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WIPO NATIONAL SEMINAR ON THE VALUATION OF INDUSTRIAL PROPERTY ASSETS

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THEME I: THE IMPORTANCE OF ASSESSING THE VALUE OF INDUSTRIAL PROPERTY ASSETS - VIEWPOINT OF A RIGHT HOLDER (INVENTOR, ENTERPRISE OR INSTITUTION)

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I. INTRODUCTION

1. From the viewpoint of an industrial enterprise it is absolutely clear that industrial property assets must continuously be monitored as to their economic value, because their generation and maintenance cause expenses and their exploitation may generate income.

2. Thus, any entrepreneur must be aware of the importance of assessing the value of industrial property assets in order to optimize the processes in the enterprise.

3. Additionally, also state authorities, in particular tax authorities, are keen on assessing the value of industrial property assets, not only in order to find new sources of tax income, but also in order to better evaluate the industrial property transactions taking place between enterprises, independent and affiliated ones.

II. DEFINITION PROBLEMS

4. One essential problem in the assessment of industrial property assets lies already in the manifold existing definitions with different meanings. In particular, intellectual property experts and tax experts often use different language for same matters. So, the OECD in its 1995 edition of "Transfer Princing Guidelines for Multinational Enterprises and Tax Administrations", Chapter VI, item 6.5 restrict the term "intellectual property" to "know-how and trade secrets", i.e. the unregistered industrial property rights. Evidently, the intellectual property community construes the term "intellectual property" in a much broader sense.

5. Nevertheless, the aforementioned OECD Guidelines give very valuable information for the present topic, and the intellectual property community should pay highest attention to the further development of those Guidelines in order to reduce information gaps at this critical interface area.

III. TYPES OF INDUSTRIAL PROPERTY ASSETS

6. Being aware of the manifold different definitions it seems mandatory to agree on a common terminology before speaking on assessment procedures.

7. I therefore suggest to define the different types of industrial property assets as set forth in fig. 1:

In accordance with the cited OECD guidelines I suggest first to distinguish between
- technological intangibles, and
- marketing intangibles.

8. However, I suggest additionally also to distinguish between
- basic intangible assets,
- unregistered industrial property rights, and
- registered industrial property rights.

9. The specific meaning of the suggested items may be read from fig. 1.

10. I feel that it is particularly important to distinguish between the "basic assets" and the "rights": The "basic assets" - i.e. "technology" and "goodwill" - are the true value carriers, whereas the "rights" are the legal instruments to obtain legal titles to these value carriers vis-à-vis third parties.

IV. TECHNOLOGICAL INTANGIBLES

Technology in an Enterprise

11. Before trying to assess technological intangibles of an enterprise it seems worthwhile to make oneself familiar with the generation and flow of the basic asset "technology" in an enterprise. This is shown in fig. 2.

12. Technology is created in the R&D centre of the enterprise designated the "Technology Producer" (TP), and flows either to TP's factory, and/or to TP's Technology Transfer unit (TT) and from there to a Technology Recipient (TR) ("licensee").

13. According to tax laws, any technology transfer between affiliated companies must be carried out "at arm's length", i.e. the Technology Recipient (TR) must pay a compensation to the Technology Producer (TP) for the technology received. This is monitored by the tax authorities designated "IRS" (Internal Revenue Service).

Valuation

14. The basic methods to value intangible assets are
1) cost approach (also: R&D investment)
2) income approach (also: profit expectation)
3) market approach (also: sales comparison)

(cf. Weston Ansan in les Nouvellses June 1996, 45 - 51; and R.F. Reilly, R.P. Schweihs in les Nouvelles June 1996, 52 - 58).

15. In the capital goods industry the application of method 3) is more complicated than with consumer goods, since goods of the competition are not easy to compare to each other. Thus, for obtaining a first and rather easy feeling on the intangible's value, methods 1) and 2) may be preferred. However, from a more intellectual property law oriented point of view, method 3) appears to be more correct.

16. However, as stated above, it is in any case advisable to distinguish between the basic intangible asset "technology" and the pertinent industrial property rights.

Cost and Income Approach

17. By applying methods 1) and 2) one may arrive at a situation as shown in fig. 3:

18. Method 1) is represented by the curve "R&D investment". As shown, the greatest money amount goes into R&D itself, i.e. into the generation of the basic asset "technology". The additional costs for obtaining legal protection - as indicated by the dotted line "with patent" - are only marginal as compared to R&D expenses.

19. However, the R&D investment method will often not be accepted in practice. Namely, an investor is not interested in the R&D expenses, but rather in the market success of the technology developed. So, method 2), the "Profit Expectation" method will more be appreciated.

20. Such "Profit Expectation" may be based on the operating earnings (OE) which are (or may be) obtained by the enterprise. However, one must be aware that Operating Earnings are influenced not only by the intangible "technology", but also by other different factors such as management and production processes, market and currency factors etc.

21. So, when basing "profit expectation" on "Operating Earnings" one must be aware that the calculated value of the intangibel "technology" will normally not be equal, but rather only proportional to the operating earnings (OE).

22. As shown in fig. 3, OE may grow with market penetration until a saturation is reached. The competitors will be left behind at this first time due to the economy of scale effect. Then, however, competitors will catch up, and technology will become more and more obsolete, and OE will decrease.

23. If technology is legally protected (dotted line "with patent") the decrease may be delayed and be due to ageing technology only.

24. As explained above, the value of the technology may then be considered as proportional to the operating earnings which the proprietor of the technology will obtain over the lifespan of the technology. Concrete figures for such assessment (with the exception of the proportionality factor x) are well available in an enterprise. Factor x must be estimated from case to case, but may be considered equal between the entities of the same enterprise.

25. The value of the pertinent industrial property rights would be equal to the value added thereby to the OE. Concrete figures therefor depend, naturally, on the strength and the geographical cover of the industrial property rights in view of pertinent competitors.

Market Approach

26. From an intellectual property law oriented point of view neither cost nor income approach are convincingly correct.

27. Namely, if one owns a technological intangible - inclusive of the pertinent rights, i.e. the legal title thereto - it is irrelevant what the cost had been by which that intangible had been produced, and which profit any user of that asset may obtain.

28. Rather, from this point of view the correct value of a technological intangible can only be that amount which the market is willing to attribute to that intangible as part of the pertinent sales - regardless if these yield earnings/profits or losses.

29. Accordingly, under these aspects one would base any industrial property asset valuation on comparable license income.

30. The commonly well known licensing fromula is indicated in fig. 4 which gives an overview on both the Income and the Market Approach.

31. In practice, the royalty rate z will mostly be related to the revenues (which are the sum of all sales of pertinent products and/or services at their Net Sales Prices).

32. However, instead of revenues also value added income may be taken to demonstrate that the licensee pays only for its added value. This is taken into account by factor u.

Management

33. The management of technological intangibles shall again be separately looked at as to the basic asset "technology" and "industrial property rights" (cf. fig. 1):

34. The management of technology generation is the normal task of a R&D manager. The management of pertinent industrial property rights, however, needs the joint efforts of the R&D management and the in-house intellectual property experts:

Basically, the following process steps must be managed:
a) acquisition/submission of invention disclosures
b) decision finding as to "first patent filings"
c) decision finding as to "subsequent patent filings" (geographical cover)
d) optimizing scope of legal protection (technological cover)
e) policing market and prosecuting infringers
f) optimizing technology transfer transactions (license-out, license-in)

If step a) is not successful, evidently the whole process will not work.

35. But also the importance of step d) should not be underestimated: for this step highly qualified patent experts are mandatory.

36. The basic valuation steps are evidently steps c) and d): if the technology is of high, or at least: interesting, value, then the value of the pertinent industrial property rights depends on the optimum technological and geographical cover.

V. MARKETING INTANGIBLES

37. For assessing the value of "marketing intangibles", in particular trademarks, it is again helpful to distinguish between the basic intangible asset "goodwill" and the pertinent protecting rights.

38. Additionally, it is helpful to distinguish between "house marks" (or "company marks") and "product marks":

39. "House marks" are used for all products and services of an enterprise (e.g. "Volkswagen"), and product marks for special products and services only (e.g. "Santana", "Jetta" etc.)

40. Obviously the "house mark" adds the value of the whole reputation of an enterprise to the business of those who use it. Whereas the "product mark" adds a much minor value.

41. For assessing the value of a "house mark", in the capital goods industry mostly the "market approach" is preferred, more specifically: the "relief-from-royalty method" as set forth in Arthur Andersen, "The Valuation of Intangible Assets".

42. The reason for this lies mostly in the fact that in the capital goods industry in a group ("concern") the "house mark" normally is centrally owned by the leading enterprise (often the "holding") which has also the responsibility for maintaining the "goodwill". Thus, that leading enterprise will never transfer the trademark as such to any other enterprise, but will rather concede only rights of use, i.e. license the house mark out, represented by method 3).

43. As to "product marks" there may be applied more flexibility.

VI. SUMMARY

44. There is no doubt that any entrepreneur must continuously monitor the value of the enterprise's industrial property assets, since such assets cause expenses, on the one hand, but may generate income if exploited, on the other hand.

45. One should distinguish between "technological intangibles" (such as "technology", "know-how", patents etc.) and "marketing intangibles" (such as "goodwill" and trademarks etc.), on the one hand, and "basic assets" (such as technology and goodwill) and "industrial property rights" (such as patents, trademarks, and "proprietary information") on the other hand.

46. Both "technological intangibles" and "marketing intangibles" may be valued by the "profit expectation method" (or "income approach", resp.) for obtaining a quick result, but should be valued by the "market approach" from an intellectual property law oriented point of view.

47. The basic values are founded by the "basic intangible assets" (technology and goodwill), and the registered "industrial property rights" (patents, trademarks) add value thereto by excluding competition to sponge on the said values or by other profitable technology or goodwill transactions. Valuation of such industrial property rights must focus on their "geographical" and "technological cover". Unregistered industrial property rights are highly vulnerable from a legal point of view, but form a big part of the "commercial intangibles" package in capital goods industry. Their value depends on the factual protection the owner provides therefor.

[End of document; Annex follows]

Intangible Property of an Enterprise

		technological intangibles	marketing intangibles
basic assets		**"technology"** product & production knowledge drawings computer software expert knowledge etc.	**"goodwill"** customer lists distribution channels marketing concepts reputation & credibility advertising success expert knowledge databases etc.
industrial property rights	**unregistered**	**"proprietary information" know-how & trade secrets**	
	registered	**patents utility models design patents semic. topographies copyrights**	**trademarks tradenames**

Fig. 1

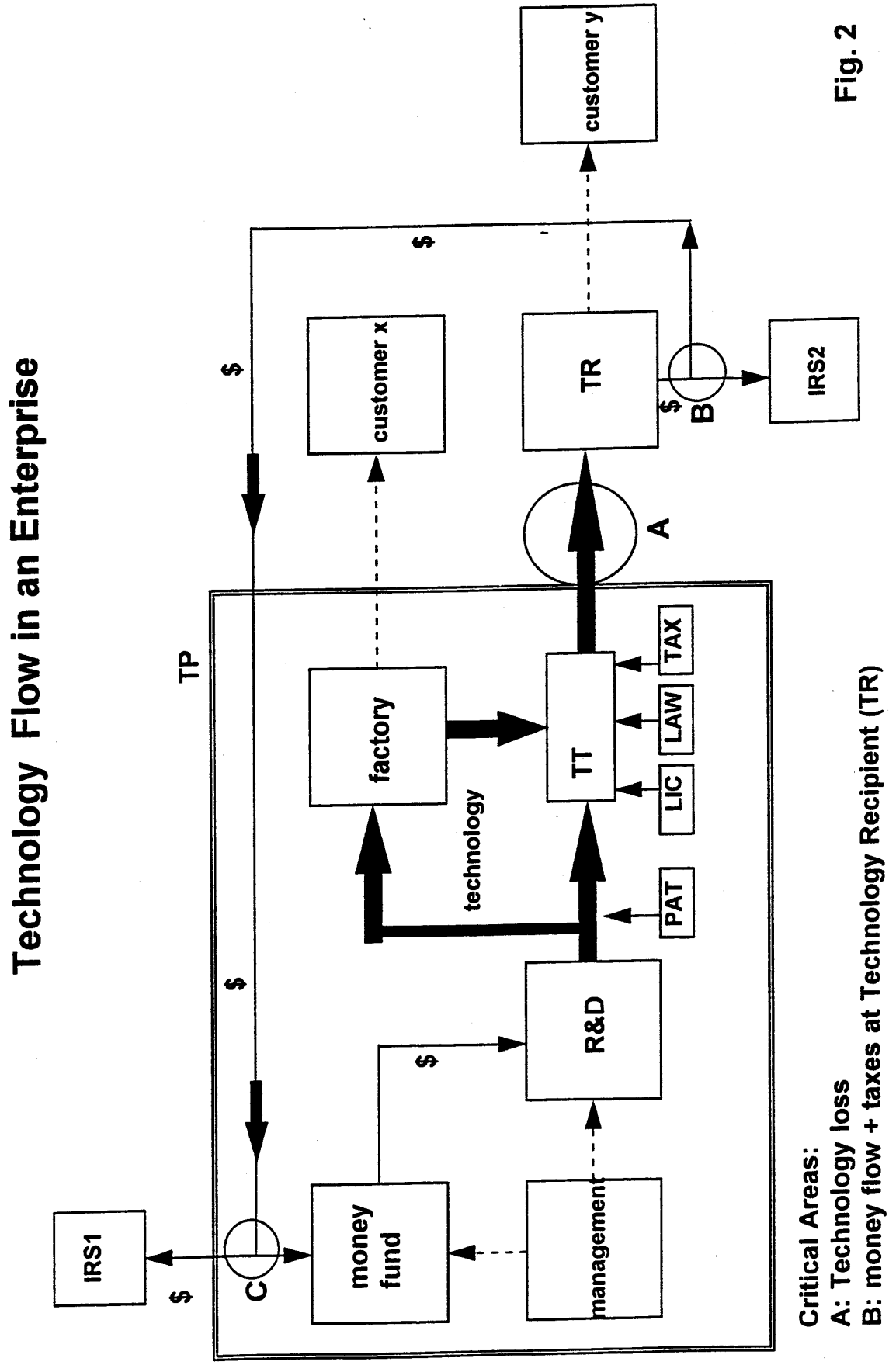
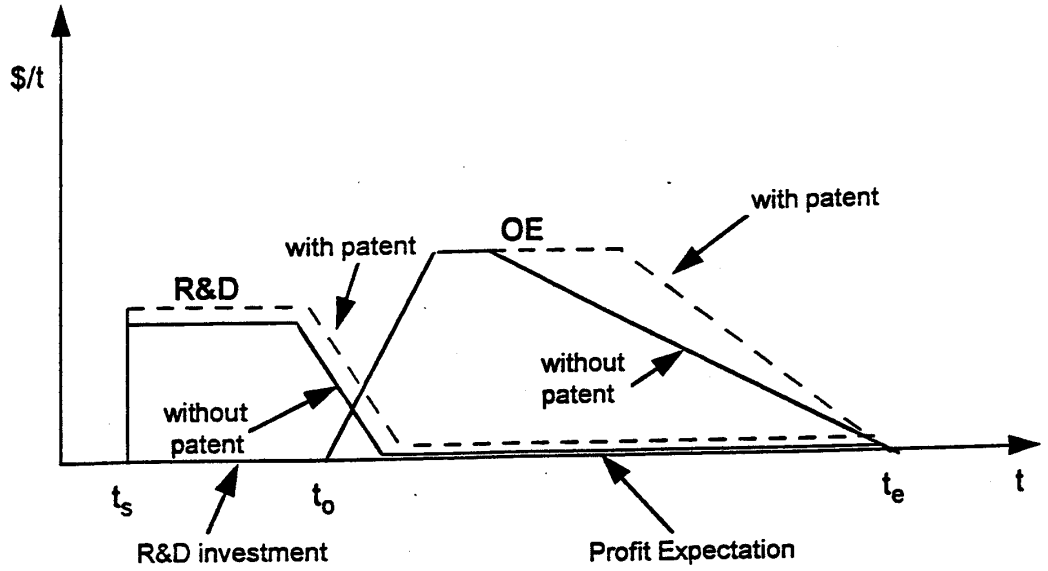

Technology Flow in an Enterprise
customer y
customer x
TR
IRS2
IRS1
money fund
management
R&D
factory
technology
TT
TAX
LAW
LIC
PAT
TP
A
B
C
$
Critical Areas:
A: Technology loss
B: money flow + taxes at Technology Recipient (TR)
C: money flow + taxes at Technology Producer (TP)

Fig. 2

Technology Valuation



R&D = R&D expenses per time unit for creating the technology

OE = operating earnings per time unit from marketing the technology

t_s = start R&D, t_o = start marketing technology,
t_e = end lifespan of the technology

goal:
OE $(t_e - t_o) \geq$ R&D + interest

value of the technology at time t:
v(t) = OE $(t_e - t) * x$ %
with x = proportionality factor regarding other influences on OE

value for practical purposes:
v(t) = [revenues $(t_e - t)$] * [result margin y %] *[proportionality factor x %]
with result margin y = OE / revenues

Fig. 3

Valuation of Industrial Property Assets
- Overview -

Basic Formula:

$$V = R\ (t_e - t_o) * F$$

V = value of asset
R = revenues caused by pertinent technology / goodwill
$(t_e - t_o)$: lifespan of technology / goodwill
F: factor

Variants

1. Income Approach ("Profit Expectation")

$$F = x\ \% * y\ \%$$

x %: part of revenues which is directly caused by technology / goodwill
y %: result margin of enterprise
(operating earnings OE / revenues)

2. Market Approach

$$F = u\ \% * z\ \%$$

u %: value added part of revenues (optional)
z %: market conform royalty rate

Fig. 4

[End of document and of Annex]