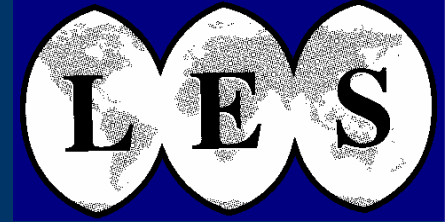




Curso “Valoración de Tecnología y Negociación de Licencias”

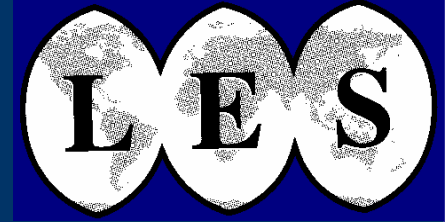
“Technology Valuation and License Negotiation” Course

Licensing Executives Society



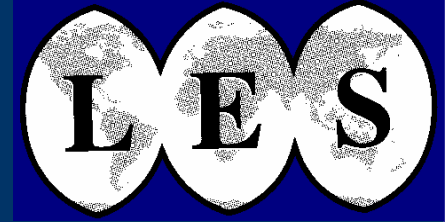
- The Licensing Executives Society Is An Association Of Licensing And Technology Transfer Professionals dedicated to the creation, promotion and implementation of business opportunities through equitable technology licensing, both locally and internationally
 - 31 national and regional societies
 - 12,000 members
 - Visit LES International at www.lesi.org

LES continued



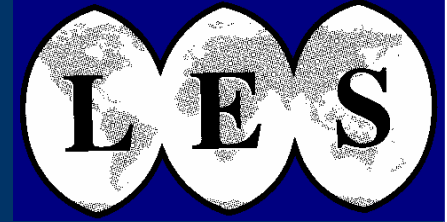
- Two main components:
 - Learning:
 - Workshops;
 - Seminars;
 - afternoon current-affairs meetings; and
 - knowledge repositories in the forms of web site, les Nouvelles, LESI database, etc
 - Networking:
 - local and international events;
 - LESI membership directory, etc.

LES continued



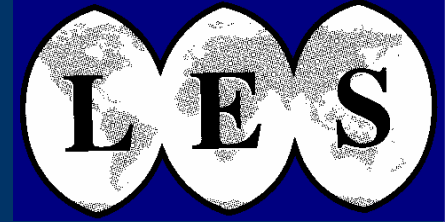
- Objectives:
 - Non-profit organization.
 - Encourage high professional standards.
 - Assist members in improving their skills and knowledge.
 - Inform public, business and government about licensing and technology transfer.
 - Publish latest, most accurate information on the subject of licensing.

Schedule



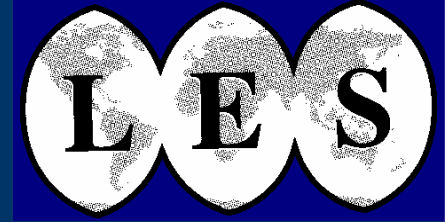
- Part 1: 08:30-10:30
 - Valoración de Tecnología / Valuation:
 - Background and Elements
- Receso - Coffee Break 10:30-11:00
- Part 2: 11:00-13:00
 - Negociación de Licencias / Negotiation:
 - Background and Elements
- Juego de Licenciamiento 08:30-10:30
 - Licensing Game

Objectives And Principles



- Students will be able to:
 - Identify and apply valuation approaches in the context of the business use of IP
 - Recognize and practice elements of successful negotiation
- In a way that:
 - Is a win-win for all parties
 - Includes extensive preparation and planning

Evolution Of Licensing



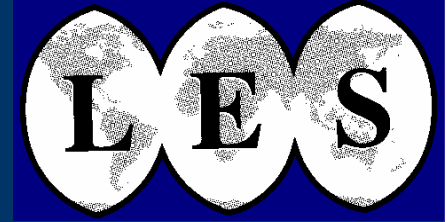
- How Licensing Activities Have Evolved
 - 1980's Freedom to Operate, Ability to Exclude
 - 1990's Out-License for Revenues
 - 2000's In-License for Fast High-Quality R&D
- Corona In-Licensing of Technology Video
- Valuation and Negotiation Activities Need to Respect This Changed Environment



Valoración de Tecnología / Valuation: Background and Elements

Intellectual Property Basics
Intellectual Property Commercialization
Determining Reasonable License Fees And Royalty Rates

Awareness



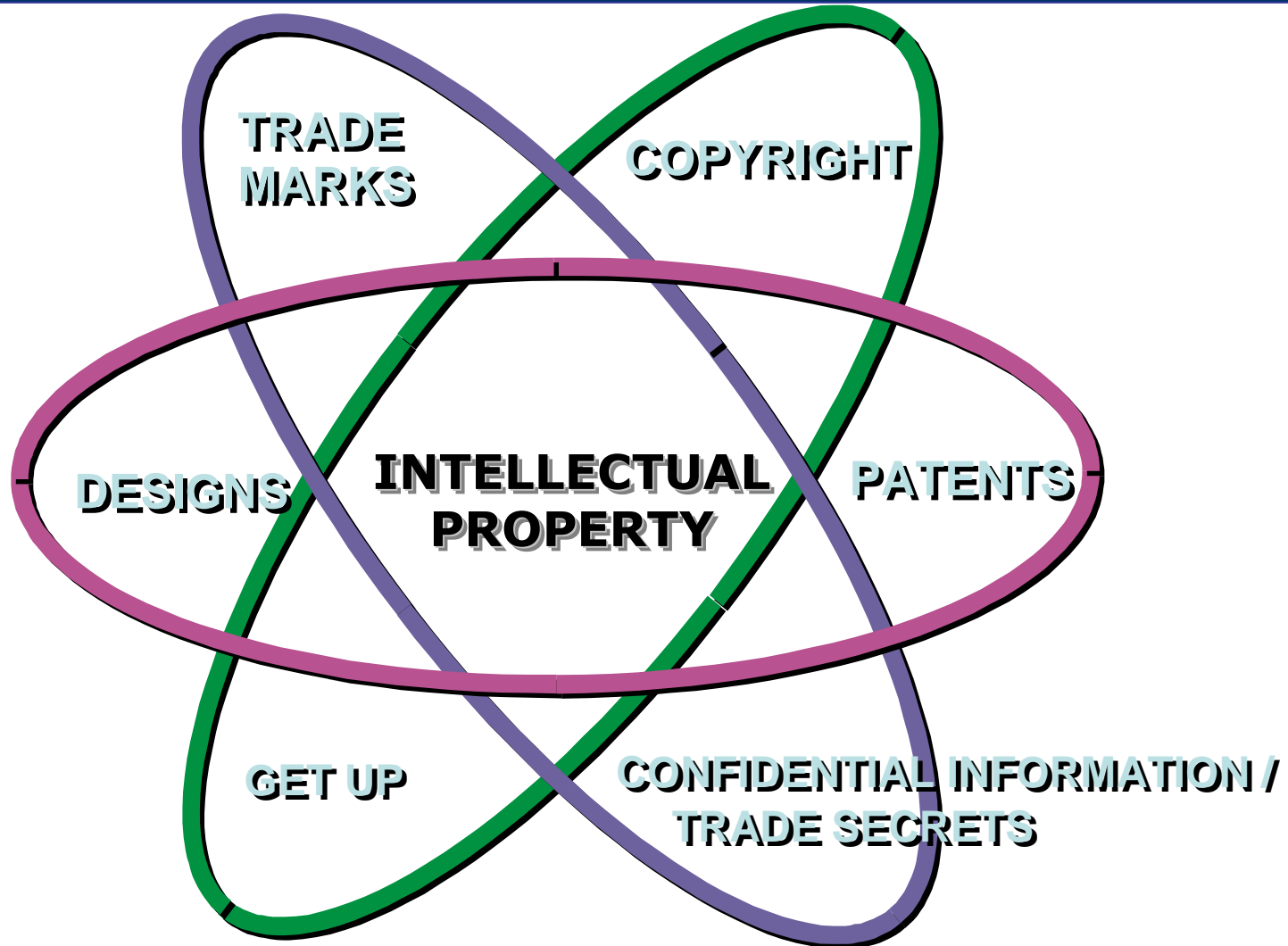
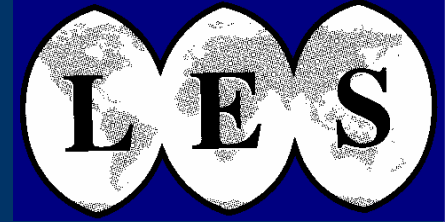
- “It is no longer simply the legal department’s problem. CEO’s must now be able to formulate strategies that capitalize on and maximize the value of their company’s intellectual property assets to drive growth, innovation and cooperative relationships with other companies.”

– Bill Gates Chairman Microsoft Financial Times November 12 2004

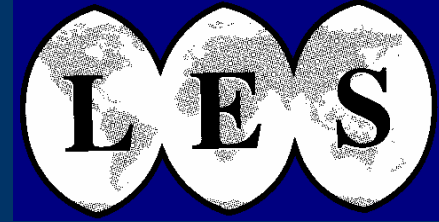
-
- “I can make a whole lot more money skillfully managing intangible assets than managing tangible assets”

– Warren Buffet, CEO Berkshire Hathaway

WHAT IS IP?



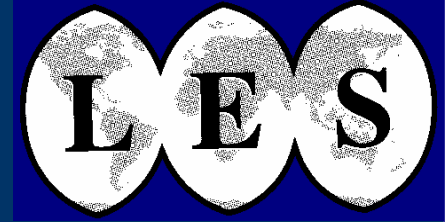
Main classes of IP



Patents
Copyrights
Trademarks
Registered Designs
Trade Secrets
Get up

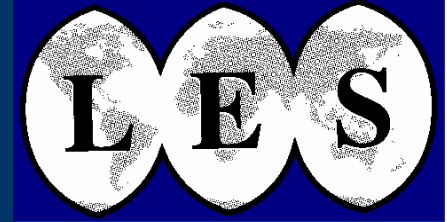


Basis of IP



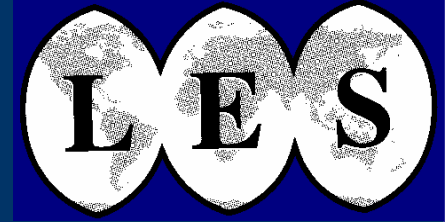
- Common Law
 - Trade secrets
 - Confidential information / know how
 - Get up
- Statutory
 - Patents
 - Registered designs / design patents
 - Copyright
 - Trademarks

IP IS VALUABLE



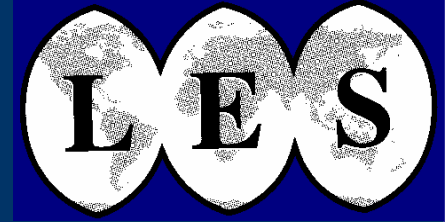
- Widely recognized as a tool for economic growth
- May be exploited as income generating asset
- Can have substantial value
 - E.g. COCA COLA valued at US\$ 70 billion

Valuation



- Determination of an asset's intrinsic worth
 - Represents only one data point in a negotiation
- Differs from “Pricing”
 - Strategy involved in negotiating to a deal

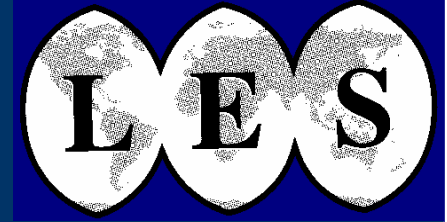
ROYALTY PAYMENTS



Two important principles:

1. Sharing of licensee's profit
2. Can be reduced to a single equivalent payment for comparison and computation

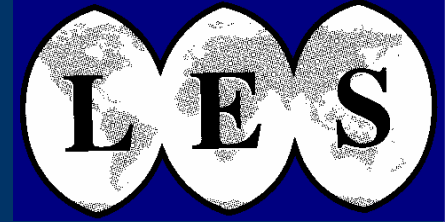
AGE OF TECHNOLOGY



The technology life cycle curve

- When technology enters the market, demand and supply generally determine prices

When Is Which IP Used?

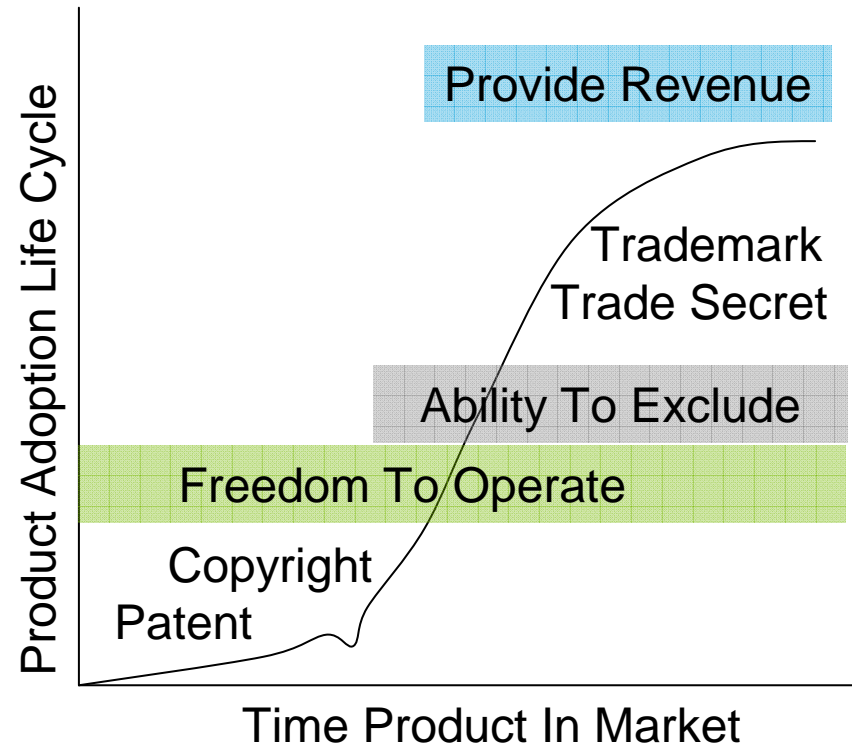


IP Use Is Governed By Position In The Life Cycle

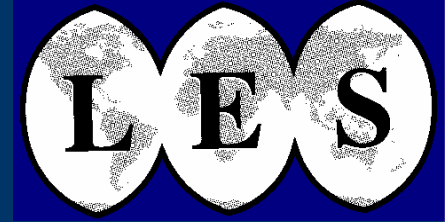
- Complementors vs. Competitors
- “Crossing The Chasm” Model

All IP Must Have Its Genesis At The Start Of The Product Life Cycle

Royalties Vary By Position In The Life Cycle

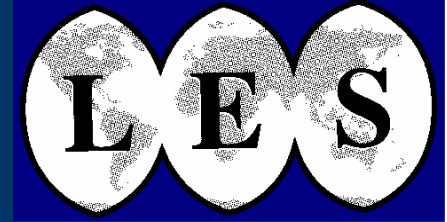


ROYALTIES AND THE TLC



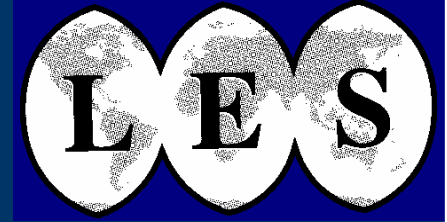
- Ascendant phase:
 - highly profitable technologies
 - high risks (from competitive developments)
 - reasonably high cost technology
 - short duration of high profitability period

ROYALTIES AND THE TLC



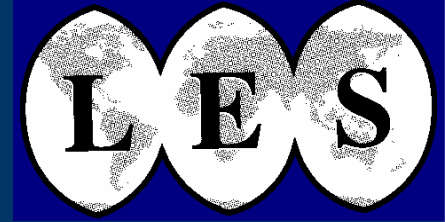
- Mature phase:
 - low risk in large markets
 - low cost, low risk technology
 - ‘Commodity product’-like returns
 - fairly long duration of profitability level

ROYALTIES AND THE TLC



- Decline phase:
 - riskier than in mature phase
 - low cost technology
 - low returns
 - decline period variable

PAYMENT FOR TECHNICAL SERVICES



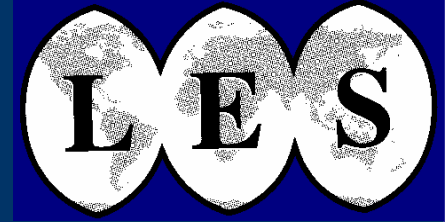
Payments are made for:

- Information content, data and show-how
- Transfer of technical and commercial skills
- Training and ‘holding hand’ assurances

Cost of technical services determined by:

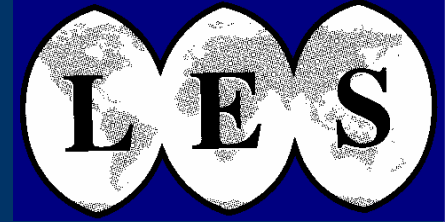
- Overheads for gathering information, formatting and transmittal
- Kinds of skill
- Duration of assistance
- Opportunity costs

ROYALTIES



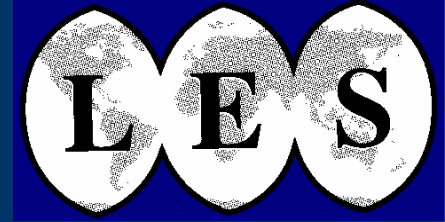
- Forms of royalty expression
 - Lump sum royalties
 - Running royalties
 - Combination / Hybrid
- Computing base:
 - Sales value (variations: gross and net prices)
 - Unit production
- Cumulative and graduated royalty schedules

VALUE CONSIDERATIONS

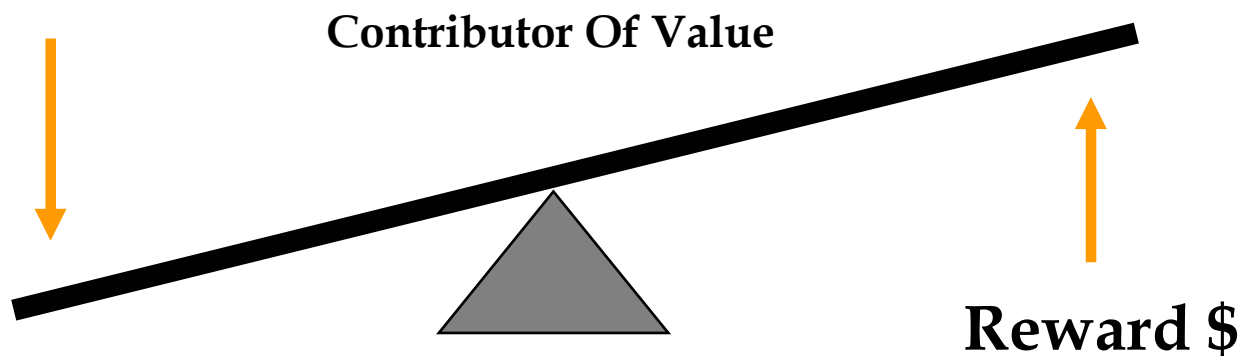


Type	Licensor	Licensee
Lump Sum	<p>Technology failure borne by licensee</p> <p>Blockbuster success reaped by licensee</p>	<p>No exchange of financial information</p> <p>Risk of success / failure borne by licensee</p>
Running Royalties	<p>Allows participation in blockbuster success</p> <p>Nothing if Licensee stalls</p>	<p>No / low cost until cash flow turns positive</p> <p>Economic changes</p>
R & D Funding	<p>Meets organizational goals (interests)</p> <p>Supports licensed and other technology</p> <p>Develops relationships</p>	<p>Develops relationships</p> <p>Provides access to future technologies</p>
Equity	<p>Opportunity to participate in future success</p> <p>Develops relationships</p>	<p>Non-cash outlays</p> <p>Develops relationships</p>

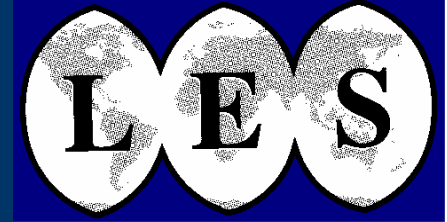
Structuring Agreements



**Risk
Borne**

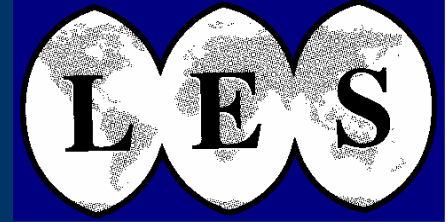


VALUATION



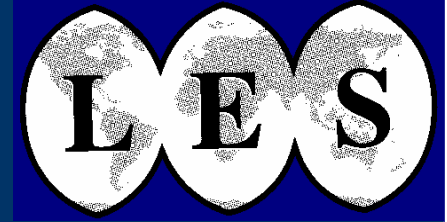
- Several methods
- No method is optimum
- Use at least 2 methods
- Do a reality check
- Only a tool

Valuation: Basic Approaches



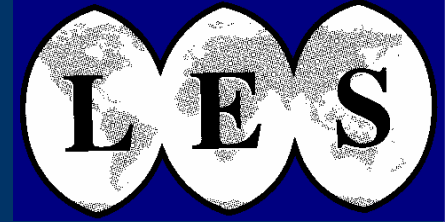
- Market Approach
- Cost Approach
- Income Approach

Market Approach



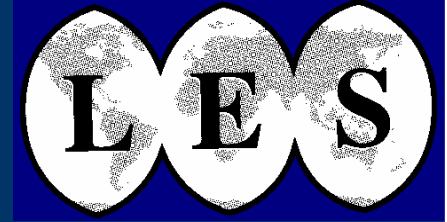
- Based on economic principle of supply and demand
- Valued by reference to similar transactions

Market Approach Example



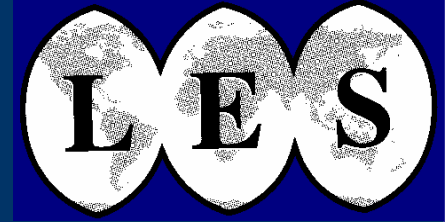
Agreement	Upfront Fee	Royalty Rate	Geography
A	\$ 25,000	5%	United States
B	\$ 50,000	4%	North America
C	\$ 0	6%	Global
X	\$	%	N. Am. & Europe

MARKET APPROACH



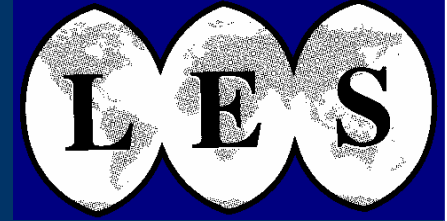
- Requires access to market pricing of deals
 - Identical actively traded technologies are ideal
 - Comparable is more common
 - Establish “ball park” value
 - Subjective and incomplete

Market Approach Steps



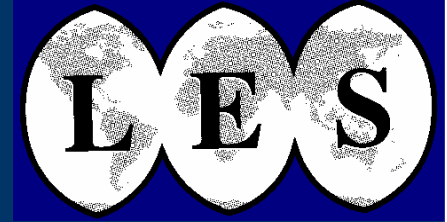
1. Determine similarity of technology
 - List key elements of deal
2. Compare several licenses
3. Estimate basic value

Cost Approach



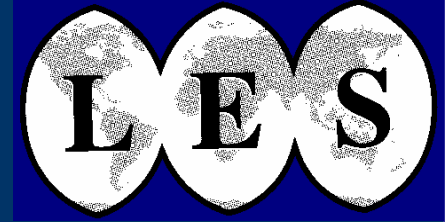
- When is it relevant?
 - Based on principle of economic substitution
 - When seller's costs of development are a proxy for design-around costs

Reasons for the Cost Approach



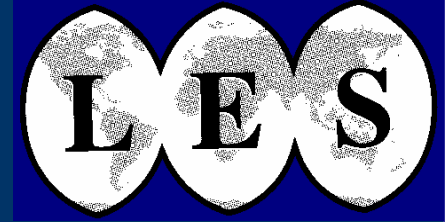
- Avoid development mistakes made by others
- Works best when:
 - R&D costs can be identified
 - No end products or markets can be identified

Cost Approach Issues



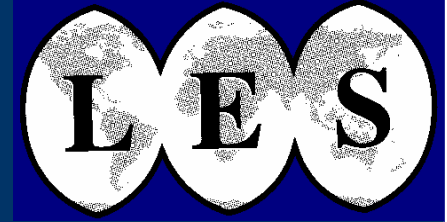
- Relevant buyer's costs:
 - Time
 - Personnel
 - Delayed market entry
 - Intellectual property protection

Income Approach Basics



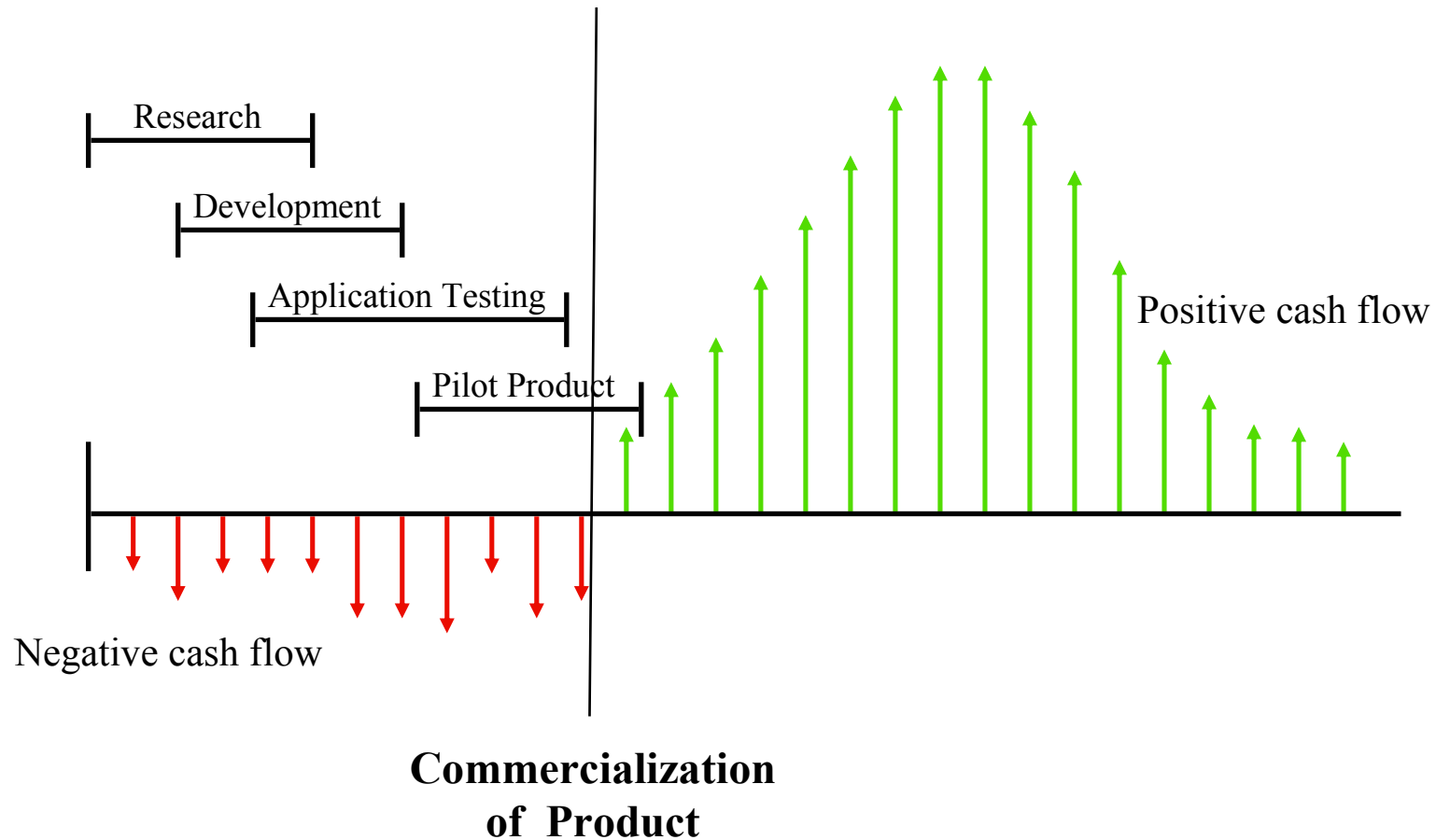
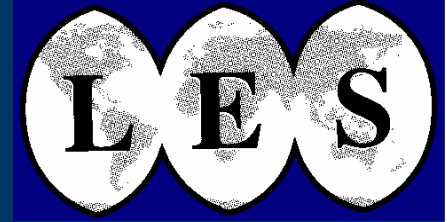
- Based on principle of anticipation of future cash flow
- Future income stream converted to present net worth

INCOME APPROACH

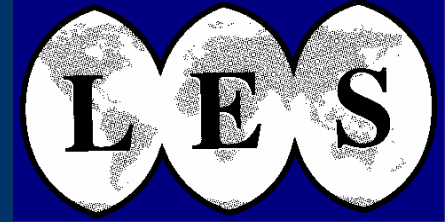


- **AMOUNT:**
 - Excess income, Lost income, Relief from royalty, Taxation
- **PERIOD:**
 - Statutory or legal, Functional or technical, Economic
- **RISK:**
 - Prevailing rates, Liquidity factor, Business risk premium

Cash Flow of a Project Technology Life Cycle

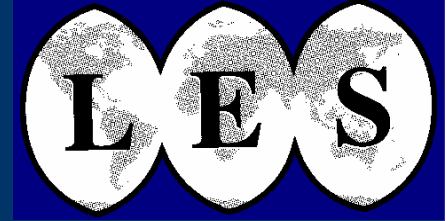


Income Approach Steps



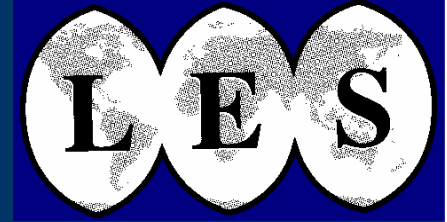
1. Evaluate competitive advantage of technology
2. Estimate investment over time
3. Estimate future profits over time
4. Discount future cash flows to present

Discount Rate



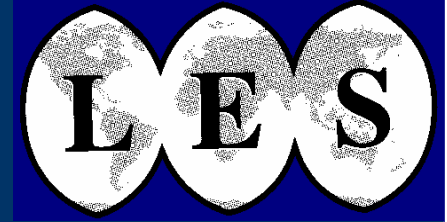
- Discount rate applied based on degree of risk (from risk-free to extremely high)
 - Company
 - Market
 - Technology
- Sources of information
 - Early Stage Technologies [2nd ed.] by Richard Razgaitis
 - OTHER??

25% RULE



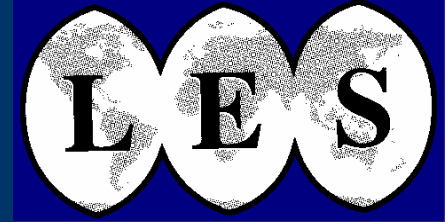
- Principle:
 - 25% of earnings generated by technology
- Disadvantages:
 - Empiric
 - No theoretical base
- Test:
 - Close to reality
 - Ball park

Valuation: Due Diligence



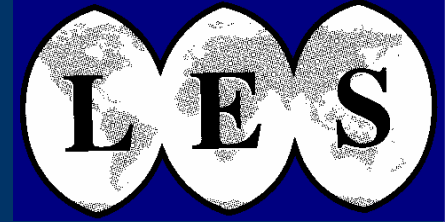
- Use appropriate approach
 - Market Approach
 - Cost Approach
 - Income Approach
- Consider risk assessment
- Technology contribution

Advanced Valuation Methods



- Monte Carlo Analyses
- Option Pricing

COMPARISON OF VALUATION METHODS



Cost

Easy to determine
Irrelevant in most cases
Maximum- minimum

Market

Need for comparables
Extrapolation
No consideration of
relative risks
Preferred by legal entities

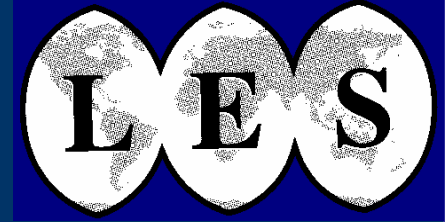
25% Rule

Simple
Inaccurate
Quick

NPV

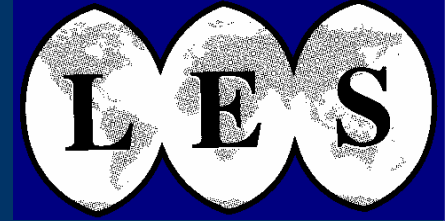
Time consuming
Complicated
Most accurate

Software Topics



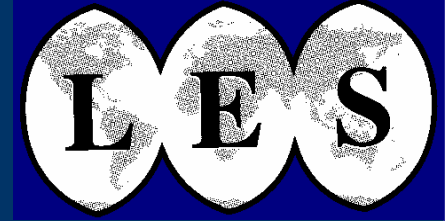
- Background to Software Valuation
- Software Valuation Process
- Software Valuation Techniques
- Software Quality – Commercial Ability
- Software & Patent Valuation Sandbox
- Software Components of a Licensing Deal

Software - Why Value?



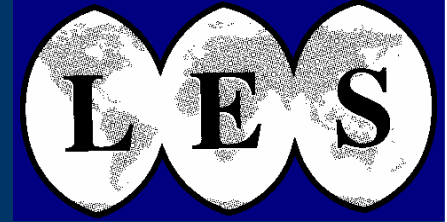
- It is required for various transactions (USA FASB 141/142)
- Business decision making
- Equity financing
- Bankruptcy
- Purchase Price Allocation
- Redevelop the patent or acquire content

Software - Values?



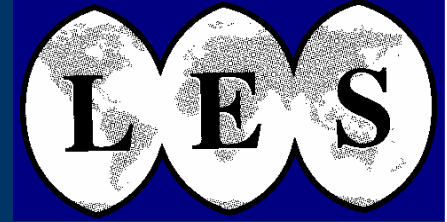
- Value standards include:
 - fair value,
 - fair market value,
 - investment value,
 - liquidation value,
 - and forced liquidation value

Understanding Software Know the Software Value



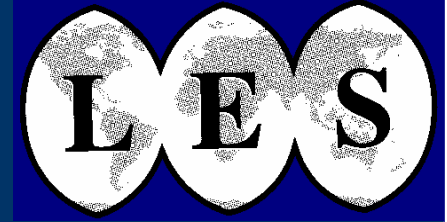
- Software Product
- Software Component of H/W
- Software Patent Value
- Internal Software
- For all – Know the IP Bundles and
- Know the acquisition context

Product - Bundle of Intangible Assets



- From a valuation perspective, Software intangible assets are best viewed as an integrated bundle – Product/Situation
 - Easier to Understand
 - Complementary
 - Commercialization or making \$
 - Patent, Copyright, Software Inventory

Software – IP Bundles



1) Trademark(s)

- Marketing & Trade Dress

2) Patent(s)

- Defensive & Offensive

3) Copyright(s)

- Executable Code
- User Documentation
- Installation instructions

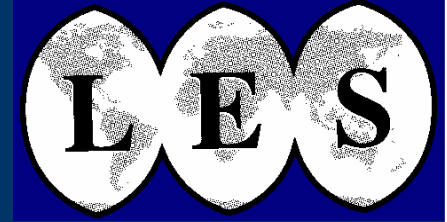
4) Domain Name(s)

5) Licenses & Encumbrances

6) Trade Secrets & Know How

- Design documentation
- Source code
- Formulas
- Processes & Know how
- Operating Platforms
- Manufacturing Instructions
- Configuration data
- QA test and procedures
- 3rd party technology
- Test data
- Test Specifications
- SAAS or ASP databases
- Client databases

Intangible Asset Inventory



1) Marketing and Sales

- Marketing plans & collateral

2) Client Support Systems

- Installation & Training
- User documentation and help
- Client databases

3) QA and Testing

- Bug Fix System
- Testing code and data

4) Manufacturing System

- Specific build guides

5) License Management

- DRM & License control
- Back office system

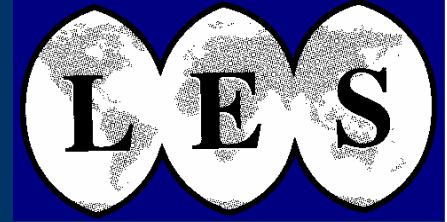
6) R&D Systems

- Internal Design documentation
- Source code with comments
- Source code control & builds
- ASP databases
- 3rd Party Software
- Open Source & strategy
-

7) Commercialization Strategy

- Product plan and updates
- New product plan releases

Software Product – Gordon Smith



$$\text{FMV} = \text{CRN} - \text{PD} - \text{FO} - \text{EO}$$

where:

FMV = Fair Market Value

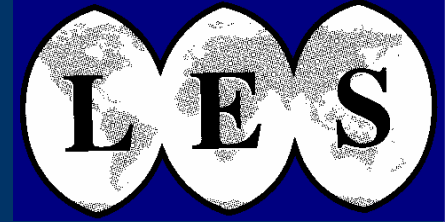
CRN = Cost of Replacement New, which is also alternately expressed as COR
(Cost of Replacement)

PD = Physical Depreciation

FO = Functional Obsolescence

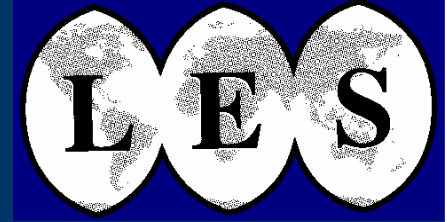
EO = Economic Obsolescence

Product Factors to Consider Quality



- FASB 86
 - Technical Feasibility
 - Market Feasibility
 - Revenue Feasibility
 - Ownership Feasibility

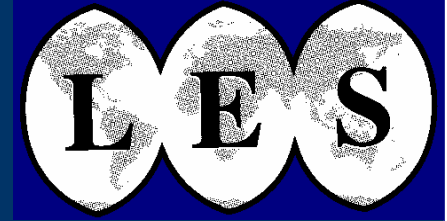
Software Product Valuations



$$\text{TSV} = (\text{OV} * \text{Quality}) + \text{MV} + \text{ICS}$$

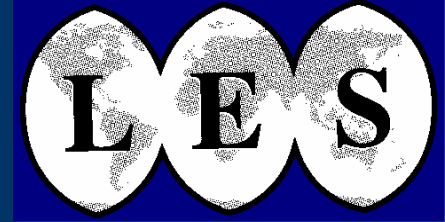
- **OV = Software Inventory value**
- **Quality = Influencing factors**
- **MV = market value**
- **ICS = internal cost savings**

Software Situations



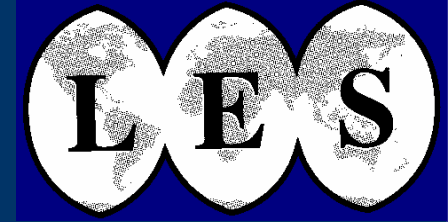
- The valuation of computer software in any situation is directly proportional to the number of IA asset components that were registered, valued, and verified in an SCE archive.
- Remember, source code is only one of the seven components!

Royalty Rate Calculations



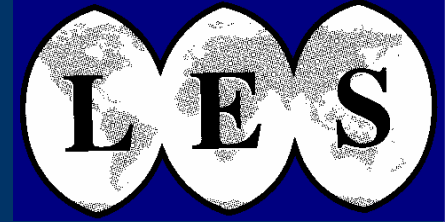
	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Revenue	\$	\$	\$	\$	\$
Royalty Rate (%)	4	4	4	4	4
Royalty Income	\$	\$	\$	\$	\$
After Tax Royalty Income (1-0.38)	0.62\$	0.62\$	0.62\$	0.62\$	0.62\$
NPV Factor	$1/(1+k)^1$	$1/(1+k)^2$	$1/(1+k)^3$	$1/(1+k)^4$	$1/(1+k)^5$
NPV (15%) $1/(1+k)^t$	\$				

Cash Flow Analysis



	Year 1	Year 2	Year 3	Year 4	TOTAL
Revenue	\$ -	\$ 1,000	\$ 3,000	\$ 1,000	\$ 5,000
Profit Rate	-	10%	20%	40%	22%
Pre-tax Profits	\$ -	\$ 100	\$ 600	\$ 400	\$ 1,100
After-tax Profits (1-0.38)	\$ -	\$ 62	\$ 372	\$ 248	\$ 682
After-tax Investment	\$ (300)	\$ (50)	\$ -	\$ 50	\$ (300)
Net Cash Flow	\$ (300)	\$ 12	\$ 372	\$ 298	\$ 382
NPV Factor (15%) $1/(1+K)^1$	0.87	0.76	0.66	0.57	
NPV	\$ (261)	\$ 9	\$ 246	\$ 170	\$ 164

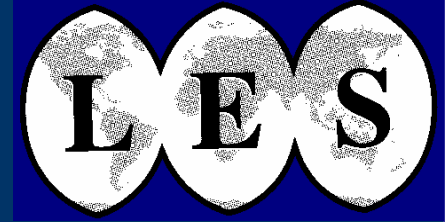
What can you afford to pay?



Total Sales	\$ 5,000	
NPV Sales	\$ 3,310	
After-tax NPV Profits	\$ 164	
After-tax Implied Maximum Royalty		5%
(\$164/\$3310)		
Royalty Tax Shield	0.62	(1-0.38)
Pre-tax Maximum Royalty	8%	(5%/0.62)

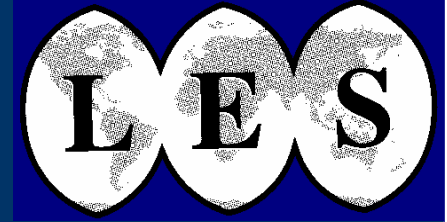
Need to negotiate a split of the 8%.

Evaluation of Competitive Advantage



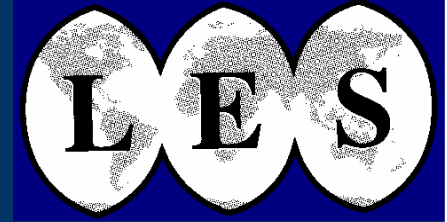
- How much does technology contribute to overall project profitability?
- Technology factor analysis
- Relief from royalty analysis

Relief From Royalty



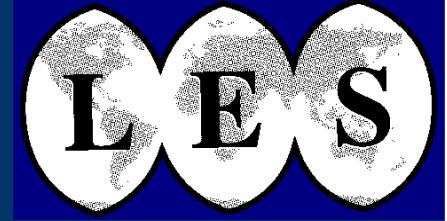
- Value of intangible assets =
 - capitalized value of after tax royalties a company is “relieved” from paying

Extracting Value



- Determine negotiation sticking points
 - Valuation coming to specific figure
 - Fixed Fees
 - Variable Payments
- Utilize variable payments to minimize assumption risks

Valuation Summary



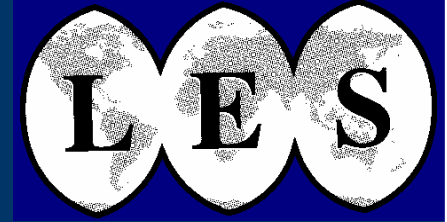
- One part of negotiation
- Begins negotiation process
- Win-win



Negociación de Licencias / Negotiation: Background and Elements

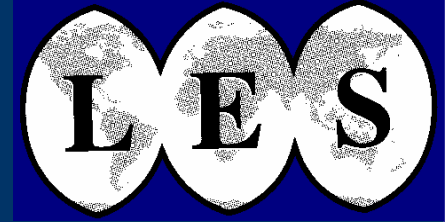
Managing Licensing Risks

So what is licensing?



- Licensing in layman's terms is an arrangement between two or more parties in terms of which one party grants certain rights inherent to its technology or intellectual property (patents, trade marks, confidential know-how, or the like) to the other party/s in return for some form of remuneration.
- Franchising is a specialised type of licensing.

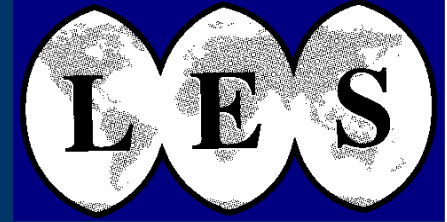
Why License?



- Most common method of commercialisation of technology and intellectual property, worldwide.
- Many organisations only want to create IP – by whom and how will it be commercialised?
- Other organisations don't have R&D capabilities but are strongly positioned as sales channels.
- Licence-in a 'cost-effective' means of obtaining the desired technology.
- Licence-out a useful means of recovering some R&D expenses
- Final product may be years away; licensing can provide income throughout the R&D process, before final product.

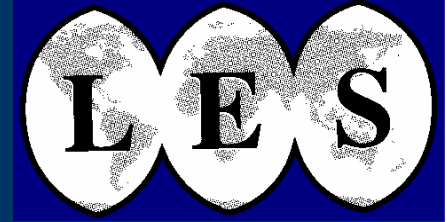
See also: Bills, Katrina "A guide to licensing biotechnology", Volume XXXVIV No.2 June 2004, les Nouvelles and Kneller, Robert "Tips for biotechnology in-licensing", Volume XXXVIV No.2 June 2004, les Nouvelles

Licence agreement



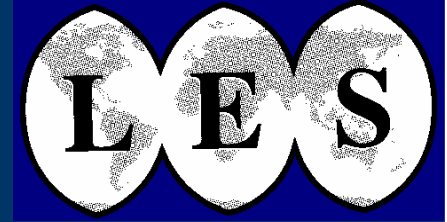
- Define relationship between Licensee(s) & Licensor;
- Scope of the relationship;
- Extent of the rights to be licensed;
- Remuneration details (royalties/fees);
- Manner in which the relationship will be maintained, and
- Address the deliverables

Negotiations



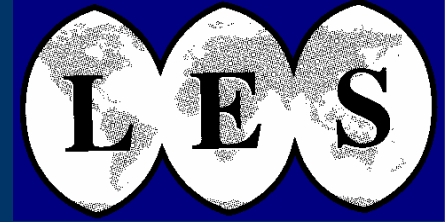
- Suitably cover the following:
 - Address all parties aspirations (win-win);
 - Enforceability of IPRs;
 - Exclusivity;
 - Legal and regulatory aspects such as Competition Law, tax implications, etc;
 - Remuneration model (use of financial and non-financial models);
 - Management of risks; and
 - Maintenance of the licensing relationship.

Basics of Negotiation

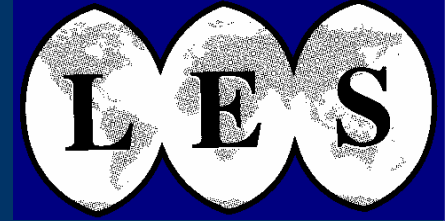


- What a licensee stands to gain
 - Use of licensor's confidential information
 - Patent immunity
 - Authorization to use trade marks
 - Authorization to make reproductions, etc
 - Access to futures at a reasonable rate
 - Possible access to critical components

Negotiation Elements

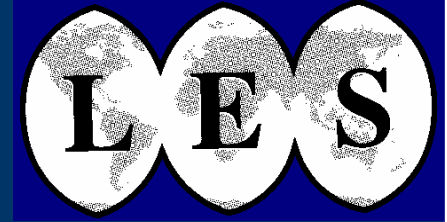


- The whole package
 - IP License fees
 - Initial and royalty rates over time
 - Fees for design and start-up services
 - Supply of proprietary equipment
 - Supply of essential ingredients
 - Deliverables and fees



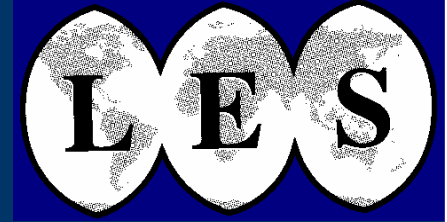
The balancing act

Consumer's freedom of choice
versus
Innovator's reward



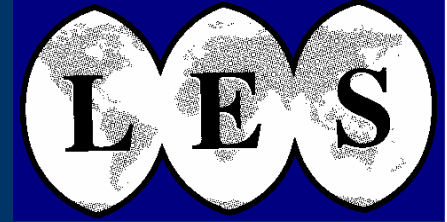
- Some no-no's
 - Imposing obligation on licensee to purchase unpatented goods or services from licensor
 - Prohibition against licensee challenging validity of licensed patents
 - Prolonging obligation to pay IP license fees beyond expiry of patent
 - Limitations on sale of licensed product
 - Restricting licensee's choice on determining selling prices
 - Restricting licensee's choice of potential customers
 - Compelling licensee to assign rights to improvements to licensor

Rights to improvements



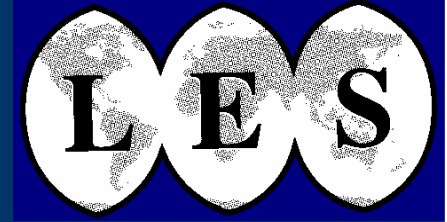
- **General rule**
 - Rights to improvements vest in the originator
 - But, Employees usually assign their rights to their employer
- **Using and granting back licensee's improvements**
 - Licensor usually says
 - You are free to use your own improvements, as long as you observe your secrecy or contract obligations
 - Licensee usually says
 - I allow you to use and sub-license my improvements, as long as I get access to yours too

Third party patent infringement



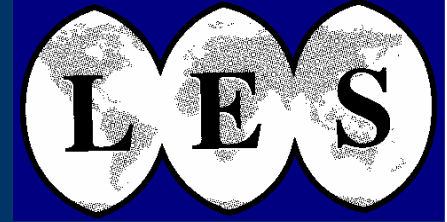
- The licensor says
 - “I cannot give you what I do not have”
- The licensee says
 - “You said you are the technology leader”
 - “I spent a lot of more money on this plant than I did on your license fee”
 - “I cannot use this plant for anything else”

Relationship building



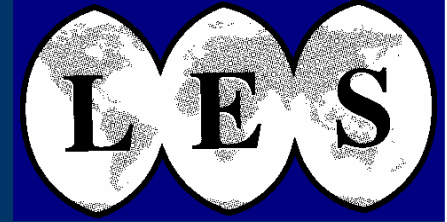
- Foster multi-level buy-in
- Communication channels
- Regular meetings
- Handle problems sensitively

Negotiation strategy



- Should complement the business
- Aligned with and supportive of the business vision
- Very important with consumer directed technology



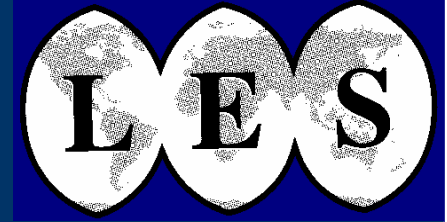


- Some general guidelines
 - Place risk with the party that is most capable of managing it
 - Do not assume greater liability than the value of deal



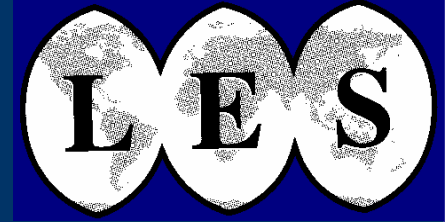
You don't get what you deserve,
You get what you negotiate

Principles



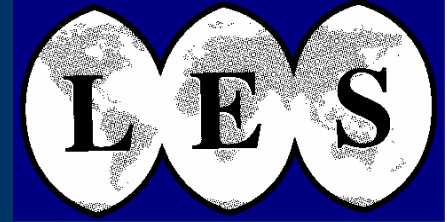
- Understand Technology
- Sensitivity for IP and IA
- Benefits
- Licensor & Licensee
 - Price And Valuation
 - Wants Versus Needs

Planning



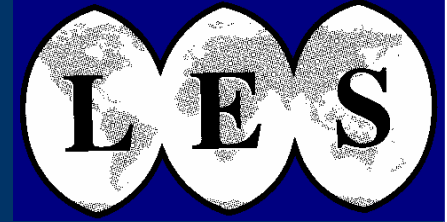
- Objectives
- Alternatives
- Teams

Basics



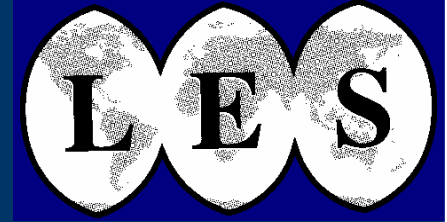
- Focus on the problem
- Focus on interests
- Develop multiple options
- Wants & needs
- Trade offs & compromises

Teams



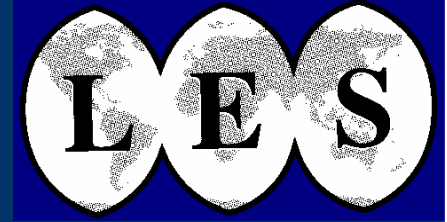
- Preparation team
- Core negotiation team
- Support team for negotiations
- Implementation team
- Team Members:
 - Functional and negotiation role
 - Discipline
 - Leadership

Negotiation Team Roles



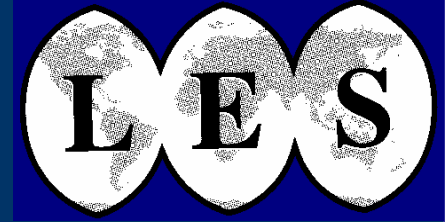
- Leader
- Secretary
- Observer
- Chief negotiator
- Support

Team Preparation



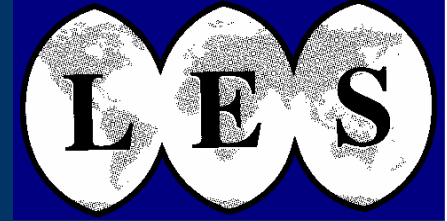
- Role playing
- Familiarity with issues
- Tactical issues
- Operational items

Strategies & Tactics



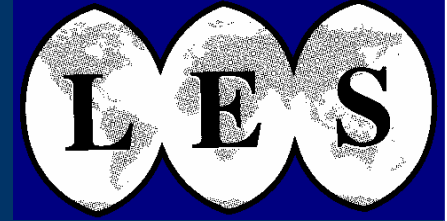
- Know the people
- Strategy & tactics
- Transactions vs. relationships
- Win-Win => good relationships

Organization



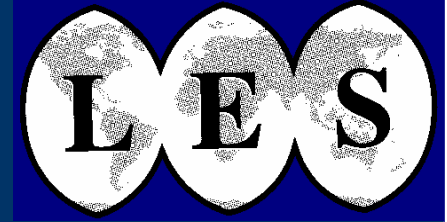
- Physical arrangements
- Length of meetings
- Frequency of meetings
- Duration of negotiation process
- Informal meetings

Getting started



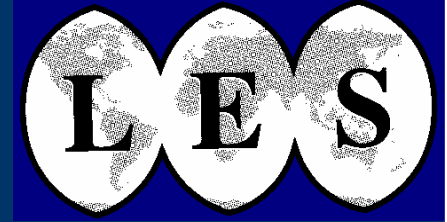
- First call
- Meetings
- Personnel
- Relationships

Techniques



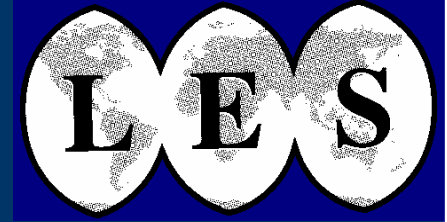
- Structure the negotiations
- Defer difficult issues
- Take up general positions before specific
- Use committees and support groups
- Keep score of concessions – two way street argument
- For difficult issues – ‘peel the onion’
- Time outs and silences
- Styles

Negotiating Tactics



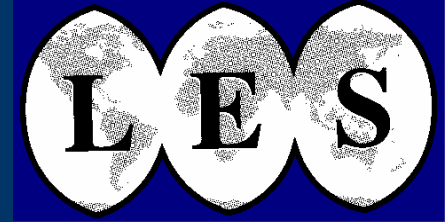
- Create ‘good guy’, ‘bad guy’
- Divide and conquer!
- ‘Trial balloon’; ‘straw man’, ‘what ifs’.
- Threatening a walk-out, ultimatums
- Beware of ‘standard terms’, ‘standard contract’, ‘government rules’
- Set the precedent!

Intercultural Negotiations



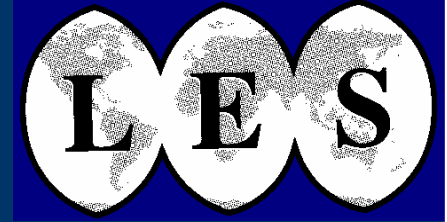
- Nationality
- Culture
- Race and gender
- Language
- Corporate culture

General Issues



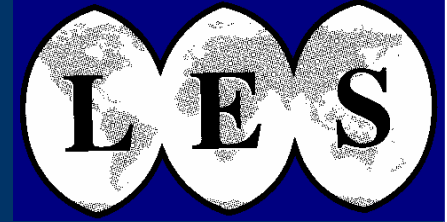
- Preparation
- Cultural and historical awareness
- Value of time
- Hierarchy
- Taboos

Translator



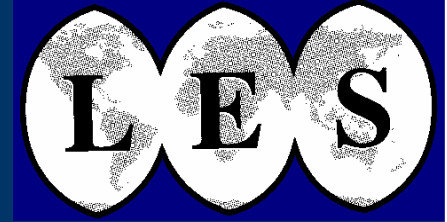
- Own or hired
- Role and responsibilities
- Take small bites
- Beware of 'secret knowledge'
- Replay

Considerations



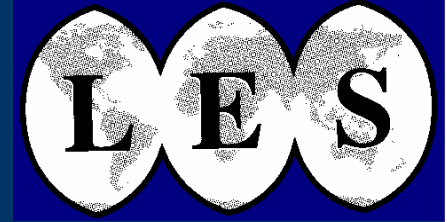
- Business
- Financial
- Trade-Offs

Deal Memo (Term Sheet)



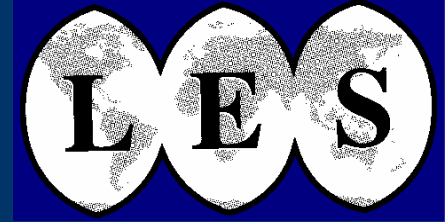
- License terms
 - Product Definition
 - Royalty Base
 - Royalty Rate
- Sublicense
- Field restrictions
- Reserved rights
- Payments

Deal Memo (Term Sheet)



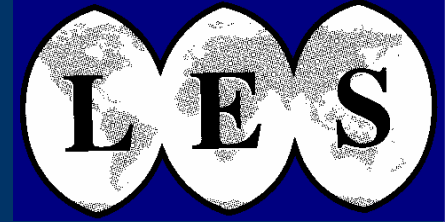
- Diligence terms
- Confidentiality
- Warranty
- Indemnification
- Improvements
- “Subject To Contract”

Closing the Deal



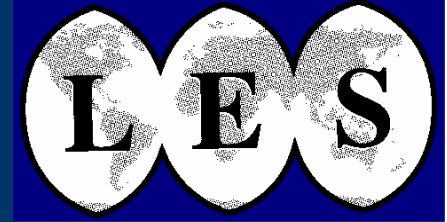
- Review terms
- Communication
- Focus & plan
- Reporting & record keeping

Positive Negotiation Outcome



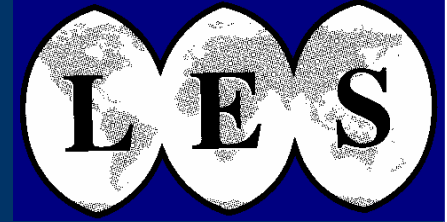
- Everyone wins
- Beginning a relationship
- Sign agreement

Negative Negotiation Outcome



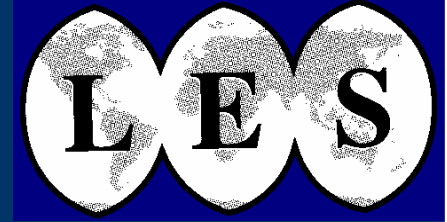
- Timing delays
- Team changes
- New potential partner appears
- Internal strategic changes
- Walk Away

Transaction Ethics



- Relatively absolute, or absolutely relative
- Influenced by:
 - Profession (investment banker, lawyer, executive, licensing manager, scientist, professor)
 - Reward system
 - Culture
 - Personal values
 - Industry
 - Organization
 - Relationships

Summary



- Creative problem resolution
- Do your homework
- Be fair