good?

- What if some terms in the second license are entirely inapplicable to the first license – how would the electric vehicle manufacturer's license for battery charging technology be adjusted if a smartphone manufacturer received a large milestone payment upon approval by the Federal Communications Commission?

- The above example contains some possible limitations on the type, size and field of use of later licenses that are subject to MFN treatment, but additional language may be necessary depending on the specifics of the parties' transaction.

Financial terms, a tentative list

Most favored clauses

Once these terms are decided, the process for implementing MFN treatment must be specified in detail.

This includes:

- a notification by the licensor of the more favorable terms,
- a period during which the licensee may consider them,
- some mechanism for the licensee to gain the benefit of the more favorable terms.
- possibly, an agreement may specify that more favorable terms are automatically extended to the licensee.

When the licensee makes an up-front payment or the licensor refunds amounts previously paid by the licensee, the parties should have a reasonable period of time in which to calculate and effect such reconciliation.

Financial terms, a tentative list

Most favored clauses

- Some MFN clauses exclude any refund of prior amounts paid by the licensee.
- The retroactive effect of an MFN adjustment must be considered.
- One approach is to make the more favorable terms apply retroactively to the date on which they were first granted to the second licensee.
- This eliminates any advantage that the licensor may gain by delaying its notification to the licensee.
- However, retroactive adjustments can have significant accounting and financial implications, which should encourage the licensor to notify the licensee as promptly as possible of the more favorable terms.

Financial terms, a tentative list

- Fixed payments
- Running Royalties – Rate
- Running Royalties – Adjustments
- Sublicensing Income
- Milestone payments
- Equity compensation
- Cost reimbursement
- Most favored clauses
- Audit clauses

Financial terms, a tentative list

Audit clauses

- The licensee's payments are based on information solely in the licensee's possession: its revenue and sales figures, the achievement of certain technical and commercial milestones, etc.
- The licensee is required to submit periodic reports to the licensor, informing of the facts underlying payments due during the period.
- These are the royalty reports or statements.
- The licensor has the right to "audit" the licensee's records in order to verify the information stated in its royalty reports.
- Audit provisions are complex to negotiate,
  - the information that they seek is confidential to the licensee,
  - the information is of significant commercial and competitive value.

Financial terms, a tentative list

Audit clauses

Examples – Audit Clauses [*Licensor-favorable*]

Licensor may cause an audit to be made of the applicable Licensee records and facilities (including those of Licensee's Affiliates) in order to verify statements issued by Licensee and Licensee's compliance with the terms of this Agreement. Any such audit may be conducted by Licensor or its independent accountants or consultants during regular business hours at Licensee and/or Customer's facilities, with one (1) week's notice, unless Licensor has reason to believe that Section x or y has been breached, in which case Licensor may audit Licensee and/or Customer's activities upon 24 hours notice. Licensee agrees to provide Licensor's designated audit team prompt access to the relevant records and facilities. Licensor will pay for any such audit, unless the amount of any underpayment is greater than [5%] of the amount due, or if the audit reveals a material breach of any provision of this Agreement. In this case, Licensee shall reimburse Licensor for such audit costs in addition to the underpaid amounts and applicable interest charges. Licensor reserves the right to disclose the results of any audit conducted under this Section x to its own licensors that have a need to know.

Financial terms, a tentative list

Audit clauses

Examples – Audit Clauses [*Licensee favorable*]

Licensor will have the right, no more than once during any twelve month period, to engage an independent certified public accounting firm reasonably acceptable to Licensee to audit the books and records of Licensee for the sole purpose of confirming the accuracy of Royalty Statements provided hereunder. The auditor shall be required to enter into a nondisclosure agreement with Licensee covering all information learned or derived during such audit, and shall not be permitted to disclose to Licensor any such information other than its determination that an underpayment may have occurred, and in what amount. All costs and expenses of such audit shall be borne by Licensor unless such audit reveals any previously undisclosed underpayment in excess of [10%] of the total amount due during any calendar year and such underpayment is confirmed in writing by Licensee or by a court of competent jurisdiction in a final judgment from which no appeal may be taken, in which case Licensee shall reimburse Licensor for the reasonable and customary fees of its external auditing firm.

Financial terms, a tentative list

Audit clauses

Who Conducts the Audit? –

- The licensor will prefer to inspect the licensee's book and records itself – this is cheaper than hiring an external firm and will also give the licensor insight into the licensee's internal accounting practices, sales figures, and the like.
- The licensor's personnel may also be more attuned to the industry and be better able to recognize inconsistencies or suspicious entries.
- The licensee, on the other hand, will be concerned about the disclosure of its confidential business records to the licensor, which may compete with the licensee or deal with the licensee's competitors.
- As a result, the licensee usually prefers that the audit be conducted by an external auditing firm and that records disclosed to the auditor be subject to a confidentiality agreement.

Financial terms, a tentative list

Audit clauses

Who Conducts the Audit? –

- Using an external auditor increases the cost and burden for the licensor,
- it makes it easier for the licensee to conceal information that the auditors may not know to ask for.
- When the licensor agrees to hire an external audit firm, it may also insist that its own financial personnel be permitted to participate in the audit, or at least to view the records provided to the auditors.

Financial terms, a tentative list

Audit clauses

What Records are Subject to Audit? –

- In an audit, the licensor seeks access to as many records of the licensee as possible : computer files, databases, sales receipts, invoices and the like.
- The licensee seeks to confine the subject of the audit to specific records supporting its royalty reports.
- A key question : will the licensee ill give the auditor the right to search records as it wishes, or whether records for review will be provided by the licensee ?

Financial terms, a tentative list

Audit clauses

What Records are Subject to Audit? – Cost Shifting

- The licensor is responsible for the costs of conducting the audit
- there is a trigger for shifting that cost to the licensee.
- The trigger is usually an underpayment by the licensee, though the amount of the triggering underpayment can range from 0 to upwards of 10%.
- Which costs are shifted ? Should the licensee cover only the licensor's out-of-pocket fees paid to an external audit firm, or should it also pay for the time and effort expended by licensor's internal personnel?

Financial terms, a tentative list

Audit clauses

- *Disputing Audit Results –*
- In some cases, the licensee will dispute the findings of the audit.
- A path for resolution must be specified.
- The agreement can contain a general dispute resolution clause
- If a dispute resolution clause is not included in the agreement, then the audit clause should include language specifying the mechanisms used to resolve disputes over the audit results (e.g., mediation and arbitration).
- If such mechanisms are not specified, then the licensee's only option may be to refuse to pay the underpayment detected by the auditor and allow the licensor to sue for breach at which time a court will resolve the dispute.

It is time to identify the cash flows of the licensing agreement

On licensee and licensor side

Understanding the IP : case study

Investment cash flow

LICENSOR	LICENSEE

Operating cash flow

LICENSOR

LICENSEE

Financing cash flow

LICENSOR

LICENSEE

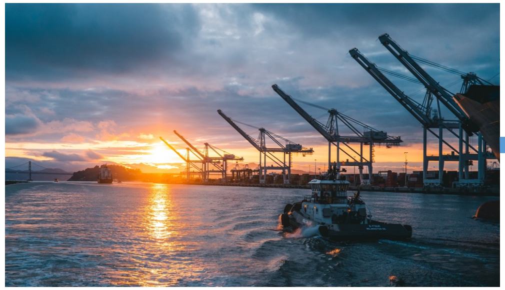
IP Valuation in the Context of Licensing Agreement

How Other Key Terms Influence the Value of the Subject Matter

Financial modelling recommendations

Photo by Carlos Muza on Unsplash

Financial modelling



Photos by Unsplash authors

Industry is a complex activity

Balance Sheet N

Income Statement N

Cash Flow Statement N

Represented in 3 statements

Financial modeling is the process of creating a representation of a company's future benefits, i.e., revenues, expenses and earnings; in most cases, the model takes the form of a spreadsheet that is useful to calculate a value, a range of values, or/and a distribution of values. is used to estimate the economic impact of an investment opportunity and compare alternative projects.

Financial modelling

« A model structures and relates (in a standardized manner) elements of data organized in a spreadsheet in such way that the dynamic of relations can become subject of an analysis »

Information items

DATA

Organized/ structured data
Formalized relations

SPREADSHEET

Input data

Algorithm

Prediction

MODEL

A model is specified by a data scientist or the valuator. It combines data, formulas, and functions in order to represent a process.

Financial modelling is not about pricing

- Financial modelling aims at representing the business related to an activity (IP, project, entity, group).
- It is useful to understand the underlying features of the examined activity
- It supports the development of assumptions to produce predictions
- The outcome are results which can be relevant for decision making (or not) and for formulating recommendations
- Financial modelling help escaping the determinism of simple capital budgeting models

Financial modelling, do's

- ❑ Check the Accuracy of input data.
- ❑ Adaptability/ Flexibility of the model can be achieved with a well constructed model, and high level of relation definition quality.
- ❑ Reality and simplicity: Complexity reduction is the aim, but it should avoid eliminating key assumptions.
- ❑ Intelligibility/ Ergonomy: save efforts when returning to the model and further usage.
- ❑ Validity: Source of input data are preferably legitimate and recognize.

GARBAGE IN GARGABE OUT

ONE INPUT ONE ENTRY

FIND THE PICASSO IN YOURSELF

TREAT YOURSELF WITH KINDNESS

VALIDITY DRIVES RELIABILITY

Example: a capital budgeting simple model

this file contains :

3 sheets	assumptions and their revisions/ reliability / Qs data and main strucures results

this xls file aims at :

1. restating the vision of the PM
2. understanding the behaviour of the project components
3. defining a base line for each component, and a distribution (with its dispersion)
4. allowing specifications of a simulation in order to find a set of a thousands NPVs

This allows to shift from quadrant I-II to quadrant III and IV, through recognizing the uncertainty of the project

data sheet organization :

P&L best case	P&L mid case	P&L bad case	P&L worst case

NPV STUDY

CUMULATED DISCOUNTED CASH FLOWS WITH

NPV	**wacc**
IRR	**CF in Y9**
PB	**average CF need**
IR	**time funds need**
	% of Terminal value

PV OF FLOWS BEHAVIORS

dispersion : risk
average cash needed (in pv)

CASH POSITION END OF YEAR

cash position capex
cash position operations
negative cash position

MAIN LINES	STATS	DISTRIBUTION	VALUES	GROWTH RATES
revenues				
cogs				
op costs				

cogs as function of revenues

cogs as function of volumes

op costs asfunction of revenues

Data understandability: tips 1/3

- **Identify Forecast vs. Effective data in the headline:** Change the headline colour. You can use one colour for past data, one colour for medium term projections (with strong hypothesis) and a third colour for long term hypothesis (more uncertain hypothesis)
- **Data format:** Analysts se blue colour for hard-coded data (that won't change: historical assumptions, drivers) and black for formulas, calculations reference deriving from the same sheet, any thing that will end up with sensitized data. Some professionals use other colours to signal references coming out of other sheets or other files.
- **Data format, suspicions of errors to fix** : when a data looks awkward and requires verification, colour the cell in red. Other checks can be underlined in yellow.
- **One line, one entry, one calculation** : for example, split volumes, growth rates, prices, changes in prices, inflation in separate lines
- **Avoid complex formulas** : break those down in multiple steps

Data understandability: tips 2/3

- Convention should be consistent across sheets and models (example: how subtractions or negative values are displayed)
- Avoid naming cells, use the excel grid reference, and identify one mother cell to which all cells will be linked (use precedents to identify it). The corollary is that there should be One location for one input.
- Avoid linking files, however neat you are in storing files, you'll end up in troubles.
- Avoid hiding lines or columns, prefer grouping lines
- Prefer less tabs, even if you need A3 format to print them
- Use check lines to verify your figures are correct (example : balance sheet total…

More advanced tips 3/3

- Use as many keyboard shortcuts as possible.
- Audit the model by using Trace Precedents and Trace Dependents
- Use complex functions rather than simple ones: XNPV and XIRR rather than NPV and IRR functions, which work with single periodicity
- Use IFERROR in the syntax of your formulas, this will avoid impossible further calculations
- Use Xlookup (RechercheX)
- Remove_gridlines when presenting or sharing the financial model; it makes for a cleaner, more polished output document.