Introduction to Intellectual Property Valuation

Peter Kaldos

Hungarian Patent Office
H – 1054 Budapest
Garibaldi u. 2

peter.kaldos@hpo.hu
Tel: +36 1 474 5814

Why value Intellectual Property?

The primary reason for valuing IP is to increase business value from the IP through optimum management decisions

IP valuations are conducted by a broad set of stakeholders:

- Patent holders
- Inventors
- Research institutes
- Banks
- Financial analysts
- Venture capitalists
- Funding institutions
- etc.

are all involved in valuing patentable technology and other IP.

Ice skating.....

- Ice skate manufacturer
- Small-sized company
- Own assembly plant (very small)
- In-house Research laboratory (Low temperature, microscopes etc.)
- Patented new innovative blade technology (very low-friction surface)
- Research in progress: Figure skating blades and Speed skating blades

Q: What is the value of this IP (portfolio)?

What exactly are we valuing?

- Patents
- Technology
- Patentable R&D projects
- Patentable ideas
- Technology portfolios

„patentable technology”

A simplified definition:

The development of Intellectual Property

=

The transformation of MONEY into KNOWLEDGE

The commercialisation of Intellectual Property

=

The transformation of KNOWLEDGE into MONEY

......but how much?

Why value this technology (IP)?

- *Internal management*
- *Transfer transactions*
- *Financing*
- *Taxation*
- *Accounting*
- *Infringement Litigation*
- *Etc...*

Internal management

Intellectual Asset Management:

- *Decisions whether to file for patent protection*
- *Internal investment decisions*
- *Commercialise or licence out decisions*
- *Risk analysis*
- *Economic efficiency analysis / value orientated management*

Business related and company law

- *Company formation (contribution in kind)*
- *Company transactions*
- *Due diligence*
- *Mergers and acquisitions*
- *Capital increase*
- *IPO*
- *Valuation of enterprise*

Transfer transactions

Technology transfer:

- *Licence-in / license-out (with royalty stream)*
- *Sale of IP*
- *Alliance or partnership/joint venture*
- *Technology access*
- *Patent pools*
- *Employee inventor compensation related to technology transfer*

Access to financing

- *Use of IP to attract investment*
- *Use of IP to attract venture capital*
- *IP as collateral for bank loans*
- *Showing the significance of IP when applying for grants and tenders*

Accounting and taxation

- *Taxation, Corporate Tax*
- *Financial Accounting*

Method toolbox

All these reasons require different approaches to valuation.

- What exactly is the IP being valued?
- When?
- Why? The purpose of the valuation?
- Who is doing the valuation?
- For whom?
- ...

IP Valuation methods:

Quantitative

Attempt to calculate the monetary value of technology

1. *Cost Based Methods*
2. *Market Based Methods*
3. *Income Based Methods*
4. *(Option pricing based methods)*

Qualitative

Attempt rating and scoring of technology based on factors which influence it's value.

- *Methods based on the use of value indicators*

Cost based methods

The cost to create the IP = **IP value**

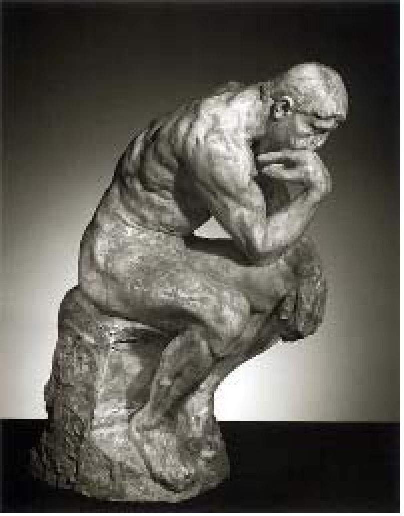
Measure IP value through the calculation of costs incurred in the development of the technology….

….. Or if the company were to develop a similar asset either in-house …..

…or externally

-Historic Cost
–Replication Cost
–Replacement Cost

Result: IP value in EUROs



Example:

Replication Cost Method

Costs to develop similar blade technology in-house:

- R&D costs (allocated to IP)
- Costs of the application (incl. costs of attorney etc.)
- IP Rights maintenance costs
- …..etc.

= **IP value**

Market based methods

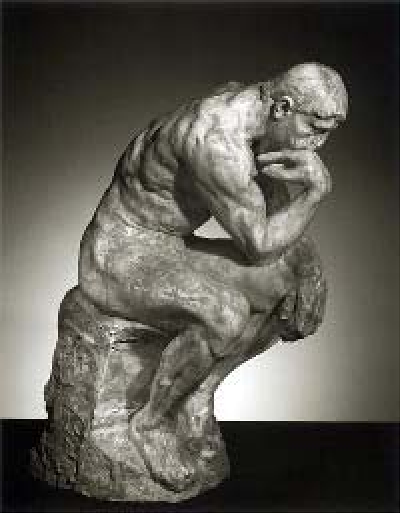
Price of comparable IP traded between parties **=** **IP value**

Measure IP value through comparison with prices achieved in recent comparable transactions:

- IP transactions between independent parties
- traded in an active market
- market forces decide the accurate price

–Comparable market value
–Comparable royalty rate

Result: IP value in EUROs



Example:

Comparable Transactions

The market leader in performance speed skates recently licensed it's technolology to a big sports company.

Our local skate manufacturer competitor has aquired with a world market leader in producing leisure skates.

Is „their" technology and „our" technology comparable?

= **IP value**

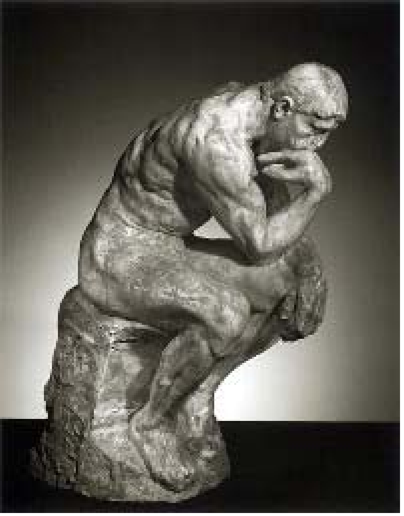
Income based methods

Ability of technology to generate future income **=** **IP value**

Measure IP value through measuring the potential future benefits of the subject IP (Present value of future benefits)

- Potential future revenue from IP
- Discounted according to the risk involved
- Discounted according to the time value of money
  - Discounted Cash Flow (DCF)
  - Risk adjusted net present value (rNPV)
  - Relief from Royalty
  - Technology Factor method

Result: IP value in EUROs



Example:

Discounted Cash Flow (DCF)

Determines the value of the IP by computing the present value of future cash flows from the IP, over its useful life.

Variables required for an accurate IP valuation:

- income stream from IP
- estimate of IP's useful life
- understanding of IP specific risk factors (determination of discount rate)

= **IP value**

Value indicator based Methods

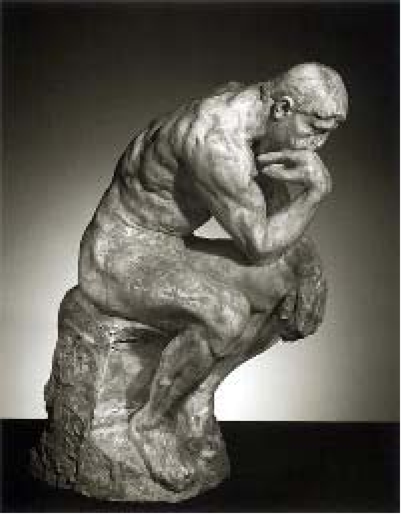
Scoring of technology based on the quality of related factors = **IP value**

Provide a value guide through scoring of different factors related to the IP.

These factors or “value indicators” can influence the value of the IP both positively and negatively.

-Patent information related value indicators
-Evaluation of value indicators

Result: IP value displayed as a score



Example:

Evaluation of value indicators

The assessment of a technology according to different indicators such as strength of IPRs, transferability, market potential, technology level, etc.

Each indicator is rated 1-5 according to the technology’s strengths and weaknesses.

40 or so value indicators form a whole picture of the patent and its relative risks and opportunities.

These are then displayed in various tables and graphical forms

= $\boxed{\textbf{IP value}}$

Reasons for valuation	***Quantitative Methodology***			***Quali-tative***
	Cost approach	***Income approach***	***Market approach***	***Value indicator based***
Internal Management		*	*	*
Sale Price	*	*	*	
Licence	(*)	(*)	(*)	
M &A		*	*	
Collateral for loans		*		
Infringement Litigation		*	(*)	
Financial Accounting	*			
Taxation, Corporate Tax	*	*		

Source: Watanabe, 2002.

(*)= used widely *(*)= used to some extent*

Thank you

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