Guidebook of IP/Technology Transfer

Track 1 Entry-level Tech Transfer Professional

Topic 1.12.3 Pre-negotiation Valuation of IP/Technology

Commercialization

- A common misperception: it is necessary to determine the absolute value of a new technology in order to enter into a license agreement
- Fact: it is impossible to accurately determine an absolute value of a new technology (and its related IP)
- The goal: develop a **flexible** value-position that is the basis for a win-win negotiation

• How?

Understand the technology and its potential benefits

Understand how the technology will be profitable for the licensee

Quantify with approximations

A comment on Patent Valuation Is a car that goes 1 kph faster.....valuable?a car that gets 20 kpg morevaluable? Was the first airplane valuable?the first controllable airplane? Was the first light bulb valuable?the first light bulb that lasted days not minutes? Is a faster moving slide-rule valuable? An atomic-powered car? A test for a disease that is incurable?

A cure for a very rare disease?

Valuable Inventions? The "baby mop"



Valuable Inventions?

"Steering wheel food tray"



Valuable Inventions?

"car muffler food oven"



no coal, wood or other fuels are needed in travel having some fun

Valuable Inventions? "shoe umbrella"



A comment on Patent Valuation

Value is ultimately based on

INVENTIVENESS

Inventive = Unique performance characteristics These unique performance characteristics confer certain advantages/superior attributes Pre-negotiation Patent Valuation It is not the job of the TTO to calculate the absolute value of a new technology and then negotiate hard to get it.....

It is the job of the TTO to facilitate the market's determination of the value of the new technology through a flexible and transparent negotiation process and a dynamic "value capture mechanism" (i.e., a well-drafted license agreement)

- Valuation of a patent on an invention that has never been commercialized requires acceptance of this fact:
- It is practically impossible to predict with accuracy the future value in the marketplace of a previously uncommercialized patent

but

 It is possible to establish rational parameters of potential value and to make educated predictions of value based on knowledge of the technology, its' competitive advantages, existing markets and products, risk factors, financial models, and valuation methods.

- Determining the value of a non-commercialized patent requires many assumptions, projections, educated guesses, judgements, extrapolations, risk assessments, etc., etc.
- Refining these factors (solidifying, justifying, substantiating, verifying, etc) requires significant amount of time and money
- A "high quality" patent valuation (for M&A, infringement litigation, purchase) requires many, many hours of professional time

= \$XXX,000

Even a "low cost" valuation requires significant amount of professional time

= \$XX,000

A TTO should not determine a patent value as a "take it or leave it" position

A pre-negotiation patent valuation establishes an opening position for a negotiation to arrive at a win-win license agreement

- The Approach:
- Characterize the invention technically
- Define the Property Control Position (PCP)

(patents, trade secrets, trademark, etc.)

- Determine its applications and assess its potential impact
- Assess its economic relevance
- Describe its competitive advantages and, understand its' disadvantages
- Understand the value of the PCP

The Approach:

- Consider how the technology and the PCP can be used to make money
- Imagine plausible business models
 - What will be sold?
 - Who will buy?
 - Why?
- Construct plausible scenarios for profitability

Characterize the invention technically

What are its' inventive features

How does it work?

How does it compare with existing methods

Is it faster, harder, cheaper?

Does it create new opportunities?

Assess its economic relevance

What problems does it solve?

Is that problem economically important? How important?

 Determine its applications and assess its potential impact in application: Agriculture, human medicine, food, communications, etc.

Based on two primary elements

Inventiveness

technical uniqueness and superiority

The Unique Value Proposition

The Unique Value Proposition

The "UVP" is always founded on Inventiveness

(uniqueness and superiority of the performance characteristics, and the PCP)

The UVP concisely describes:

The benefit(s) the invention will provide...... [describe them clearly, concisely, thoroughly]at a cost, that a future buyer (the customer) will perceive as a compelling "value" "Value" = Benefits – Cost

[define and quantify the benefits and costs]

The UVP

 Explains how the invention provides the unique value (specific benefits – cost) to a future buyer, compared to alternatives.

 Is a clear and concise statement that summarizes why someone would buy the product or service based on the invention.

 Describes how the invention will produce a product or service that will add more value, create more profit, better solve a problem than current alternatives.

The UVP

 Makes it clear how the invention will solve future buyers' problems or improves their situation so that profitability is enhanced

 Identifies why the technology is superior to the competition (unique differentiation).

What makes a good UVP?

Clarity! It's easy to understand.

- Communicates concrete results that will result from using the technology and its products and/or services.
- States how it's different (and better) than the alternatives.

 Avoids hype (... "never seen before, amazing miracle product"), superlatives ("best"), and business jargon ("value-added interactions")

Can be read/understood in about 10 seconds.

UVP Examples

"Achieves the same level of pest control as current chemistries at 30% cost reduction."

"Produces materials that exhibit 25% increased life at temperatures above 450°C at a cost comparable to existing high temperature materials."

"Increases the manufacturing yield of large Li batteries by 50% with no cost increase"



"A natural topical antiseptic 90% as effective as current chemical antiseptics."

"A tomato variety that exhibits 50% more solids and 25% more sugar per unit weight than currently available varieties."

"Reduces scours mortality in new-born calves from 15% to 1.5% at a cost of less than 6 Pesos per animal."

Describe the technology's competitive advantages

but.....

don't forget to understand its disadvantages
that temper the value
(a professional will know how to discuss these)
think about how these disadvantages could be mitigated or overcome

Understand the Property Control Position Intellectual Property (IP)

- Patent (issued or pending? Where?
- Trade secret
- Copyright
- Trademark

Tangible property

- Seeds, plants
- Cell lines

Is the property position feasible and effective?

Product-Enabling Value of

the Technology/IP

 Stand-alone product or a component in a larger technology bundle?

- What percentage of the product or service is enabled by the technology/IP?
- Examples:

100% = a patent on the auto

- 50% = a patent on the auto drivetrain
 - 25% = a patent on tires
 - 1%? = a patent on windshield wiper

- Now you know the invention's applications, it's competitive advantages and property control position...
- Now what?
- How will the licensee make money?
 - (i.e. generate a profit)
- What will the licensee sell?
- To who? Why will they buy?
- How will your licensee sell?
- Will your licensee manufacture, distribute, sell?
- How can your licensee price it to sell and be profitable?
- The decisive factor: <u>The Business Model</u>

Li battery Case Study

novel technology improves lithium batteries.

sulfur nanoparticles in cathode

- eliminates the problem of cathode disintegration caused by repeated charge/discharge cycles. This disintegration is the primary cause of lithium battery failure and shortened lifetime.
- manufacturing cathodes with sulfur nanoparticles also eliminates the problem of high defect-ratios in manufacture of lithium batteries larger than 10,000 cubic centimeters.
- Large Li batteries very costly due to high-defect manufacture problem

Lithium batteries currently a \$4.25billion/yr global business (small (<10,000 cm³) at \$3.0billion and large (>10,000 cm³) at \$1.25billion.

- The market for small batteries is projected to expand annually at between 5% and 10% over the next ten years. Sales of large Li batteries will probably exceed small batteries, if the yield problem is solved.
- 20 Li-batt manufacturers world-wide. No company is selling lithium batteries larger than 100,000 cubic centimeters.

The Intellectual Property Portfolio:

- The invention is covered by the following two PCT patent applications, both filed six months ago:
- Patent #1 covers a method for making lithium battery cathodes with sulfur nanoparticles;
- Patent #2 covers lithium batteries larger than 10,000 cm³
 with sulfur cathode nanoparticles.
- The PCT applications designate all countries.

Li battery Case Study

Current Stage of Development:

- Proof of concept experiments have been successfully completed. The research group that invented it has amassed significant data on various means of manufacturing small, prototypes.
- No working models have been constructed due to the cost (at least \$1million is required).
- Your company has invested approximately \$2.0 million in the invention, to date.

Li battery Case Study: Assignment

Part 1: Define the License Parameters:

- IP Licensed
- Scope of Rights (exclusive, non-exclusive)
- Geographical Scope
- Field-of-Use

Part 2: Establishing License Terms

You are in license negotiations with BatTech, one of five largest Li batt manufacturers in the world. They want a world-wide, exclusive license for all fields-of-use and have asked for your Term Sheet. Set the amounts of the following:

- License Fee
- Royalty rate
- Milestone payments

Li battery Case Study

Relevant licensing information:

- BatTech has approximately 35% share of global small Li batt market stable over past five years.
- BatTech has 15% global market share of large Li battery market growing at 2.5% over past five years.
- BatTech has strategic partnership with Samsung, suppling 100% of Samsung's smart-phone batteries. BatTech has R&D partnership with Tesla for large Li batts
- BatTech small batteries sell for \$50, with a COGS of \$20 typical profit margin of \$30 (or 60%). Its large batteries sell at \$2,500-\$15,000, with a COGS range of \$2,250 - \$14,500, for a typical profit margin of \$250-\$500 or 10%-3%.
- BatTech projects that, with your technology, it will achieve 50% global small-battery market share, and 30% large battery market share within 7 years.
- Several other large Li battery companies have expressed interest in licensing your invention.

How to Manage IP Valuation

- Determining an absolute value is very difficult
- New technology commercialization is very risky
- Licensor & Licensee have difficulty in agreeing on value The solution?
- A multifaceted, "value-capture" envelope
 - \rightarrow a license agreement with multiple terms
- Fortunately,
 - the license structure and process
 - makes it much, much easier
- Why?
- The License is a

"Mutual Risk-Sharing & Value Capture Envelope"

Technology Valuation: some basics

 Your unilateral valuation is a starting point of a two-way dialogue to create real technology value (in the marketplace)

- Since it is practically impossible to predict the future value of a technology, the best you can do is create a "system" for capturing future value and sharing risk
- The "system" is embodied in a flexible and multi-faceted license agreement
License as "Value-capture Envelope"

The license has various mechanisms for allocating the share of risk and reward between the parties

The ideal balance accounts for:

- the potential value of the technology
- the risk it may not achieve that value
- the investment risk the licensee must make
- Investment licensor has made
- the value of the IP (inventiveness)
- the IP owner's "opportunity cost"

The License Value-capture Envelope

Various mechanisms allow balance

- Scope of the license
- License fee
- Royalty on sales
- Milestone payments
- Minimum annual royalty
- Sublicensing rights and revenue-sharing
- IP costs & enforcement
- Transfer of License to 3rd parties

Building the Value-Capture Envelope

- Create multiple value-capture mechanisms
- Upfront fees, milestone payments, exclusivity payments
 - Royalty on sales

Sub-license revenue sharing equipment, other in-kind

- Establish valuation assumptions, justify them, be prepared to modify them in the professional dialogue
- Consider alternative benefits (e.g. crosslicensing, technical and/or business linkages)
- "front-loaded" vs. "back-loaded" value capture

License as Value-capture

Envelope:

Scope of the license

- Exclusive vs. non-Exclusive, co-Exclusive, time-limited
- Field-of-use
- Territory
- All commercial-use rights, sales only, etc.

Creating a framework for valuation

- No "cookie cutter" formula each technology is unique; fact-specific Identify one value proposition (initially pick the most valuable) Quantify the value proposition initially "back of the envelope" estimates Educated assumptions are critical to value estimate
- Consider the "Product-Enabling Value" of invention (car vs. windshield analogy)

Building the Value-Capture Envelope

Consider all these as "moving parts" in a fine-tuned "value capture" device: Scope of the license License fee Royalty on sales **Milestone** payments Minimum annual royalty Sublicensing rights and revenue sharing Future IP IP costs **IP** enforcement Transfer of License to 3rd parties

Technology Valuation: some basics

 No one can accurately predict the true (market-based) value of a new technology

- The license should be designed so that both parties realize tech/IP value
- Remember the risk the commercial partner is taking
- The commercial partner probably understands their industry and business assumptions better than youlisten and respect their knowledge

There is a role for Valuation Methods:

- As a firm starting point for a negotiating position
- Not an absolute and accurate number
- Provides ranges of value
- Enhances comfort levels of negotiators, managers, owners, and inventors
- Provides a rational basis for a complex and nearly impossible determination
- (i.e., fixing an accurate number to a future outcome)

Quantifying IP/Tech value:

some methods

- Active market
- Comparables

Cost

Replacement or replication cost

- Income projections/probabilities
- Willing buyer/willing seller

Valuation Methods:

Comparables

Difficult to find comparables to unique technology

- This info is not publically available
- Royalty rates are more accessible through professional networks, industry standards
- Very difficult to compare one deal to another

Valuation Methods:

Replacement or Replication Cost

- Estimate cost of R&D
- Doesn't reward the inventiveness/IP
- Valuing technology at a percentage of cost to make invention is difficult to argue against
- Provides a "floor" for a reasonable valuation

Income method

Income projections /probabilities

(Present value of future economic benefits discounted by the risk that such benefits won't be realized)

Use existing sales to predict revenues

Assume sales in future

Assign risk factors

Technical, business, IP, legal, etc.

Calculate a Net Present Value ("NPV")

Valuation Methods

Licensor's NPV Income method

For each future year (1-10):

- Make projections of total sales of licensed product
- Multiply by the % enabling-value
- Multiply by the royalty rate
- Construct a "Discount Rate" (<1.0) composed of

technical risk

- business risk
 - regulatory risk
 - legal (IP risk)

the Discount Rate typically = 1%-10%

 Multiply each year royalty income by Discount Rate and add them all = NPV

NPV: on-line calculator & definition

• <u>https://www.calculatestuff.com/financial/npv-</u> <u>calculator</u>

https://www.investopedia.com/terms/n/npv.asp

Valuation Methods

Licensor's NPV Income method

- NPV as starting point
- Apply adjustment factors
 - Licensee's R&D investment cost
 - Licensor's R&D investment cost
 - IP "quality"
 - Market factors
 - **Business enhancements**
 - Other factors

Valuation Methods:

"Willing Buyer & Seller"

- The primary mechanism for valuing new technology
- Win-win requires:

the licensee will be as profitable as possible

and share as large and fair a portion with the licensor, as possible

Technology Assessment/Prep for Valuation: The Approach

Characterize the invention, assess technical and market attributes; determine potential property position

Determine market relevance

- Define the unique value proposition (UVP) and quantify if possible
- Understand the "equation":

stage of development vs. risk Use valuation methods as a baseline

Add value adjustment factors

Establish a flexible valuation framework

Creative Adjustment of Value Capture Envelope

Maintain basic valuation scale and terms

Adjust terms and payments to suit the parties

An Example with License Fee & Royalty:

Creating a Value-Capture Envelope:

Invention valued at \$250k NPV

\$250k up-front, no minimums, 2% royalty

.....or

\$100k up-front, (3) \$50K annual payments, 2% royalty.....or

- \$50k up-front, (4) \$50k annual payments, 3% royalty.....or
- \$25k up-front, (5) \$45k annual payments, 5% royalty.....or
- Be flexible and creative in creating the valuecapture envelope

Defining the Invention

The Critical Impact of Scope of Patent Claims on Market Relevance

What is claimed is:

1. A writing instrument that is hand-held, and containing an ink reservoir, with a ball apparatus at one end of the cylinder that delivers ink from said reservoir to writing surface only during the act of writing, and wherein the inkdelivery emitter device is retractable, and the cylinder is blue-striped.

16 billion manual writing implements (all pens, pencils sold per year)

5 billion pens sold per year

4 billion ball-point pens sold per year

10,000 blue stripe, ball point pens sold per year

evaluating alternatives Exclusive or non-exclusive licenses?

Does the IP/tech require significant investment?

Balancing maximum return vs. broad dissemination

Consider short, medium, long term returns

- Need for key partners (remote management, R&D collaborations, infringements)
- Exclusive licensees as agents vs. internal management

Institutional philosophy

evaluating alternatives Exclusive or non-exclusive licenses?

- Exclusive licensees typically much more motivated to develop/commercialize the IP/tech
- The licensor can impose much more stringent diligence requirements on the exclusive licensee
- Investment in IP/tech development, commercialization, marketing and sales much higher with exclusive licenses

An exclusive license:

Secures a managing partner Maximum incentive for licensee/investors Needs strict "diligence" requirements for product development, promotion, sales, etc. (no "sitting on the shelf") Stringent sublicensing incentives/disincentives a useful mechanism

Variations on Exclusive licenses

(Assume stringent diligence provisions)

- Field-of-use
- Geographical
- consortia
- Limited exclusive period (head-start)

Examples of Licensing Strategy Alternatives

(for patent on antimicrobial compound) Exclusive, world-wide, all uses

(ag, industrial, vet, human) Exclusive, world-wide, veterinary applications only

- Exclusive, world-wide, agricultural only
 - Exclusive, world-wide, vet and ag only
 - Exclusive, Mexico only, all fields
 - Exclusive, Europe, vet only
 - Etc., etc., etc.,

What is the current state of development?

What will it cost to develop 1st product?

Is the market size in alignment with the investment required?

How does the stage of development relate to technology risk and value?

the Risk of a New Technology

Comprised of different types of risk

- Technical
- Market
- Business
- Regulatory
- Public Relations
- Political

the Risk of a New Technology

 Technical risk will it work as expected all the time is it durable manufacturing issues necessary integration with other tech does it require post-sale support

Technology Assessment/Prep for Valuation the Risk of a New Technology

Market risk

 will market buy it
 at the price expected
 how will competition react
 repeat sales
 is the market space growing

the Risk of a New Technology

Business risk

can company manage profitably is the business model sound is the company sustainable is market share increasing or decreasing **The Equation:**

Stage of Development vs. Risk

Initial invention = highest risk = still high risk Proof of principle = lowers high risk a little Patent application = high-to-medium risk Prototype, alpha-test (lowers risk) beta-test (further lowers risk) = maybe medium risk Patent issued = medium-low risk 1st product sale = low technical risk Sales **Repeat sales** = even lower risk Etc.....

Each development stage reduces risk/increases value idea laboratory data available patent applied for first working model field data available animal studies prototype built and tested alpha test completed beta test completed testimonials from potential customers

Technology Readiness Level (TRL)

TRL 9	System proven in operational environment
TRL 8	System complete and qualified
TRL 7	Integrated pilot system demonstrated
TRL 6	Prototype system verified
TRL 5	Laboratory testing of integrated system
TRL 4	Laboratory testing of prototype component or process
TRL 3	Critical function, proof of concept established
TRL 2	Technology concept and/or application formulated
TRL 1	Basic principles are observed and reported

These also add value:

issued patent (high quality patent) PCT filed other IP well-managed tangible property relevant market research partnerships on-going R&D funding reputation of inventor(s), institution
License Negotiations

the approach

- Establish a framework for negotiation
- Know your "BATNA"

(Best Alternative to No Agreement)

- Establish valuation assumptions and your ability to justify them
- Build a "value-capture envelope"
- Consider the "big picture" of business development strategy
- Have a license template ready....and understand its provisions
- Understand and appreciate the needs of your partner

What is IP License Negotiation?

a rational dialogue between professionals*, based on sound reasoning, good assumptions, available data, honesty, and trust

It is NOT:

"Bargaining" or "shrewd" win-lose manipulations

Delivering a "take it or leave it" offers

* Professionals that share the same goal!

What is IP License Negotiation?

Similar to the way engineers design a solution to a problem

- Fact based
- Transparent
- Mutually beneficial
- Creative
- Not ideological
- Dispassionate,

but enjoyment in the solution

Pre-negotiation Valuation

Underlying Principles

- It is impossible to accurately define a value of a new technology and its IP
- 10 "Valuation Experts" will give 10 different values for the same technology/IP
- Experts talk in valuation ranges and use different methods to arrive at approximate values
- There is no single number which will reasonably account for potential value
- All valuation is simply a basis for a give-andtake dialogue

Pre-negotiation Valuation

Underlying Principles

- Approximations are your only choice
- A pre-negotiation valuation prepares for an opening position in a negotiation
- It is built on many assumptions
- It is fraught with risk

technical (will it work? as hoped?)

marketplace (will customers value it?)

business (can it be profitably manufactured? and sold?

- regulatory issues?
- how will the competition respond?

License Negotiations

Establish a framework for negotiation

- It's a two-way dialogue between licensor and licensee
- Transparency, honesty, fact-based negotiations
- Licenses must be sustainable they're longterm relationships, unlike a sale
- Establish lines of communication, be clear on lines of authority and decision-process

Rough Income Projections

- Understand where the technology fits in the market
 - Rough estimate of the size of the market
 - Enabling value of IP to product
 - COGS of product and profit margins
 - Conservative estimates of market penetration

Prenegotiation valuation

Cost Recovery

Cost to invent, develop, patent

The IP/invention Commercialization Process

License Negotiations

- Establish valuation assumptions and your ability to justify them
- Do your homework on the technology, its technical and market attributes
- Educated use of assumptions to build a valuation model

Structuring License Financial Terms building the Value-Capture Envelope License Fee, Royalty, Minimum royalties & Milestone Payments, Amounts & schedule, cost sharing, etc., etc.....

Remember: these are all directly linked to:

The value of the IP/technology

inventiveness (uniqueness and superiority) type/scope/enforceability, value proposition

- Grant of Rights
- Level of Exclusivity
- Geographical scope
- Sublicensing rights

Creating a Value-Capture Envelope

.....continued

Determining (and justifying) up fronts and milestones

- Based on eventual revenue generation (market size, sales, etc.) Risk factors
- Cost-to-develop
- Are there others who want it?
- Negotiation between buyer and seller
- Determining royalty rates:
 - Cost-of-goods sold
 - Sales price
 - Gross profits
 - The "Goldschieder Rule"
 - Don't tie royalty to "profits"

License Negotiations :

Consider the "Big Picture"

financial return versus:

technology development, strategic business development

Negotiating The License

- Agree on the enabling value of the technology in the future product
- define the product's market characteristics and margins
- use the above to arrive at a rational royalty structure and amount
- be aware of royalty-stacking issues and accounting complexities

Typical License Elements

Define the property very clearly

Define the scope of rights

Geographical scope

Fees

related to milestones when possible (shared risk)

Royalty

be aware of industry standards

royalty "stacking" issues and their management

Sublicensing

Liability, biosafety, regulatory approvals, stewardship issues

Developing License Terms

License Fee

(typically upfront, lump sum, non-refundable, can be staggered over time or events)

Royalty

(usually linked to sales)

Minimums & Milestones

(assures diligence, shares risk)

Amounts & schedule

Ongoing cost sharing

(patents, R&D, bioproperty, etc)

Structuring License Terms

License Fee

Factors:

product demand market size & characteristics competition investment to date and future cash flow needs opportunity cost exclusivity development status scope of technology

Establishing a License Fee

- An NPV, Cost, Comparables, etc. valuation
- Opportunity cost
- Scope of rights granted
- Earnest money (depends some on company size)
- Investment is at its riskiest

this can make for difficult negotiations since the sides may not agree on risk level and/or potential value of technology

 Upfront vs. spread out (time or event-based) risk sharing, especially if event based

Establishing a License Fee

Example

- NPV = \$500,000
- Lumpsum upfront = \$500,000 due on signing
- Scheduled (time-based):

\$100,000 due on signing

\$100,000 each year for next 4 license years

Scheduled (event-based)

\$100,00 due on signing

\$100,000 due on first prototype

\$150,000 due on 1st sale

\$150,000 due on anniversary of 1st sale

Setting a Royalty

Royalty (typically tied to sales)

- The standard: % of Net Sales (not fixed) both parties share market risk linked to sales and profit margins
- Ideally based on business reality
 - COGS vs pricing: gross profit margins
- Excellent means of getting the parties on same page (important for building the partnership)
- Industry standards (use as guide, not absolute)
- Remember: the licensee must be able to sell profitably

Structuring License Terms

Royalty

Factors:

business model market characteristics (i.e., typical margins) COGS and pricing scope of technology enabling value (spark-plug vs. whole car) the "Goldscheider 25% Rule" royalty stacking (3rd parties)

Setting a Royalty Rate

Use industry standards as a guide (ranges)

• The "25% Rule as *starting point*:

The Rule: the owner of the patent that fully (100%) enables the product deserves 25% of the gross profit on sale of the enabled product.

Example of a patent that fully enables the product: \$200 sale price

- \$100 Cost of Goods Sold (COGS)
- = \$100 Gross Profit

Patent owner share: 0.25 x \$100 = \$25

Royalty = \$25/\$200 = 12.5%

Using the "25% Rule" & Enabling Factor For a product with a \$100 Gross Profit on sale of \$200 Patent 100% enables product: royalty = 12.5% Patent 75% enables product: royalty = 9.4% Patent 50% enables product: royalty = 6.25% Patent 10% enables product: royalty = 1.25%

The "25% Rule"

- Provides a starting point
- Adjusted according to "enabling value" (%)
- Typically, after analysis of manufacturing cost, market pricing dynamics, value-add by licensee....
- The parties agree to a simple approximation 5% not 4.85%
 8% not 7.89%
- 25% Rule is a good starting point but almost never the final royalty rate agreed-to

Royalty rate variations

- % can increase over time
- % can decrease over time

License Fee & Royalty Rate linkage

License Fee and Royalty Rate typically linked

Front-loaded (higher license fee)

vs. back-loaded (higher royalty)

Examples (for the same IP/technology):

\$500,000 license fee + 2.0% royalty \$200,000 license fee + 5.0% royalty \$100,000 license fee + 7.5% royalty no fee (not recommended) + 10% royalty

Milestone Payments

- Should be based on business and technology reality
- Parties should agree on development plan and timeline, understanding hurdles and their risks
- At key de-risk events, a payment to be made
- Time-based milestones can also useful

Minimum Annual Royalty

Best based on business and technology reality

- Parties should agree on development plan and timeline, understand hurdles and risks
- Based on sales projections (timing and amounts) of Licensee
- Economic "teeth" of duty of commercial diligence
- Financial penalty for failure to commercialize
- Ongoing leverage by licensor to assure development

Structuring License Terms

Minimums & Milestones

Linked to the product development schedule

- Time-based
- **Event-based**

Sublicensing rights and revenue sharing

A value to be negotiated not given away lightly

- Licensee/licensor can share sublicense revenue in any manner they negotiate
- Mandatory sublicensing clauses can be used
- Incentives for sublicensing can be used (assures widespread dissemination) may be integrated with milestones or minimums owed

Future Inventions/IP

A value to be negotiated - not given away lightly

Ownership and disposition

based on trust-filled relationship

(and focus on success of IP/technology)

 Try to find solution that is in best interest of both parties

Track 1 Entry-level Tech Transfer Professional

Topic 1.12.3 Pre-negotiation Valuation of Technology

Thank you