



# ip4inno Module 4A new version

#### IP COMMERCIALISATION

Commercialization and Economical Exploitation of I.P. Assets – An overview

Eli Guastalla - Meta Group Srl

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#### The Disclaimer!

This training material concerns intellectual property and business strategies only in *general terms*.

This training material should not be relied upon when taking specific business or legal decisions. Rather, professional advice should be obtained which suits the circumstances in question.





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- European Commission, DG Enterprise & Industry
- European Patent Office
- 19 consortium partners in the first ip4inno project

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with funding from the EC and EPO





# By the end of this session you are expected to know more about I.P.

- 1. Understanding I.P. basics
- 2. Strategic vision of I.P.
- 3. I.P. assets in Technology Transactions
- 4. Valorization & Value of I.P.
- 5. Value Definition and Calculation methods Applied
- 6. About Licensing and contractual issues
- 7. Who can do the job?





# **Understanding I.P. Basics**





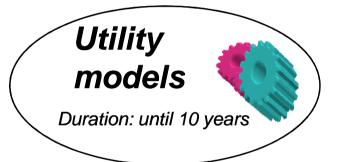
# Registered intellectual property

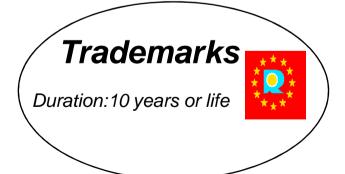
IP rights with a certificate

#### **Patents**

Duration: up to 20 Y exep- pharma













# **Unregistered I.P.**

Require no formal application procedure, but come into existence automatically when certain types of intellectual property are created, most common are:

- Copyright
- DATABASE Right
- Confidential information and trade secrets
- Industrial secrets
- Unregistered Design Right
- Unregistered Trade Marks





## **Soft I.P. - 1**

#### Other protectable /defendable forms of I.P. are:

<u>Design</u> (important for household & furniture etc)

Know How, database, trade & industrial secrets (Coke), testing & industrial implementation (restrictive covenants') Industrial experience, confidentiality agreements, R&D information,

GI – geographical indication of Origin (mainly food)





## Other soft I.P. - 2

Copyright (focus for writers, publishers, film maker, Collective licensing society, and software firms)

<u>Unregistered trade marks</u> – important for short lifecycles products like textile & fashion design with short time to market, printed circuits topography





### Some definitions of Patent:

#### You can say a patent is:

An agreement between the inventor and society

#### **Alternative definition (legal):**

A patent is an **exclusive right** to commercially exploit the invention in a given country. Protection up to 20 years.

BUT ALSO .....

#### **Prohibitive right**

A patent <u>forbids</u> others <u>commercially to</u>: produce, sell, work, use, import and possess the invention





# What is patentable

Patentability applies to, **inventions** (technical teaching with technical effect) that can be **industrialised** (not necessarily with an economical advantage), that are **new** and essentially differ from current state of the art.

You **can** patent: products, production processes &/ or their use.



### **All Exclusions**

You **can't** patent, among the rest: discoveries, business and math methods, SW, health treatment,

**Neither** can you patent objects or inventions which are either illegal or contrary to moral standard and public order (torture or killing methods)





# **Utility Model**

(Some countries, typically UK, DK, S, N, doesn't recognises it)

The "Patent-system" for smaller inventions

#### Conditions:

- Solve a technical problem
- New
- Inventive step

Often used for "small" inventions for limited time





# The Utility Model - 2

#### A utility model is:

- an exclusive right only for 6 to 10 years
- allows the right holder to prevent others from exploiting economically the protected invention
- may also be negotiated
- within 12 months a national utility model application can be turned into a European patent application, if it fits to the European requirements
- protects mainly product (methods can be files in F, P, IR)
- procedure are simpler and fees cheaper





# Trade Marks - short definition (1):

- A distinctive sign which identifies the goods and services of one company from those of another
- A trade mark helps consumers to identify and choose between products/services based on their reputation and quality
- A trade mark is a word (alphanumeric) or sign /logo or both, which can be represented graphically and which is capable of distinguishing the trade origin of certain goods and services





# **Types of Trade marks (2)**

Trade marks can be a word, a logo, a combination of both, but also a form or a sound (i.e. jingles like Win Xp)













# Requirements for a good Trade Mark (3)

A good Trade mark, to get registration, must be:

- Distinctive (Unique): "Nutella" "Swatch"
- Not descriptive: "pure Olive Oil" "waterproof cloth"
- Not Similar or Identical to others or deceptive: "for You / 4U"

Strong trade mark



Weak Trade Mark **B P** www.ip4inno.eu











# **Exercise:**

Identify different forms of I.P. in these products & their content.

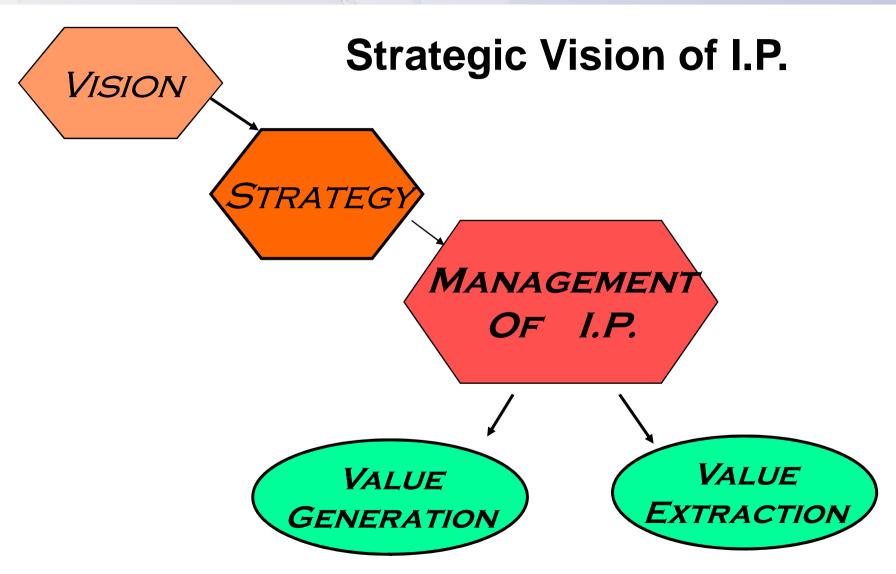




# Strategic Vision of I.P.



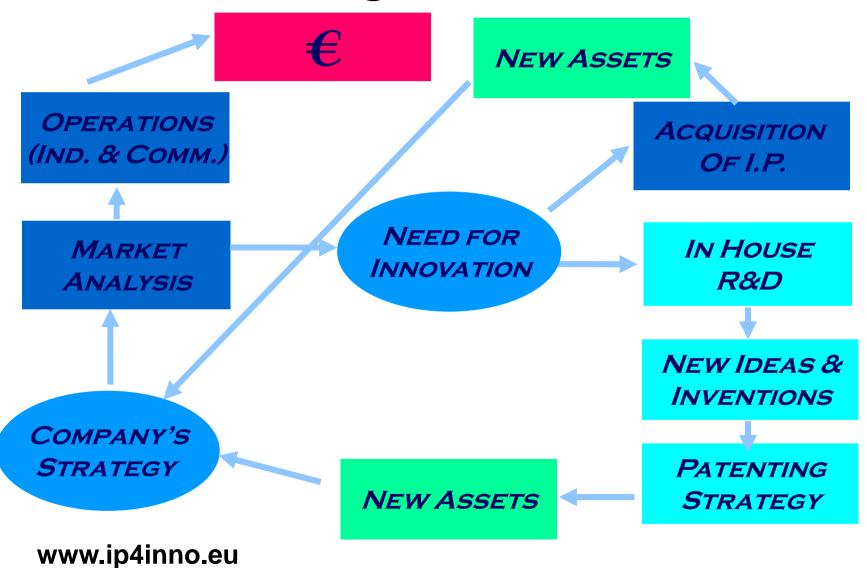








# **Strategic Innovation**







# Strategic role and scope of Intangible Assets protection

STATIC APPROACH to I.P. Often, though not always,

I.P. System is used to oppose counterfeiters

**DYNAMIC APPROACH -** *A more creative use:* Convert I.P to an entrepreneurial tool for the benefit of all parties

**MAPPING:** Intended as Territorial Extension of I.P. for their present and future use Both directly and indirectly (licensing and/or sale)

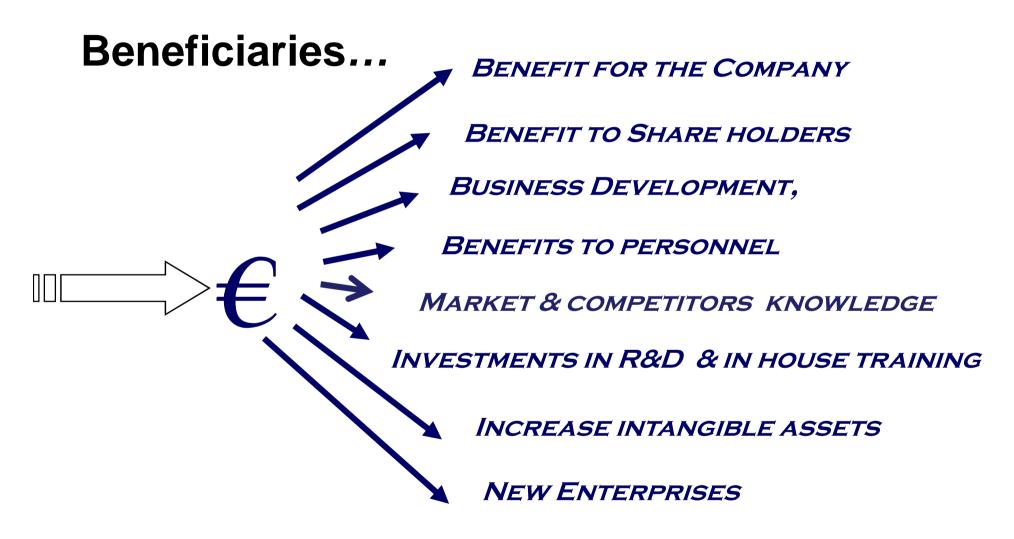




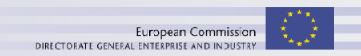
# IP - an effective Entrepreneurial tool -1

- I.P. can be developed to generate cash flow benefit, to support the company's image, to prepare new ventures (alone or with partners), to approach new markets, new territories, new lines of products.
- Typically R&D institutions, have, as their mission, the development and sale/license of their I.P. portfolio.
- Skill of R&D unit and ability to sell its outcome define the success.









# IP - an effective Entrepreneurial tool -2

In case I.P. do not fall in firm's strategy they can be:

- Licensed under semi or non exclusive terms in order to:
- License to generate € in different market
- Licensed of co-distribution if we are weak in sales
- Licensed in territories where we are not operating (yet)
- Licensed for "doors opening" scope (market scouting)
- Licensed in a market we want to softly penetrate
- Licensed for excess production capacity





# IP - an effective Entrepreneurial tool -3

Not only Technical / industrial patents can be licensed but also other I.P. like Trade Marks or Technical Know How can be licensed to generate revenues in other market segments thus supporting the TM without direct presence





### Some more ...

- I.P. Provide often a premium price on the market
- Attract investors
- Balance business relation with large firms
- May constitute a securing tool for funding
- Contribute to increase market image
- Negotiable and in some cases "cash producer"
- Facilitate some business models (find franchisee)





## Valorization and Valuation of I.P.

Filing and having granted an I.P. is not a goal, just a tool

- I.P. valorization to obtain the best during life time of goods and possibly prolong it
- Look for "push" effect on all firm's activities
- Enter into agreements and new initiatives (start ups)
- Valuate to maximize company's value for Market reason & benefit of share-holders



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# Why and for whom is it important to have an I.P. strategic vision

Considering previous slides it derives that:

- I.P. Affect ALL company's departments
- I.P. Driven company requires specific attention and sensitivity by all members
- Efficient, sustainable and effective I.P. policy provides benefits to all involved business & social parties.





# I.P. ASSETS IN TECHNOLOGY TRANSACTIONS

I.P.'s are both the object of our transaction and the main multiform tool available





# **IP Creates Value in Many Ways**

#### **Exclusivity Value**

- •Price Premium
- •Reduced Manufacturing Cost
  - •Increased Market Share
  - •Enhanced Customer Satisfaction
    - •Blocking Value

#### **Option Value**

Technology and protection may provide avenue for future investments

#### **Defensive** Value/Freedom to Operate

- •Creates IP portfolio to discourage lawsuits
- •Provides ability to compete

#### Trading Value

Value in trade for crosslicensing, licensing-out, or sales





# **CORPORATE INTANGIBLE ASSETS -1**

#### **HUMAN RESOURCES**

Knowledge

Education

Experience

Skills

**Innovation Ability** 

#### **INTANGIBLES**

**Inventions** 

Methodologies

I.P.





#### **HUMAN RESOURCES - 2**

**KNOWLEDGE:** { To know with familiarity . Awareness.

**EDUCATION:** Learning, Erudition

**EXPERIENCE:** Practical Knowledge

SKILL: Development of Aptitude

**INNOVATION ABILITY:** Talent to invent





#### **CORPORATE INTANGIBLE ASSETS 3**

I.P.

Patents
Trademarks
Copyright
Know How

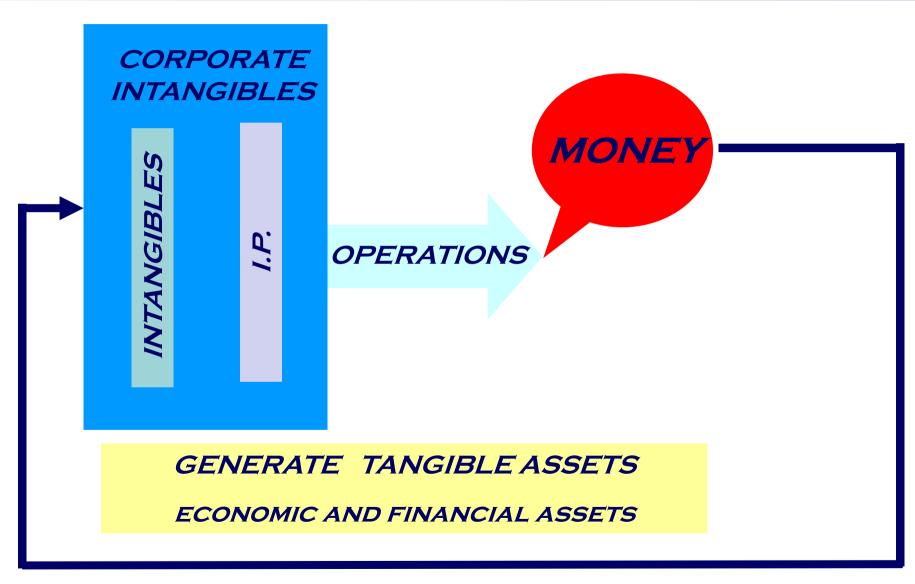
... intangible assets

**Inventions** 

Methodologies

**Processes & Documents** 







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#### **Value**

**Value =** The monetary worth of something

Numerical quantity assigned or determined by

calculation or measurement

Value = A fair return or equivalent in goods, services or money for something exchanged





### Why & What do we Evaluate

Why: Because I.P. are significant element of market competition and superiority

What: Patents and utility models

- Trade Marks and design
- Copyright
- •KH & other unregistered I.P.





#### more .... IP Valuation

#### When Valuing Intangible Assets?

- Sale or license of patents (and related Know-How)
- Bank loan or financing secured by intangible assets
- Mergers and acquisitions
- Joint-venture creation and company's valuation
- Increase Share Capital in capital contribution
- Reward researchers
- Manage IP portfolio
- Bankruptcy and Court cases (reward creditors)





# Some consideration regarding the goods and I.P. we are looking at - 1

While we are eager to innovate (or make money) using sometime the shortcut of buying / selling technologies or other I.P. We must consider few things:

1.The Technology 4.The Market

2.The Patent 5.The type of firms involved

3. The Products 6. General risks & benefits

7. Buyer / seller ability & structure to support the process





# 1.1 The Technology Characteristics

- To what degree is the technology developed
- Is Buyers infrastructure & Equipment related to the new technical needs
- Are we dealing with a break through Technology or not? Is KH needed?
- Is the personnel ready to accept NIH technology?





# 1.1 Type of Technology and Know how (continued)

- Is the patent innovative or an improvement?
- Product or process?
- What KH is needed to implement the patent?
- To what extend is the KH innovative?
- R&D costs involved (past) and future?
- Benefit of new product /tech. Vs. competitors?
- Production costs?
- Target market?



#### 1.2 The Patent

- Other I.P. involved? (are there TM involved?
- Expiration date of I.P.'s
- Are the I.P.'s already granted? In Which Territory?
- Are the I.P.'s independent or not?



#### 1.3 The Product

- Does the product fits to our offering?
- Is our personnel able to support it?
- Do we have a reputation for it?
- To what extend the new products affect our firm?





#### 1.4 The Market

- Is the company familiar with the new market?
- Does the firm knows the market (competitors, rules etc)?
- Does the firm have to build up a new image/brand?
- Is the company able to face effectively the new situation? The personnel?





### 1.5 Type of firms involved

Exchanging or acquiring a license means a long cooperation between licensor and licensee during the "transition" period are the companies able to communicate and cooperate adequately?





#### 1.6 & 1.7 Risks and benefits

All above mentioned points should lead to a thorough analysis to decide whether such a new venture is suitable to the potential licensee condition (SWOT).



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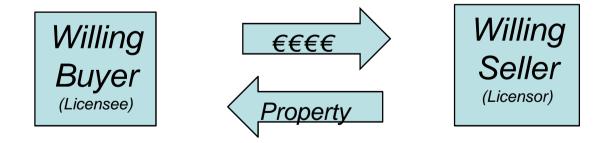
# Value Definition & calculation Methods Applied





#### Fair Value - What is It?

 The price that property changes hands between a willing buyer and a willing seller, neither being under any compulsion to buy or to sell, and both having reasonable knowledge of relevant facts





#### **IP Valuation Methods**

- Cost based methods (1)
  - Historic costs
  - Replication/replacement costs
- Market based methods: comparison with prices (2) achieved in similar IP transactions
- <u>Income based methods</u> (3<u>)</u>
  - Discounted Cash Flow (DCF)
  - Relief from Royalty method





# 1- Cost Based Approach

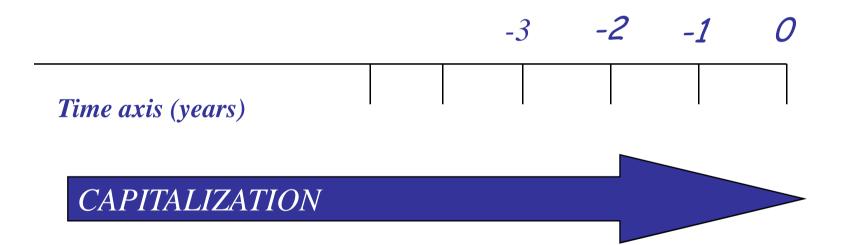
- Value of IP = Fair market value of total cost incurred to develop or to replace or re-create similar IP to those that may already exist
- Licensor wants at least as much they have spent
- Licensee will pay no more for the IP than the cost of re-developing it
- Licensee avoids development effort and minimises risk





# **Cont... Cost based approach (Historic)**

Financial discount calculation scheme







#### Cont.....Cost Based Approach

#### When to use the cost approach:

- IP is at very early stage of development
- When IP is not sufficiently defined yet





### Cont.... Cost Based Approach

#### **Practical considerations:**

- Can all IP costs be avoided by licensee?
- Can you re-engineer the technology with, protected IP asset?
- Have IP development costs changed since licensor developed it?
- What is the cost of delayed –market entry?





# 2 - Market Based Approach

- This method is based on identifying and comparing similar transaction; reason why:
- Licensee/buyer is not willing to pay more than others have paid for similar IP
- Fair Value of Patent = Price paid in comparable, transactions





### Cont.... Market Based Approach

#### When to use market approach:

When you can find sufficient (similar) transaction data

#### **Comparison considerations:**

- IP type
- Industry
- Market size
- Forecast profitability
- Deal terms
- Similar counterparts





# 3- Income Based Approach

# Value is determined by considering <u>future</u> economic <u>income expected</u> from license (royalties)

Present Value of the expected future income

Three key parameters:

- Amount of the income stream
- Duration of the income stream
- Risk associated with the realization of the income





### **Cont.... Income Based Approach**

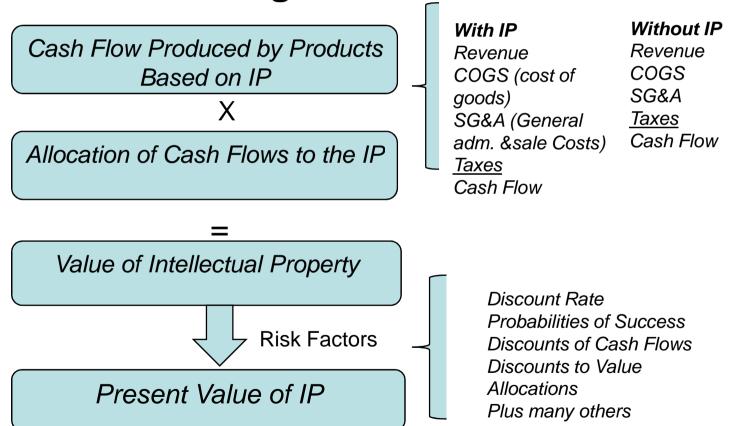
 How much can be earned from commercialization of the IP, and what is that in today's currency (NPV)?

Income approach is the most commonly used valuation approach (gold standard)





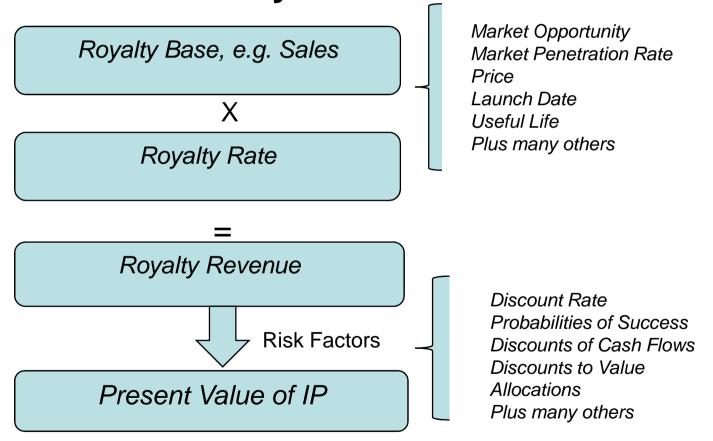
# **Example Income Approach Excess Earnings**







# **Example Income Based Approach Relief from Royalties**







#### **Overall Risk factors**

While evaluating / negotiating bare in mind that :

- Marketed I.P. risk obsolescence, they become less competitive and require more support (marketing /promotion / incremental R&D
- New I.P. means also Technological and market risk

Do consider therefore: financial, technical and market risk factors.





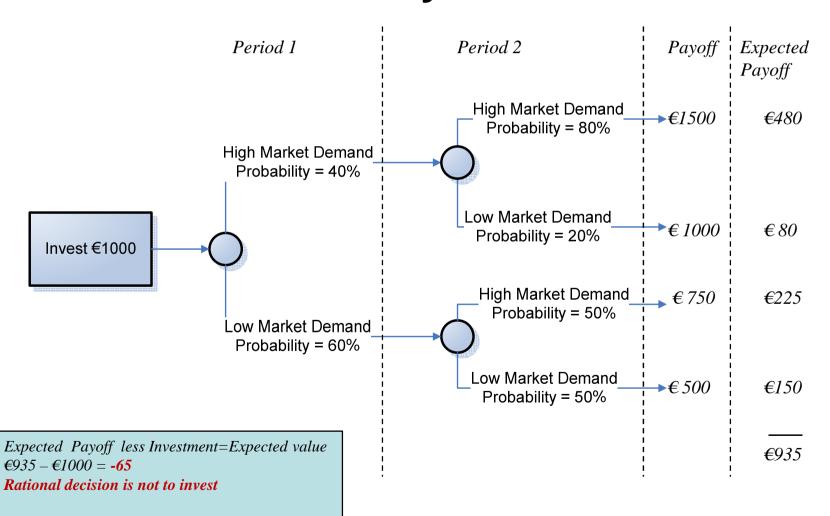
# **IP Option Value**

- Investments in patents and technology often provide value by creating the option to invest additional funds at a later time if the opportunity appears attractive
- The option value created through investments in patents and technology can be estimated using:
  - Decision tree analysis
  - Option pricing models





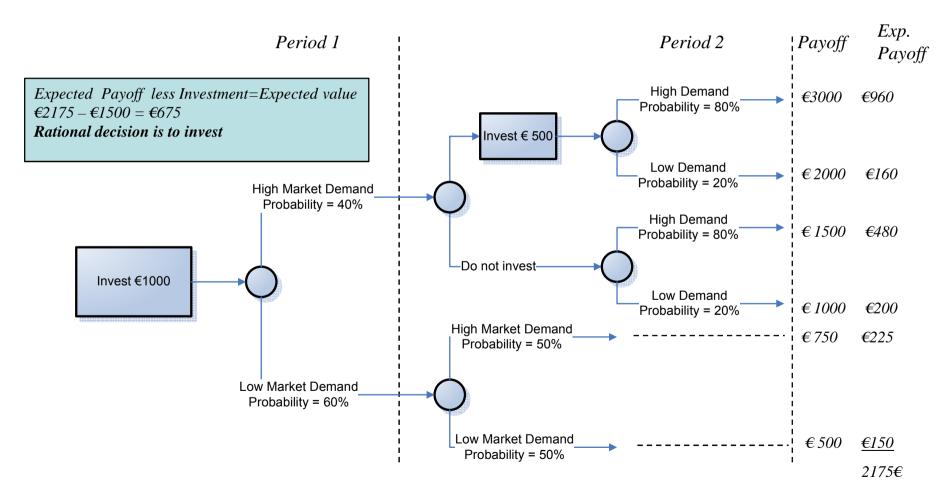
#### **Decision Tree Analysis**







### **Decision Tree with Option**





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# About Licensing and contractual issues





# Licensing, What for ??

- General profit (extraordinary revenues.& protection)
- Accessing Technology
- Enter into R&D cooperation
- Settle infringement cases
- Occupy (temporarily or not) non strategic markets
- Study and Prepare new market penetration (new territories / new areas of business)
- To stand in the way of a competitor (stop him to attack my market position or get down to agreement.





#### In a bit more detail



*IP owner* 

- 1. Payments
- 2. Performance Obligations
- 3. Indemnities

- 1. Permission to use IP
- 2. Warranties
- 3. Technical support?



Licensee





# **Licence Agreement - Typical Structure**

- Parties
- Recitals (preamble)
- Definitions and subject matter
- Operative Provisions
  - Grant & restrictions, payments, performance obligations, warranties, confidentiality, indemnities, improvements, Royalties report, infringements, Terms & termination, duration, minimum results for licensee ....
- Signatures
- Schedules





# Some types of license & license terms

- Type of license (sole, semi / non exclusive etc.)
- Territory and/or field of business granted
- Minimum royalties, sublicense right
- Changing royalties in lifetime of I.P. or Lump
- Sum for targets or Milestones achievements
- Is training and literature included?
- What else is licensed TM, other soft IP?





# Drafting and negotiating IP licence agreements

Main documents exchanged between the parties





### **Preliminary documents**

- Confidentiality agreement or Non Disclosure Agreement (NDA)
- Term sheet also called letter of intent, or Memorandum of Understanding (MOA)





### Warranties, obligations & Indemnities

Contract promises, eg typical warranties cover

- That the licensor owns de-jura the IP
- IP do not infringe third party IP and have no pending issues

Can you make the promise? Take the risk embedded?

- Is it something within your knowledge or control?
- Do you have insurance against the risk?

The Licensor shall indemnify and hold harmless the Licensee against claims and liability.





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## Classroom exercise and discussion (1/2)

Electro Ltd (start up firm with very poor finance) filed a patent regarding the technology that produces electricity from passing cars, that presses a certain surface at a given speed (low as 30-40 kmh).

The pressure generated activate a turbine which operates a generator and finally power is conveyed to the grid. The traffic intensity, to achieve economically valid result must be, at least, 20,000 cars per day per lane or equivalent (a lorry of 15 Ton = 10 -12 cars) under these condition of traffic.





## Classroom exercise and discussion (2/2)

The ROI (return on investment) is about 5 years as compared to 8 years in photovoltaic (the investment per lane, about 250-300K).

#### Please, consider:

the market analysis (competitors, regulatory, approach to market, identify clients, business models) and suggest a possible approach to negotiate the technology.





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# Who can do job?



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# I.P. Management, not an easy job, who can do it?

In Academia: dedicated TT office

In Companies: depends mainly on size, type of business (is it a regular activity?) is it a technology based firm?

OR Consultant & outsourced professional





# Outline the profile of a person suitable to be an I.P. Manager

For the last three hours or so we went through several subjects which deal with interdisciplinary issues now it is time to put in practice what we have discussed

#### **Exercise:**

Please list main characteristics you think such a person should have to make this job





#### Continue .....

# He / She Should, in my opinion, have knowledge and / or experience in:

- Understanding basic production processes
- Management and administration
- Economy and marketing
- General scientific and technical understanding
- Regulatory and legal affairs knowledge





### Moreover the IP manager should have :

- Basic IT knowledge and emerging technologies
- Sufficient knowledge of some 2-3 languages
- Communication skill, think positive
- Negotiation technique and ......
- Ability to mediate





..... And also

Some imagination, open and flexible mind.....
Creativity and intuition

**VERY PATIENT** 

Experienced in business

Well, it can't be a young inexperienced enthusiastic fellow ...... but not necessarily Leonardo da Vinci

..... GOOD LUCK





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### Thank you for your attention!

Any questions or comments from the audience?