Intellectual Property based Financing



G. Migliori at the : 8th Annual WIPO FORUM on INTELLECTUAL PROPERTY and SMEs

Unioncamere, Rome, 4th-5th October 2010

Reference CITATIONS:

- "Today's markets are being transformed by intangibles, a growing number of them are scrambling to find methods that will help them better use, develop and communicate about them" NYT report Sep 07
- "there is huge value & first mover advantage becoming a leading intermediary in this unconsolidated multi-billion "corporate service" in Europe" Global head of technology, Merrill Lynch (14bn portfolio)
- Europe's priority is the creation of OTTs (offices of technology transfer), be they internal like ours or external like MrgoodIDEA V.Fykovski, former Head of technology transfer at University of California.
- Future competition in the world is IP competition Wen Jibao, chinese prime minister
- "The Italian Model has finished its "value cycle". Creativity, design, flexibility, adaptation of existing technologies no longer suffice. It needs true Research & Innovation!" G.Pietro, head Autostrade+Turin Univ.



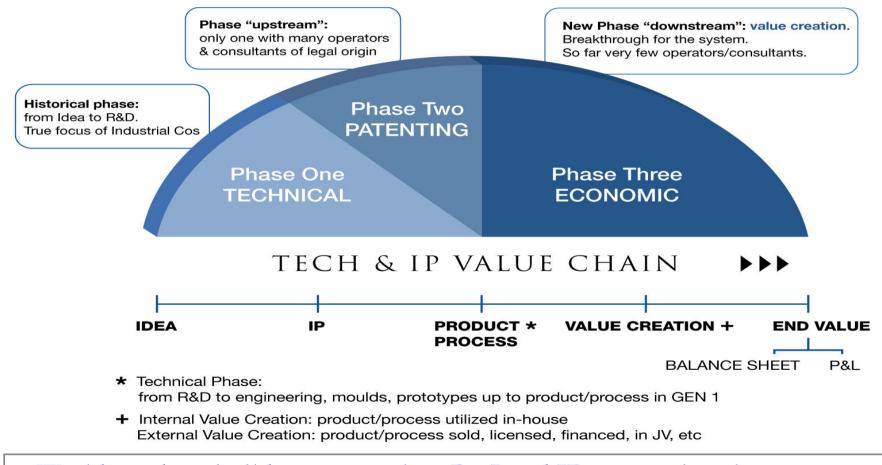
R&I: cultural+practical **OBSTACLES** to **IP** Financing

- Resistance to MOVE from INTERNAL to EXTERNAL R & D.
 COs+R&D world seek new Souces of Ideas, R&D, Patents, Licenses i.e. IP from the MARKET. This needs Brokerage, Trading, Licensing, Outsourcing.
- INNOVATIVE COs to become MORE DYNAMIC but change made difficult by lack of "specialist service sector" as in USA (see pg.6)
- INNOVATION ASSETS to be MORE MARKETABLE (i.e. better structured, which essential to improve spin-offs & university sales)
- the LANGUAGE "R&D to ENTERPRISE" MUST EVOLVE to beat : "not invented here" - "my R&D is best" - "base research is the only way" - etc.
- EU FUNDING to go to INNOVATION as well as RESEARCH
- EU PROCEDURES must be "<u>simplified</u>" (EU work in progress)
- FUNDING must be more "<u>up-fron</u>t" and less "reimbursement"
- SERVICES & CONSULTING must be more "LOW-COST" (pg.7)



R&I SECTOR needs more "economic & financial" experts

<u>Phase 1</u> is essentially in-house R&D. <u>Phase 2</u> is the classic technical/legal advisory <u>Phase 3</u> : the new way of valuing, market-making and monetizing Technology & IP



World needs to build more top class R&I and IP economic value-creators

COST: any Low-Cost TOOLS ? (in SME-based economy)

There are good news for INNOVATION COSTS !

- GENERAL factors allowing reduction in costs :
 - Emergence of "Full value-chain" Advisors (reducing time and failure rates)
 - New EU Mix will drive larger volumes of Innovations leading to lower deal costs
- STRUCTURING services allowing reduction in costs : - despite major new contents, prices down to 5-15K from 75K+ (eg. PPR with Val+Position)

• VALUE-CREATION services allowing reduction in costs :

- Trading platforms are reducing costs (eg. transaction, search, etc.)
- Licensing is not costing less but is producing more (eg. wider applications/scope)
- Open Innovation, R&D JVs, etc. are growing ways to reduce costs
- FINANCING services allowing reduction in costs :
 - Better EU-derived services leading to more Public/Private funding (which costs less)
 - Initial impact of IP on credit, debt and other Innovation operations



EMERGING MODELS

- 1. IP VALUATION : still needing "benchmarks", but there are now Models available (i.e. statistical, automatic, low-cost) which : preferred by <u>A. EU/NAT/REG</u> funding B. <u>by PRIVATE</u> Finance
- 2. LOW-COST SOLUTIONS to insert in Public or Private strategies
- **3.** IP integrated into Innovation-Led CORPORATE STRATEGY i.e. M&A, international growth, Licensing, JVs, Collaborations
- 4. Joint PUBLIC/PRIVATE TECH&IP Support strategies
 - Direct Investments (specially on Regional basis)
 - More structured deals
- 5. TECH&IP Exchange PLATFORMS □ Global IPXI or Macro-Sector/Territorial/Academic Platforms
- 6. TECH&IP INTEGRATED SYSTEMS Regions or Tecno Parks or Districts or Enterprise Networks



"DRIVERS" of CHANGE (Solutions)

Some TRENDS or SOLUTIONS

- The economic CRISIS has accentuated the need for not OPTIMAL model for GROWTH : ALL-to-HIGH-TECH but REALISTIC model for GROWTH : ALL-to-ALL-TECH
- Resulting POLITICAL & STRATEGIC MIX changing (eg. in EU): from RESEARCH / HIGH-TECH / LARGE CORPNS to R&I / ALL-TECH / MSMEs
- Some of the Consequences :
 - Hundreds of BNs changing focus (for example in EU)
 - More Innovation Market
 - Better (larger) Intermediaries
 - IP as key reinforcement to Innovation & Technology
 - **More Private Finance** (public debts too high, private funds too low)
 - More Technology Investments going Early-Stage with IP

PUBLIC SECTOR - Europe's future plans (EU 2020)

EU INSTITUTIONS finally seem to want change, as direct reaction to post-Lisbon un-changed USA leadership in TECHNOLOGY.

Here are citations from a the key DOC : EUROPE 2020!

- "Smart Growth must reduce barriers to free movement of knowledge and innovation and also reduce gap between R&D and markets"
- "Inclusive Growth must build well functioning and connected markets for the 21st century where innovation & competition stimulate growth"
- "Smart Growth must combine supply-side with demand-side policies in innovation "

RESULT : Europe wants a more dynamic demand-side model which means more innovation flows, more exchanges, more MARKET !

PRIVATE SECTOR - reacting to the crisis with R&I

Irreversible changes are taking place which make a pro-active Tech & IP strategy inevitabile for SUPPLY (R&D world) and DEMAND (industrial cos)

- STRATEGIC Driver : impact of "intangibles" on Value of Balance Sheets. Intangible Assets have become the primary economic value and a New Asset Class. Technology & Intellectual Property are the main "intangible asset" for Companies !
- INDUSTRIAL Driver : Technology & IP are the 1° Factor of Competitiveness
 In situations of Competitive Gap, countries as well as companies are obliged to look at
 Tech&IP Flows as key to improving Exports and Product / Process Innovation.
- LEGAL Driver : more incisive courts + more aggressive owners/speculators = Technology strategies <u>before</u> non after products going to market in order to avoid copying and litigation. It's the end of the bad habit of "<u>first going to market then (perhaps) patenting</u>"!
- ADMIN Driver : by 2011-12 "Intangible Assets" in balance sheets. (IASB) International accounting boards are moving to ensure EU companies will insert intangibles in their accounts "even when not negotiated in active markets". First among them : Tech & IP.
- **FINANCIAL Driver : innovation & technology improve profit and productivity.** Banks, Funds and Investors prefer projects and risks which include IP and technology.



IP-Based FINANCING



SMEs' 4 main R&I PRIORITIES for "competitiveness"

VALUATION/ MAPPING/ COMPETITIVE TECH POSITIONING These services are "priorities" for MSMEs and their supporting institutions The optimise R&D & Tech investments and establish the SME posizioning in terms of "competitiveness of its intellectual capital" - nowadays 60-80% del Balance Sheet ! 2.

VALORIZATION & COMMERCIALIZATION of Patents & Licenses

with Private (brokerage) and Public (tenders, auctions, internat PI exchange) Markets

3.

INTERNAZIONALIZATION, M&A&A (Mergers, Acquisitions, Aggregations)

4.

INVESTMENTS & SPECIALIST FINANCING for TECH&IP

Through techniques of <u>risk</u> <u>reduction</u> and <u>IP portfolio management</u> supply of a range of services typical of a "specialist Investment Bank" - eg.: <u>Re-structuring</u>, <u>Loans</u>, <u>Leasing</u>, <u>Risk Capital</u> - all using IP and Patenting ASSETS !



Examples of Actual Market Deals - (single client)

- 1. IP-LINKED START-UP turned MID-SIZE M&A (pg.16)
- 2. CLASSIC IP-LINKED START-UP turned IPO (pg.17)
- **3.** MICRO-Co going INTERNAT through w/w licensing program Sector: packaging. Services and co-funding by public body.
- 4. MID-CAP sub of Large quoted Group switching Tech due to IP Sectors : from waste-to-energy to cleantech energy Value of switch : € 60M. Out - € 20M. In.
- 5. LARGE Engineering Co. reviewing w/w biz policies due to IP.IP policy able to transform "bidding" prospects + raise margins
- 6. LARGE CORP monetizing 200+ IP Portfolio "free-of-charge" - i.e. out of € 1M. annual IP mgmt fees



Example of FULL VALUE CHAIN - Low-Tech project

From Italian Tech&IP portafoglio of MrGI : <u>BULLOCK</u> Patented method patent owned by individual inventor. Developed in Italy. Sector : Auto accessories

G.Migliori acquired Option on "rights-of-use" nel 2004.

- 1. Option paid Zero and Technology patented and sold to sector SME for € 200.000 after 6 months marketing.
- 2. SME developed activity using MrGI services over 4 years.
- 3. Activity, Patents & Brand sold to sector Mid-Cap for € 17 M.

COMMENTS:

- true type of "tech venture capital", un-earthing value "upstream"
- proof that Low-Tech not tantamount to "low-returns"
- in today's IP mkt, IP or Tech Fund would have optimized ROI



Example from the SME Portfolio of MrGI : <u>ADTECH</u> This technology has always belonged to one individual. It has been developed in Italy. It is in the IT/Web space.

1. In the USA its appeal to <u>IP investors</u> was limited to Litigation and its value over 2 years rose to 28 Million.

2. In the USA its appeal to <u>industrial/financial investors</u> in 1 year (2009) rose to 75 Million. The Company has been quoted on Nasdaq OTC in Feb 2010.

3. In Feb 2010 its strategy doubled with Lawsuit against 1st (of several) major internat Cos for Patent infringement

RESULT : market value by early 2011 put at 150 Million. (N.B.: the Company is still in its pre-turnover phase!)

Examples of Actual Market Deals - (multiple client)

- 1. REGION (as well as Tecno Park Assoc.) reviewing entire TECH Portfolios due to more affordable/reliable IP solutions. Size: up to 500 Patents + other IP and 4.200 Technology projects.
- 2. NEW mixed PUBLIC/PRIVATE <u>Regional Technology FUND</u> <u>centered on IP</u>. Initial Value : € 15 M. (pg. 19 for National version)
- 3. BANKING GROUP reviewing strategy towards CORP clients through IP (innovation) seeking increases in : A. market share, B. corp client satisfaction, C. share of innovative cos.
- 4. MACRO-SECTORS developing a "<u>Dedicated Marketplace</u>"
 A. "Financial IP" Sector see example of changes at pg. 20
 B. High-IP incidence sector with 4.400 creative internat. Cos
- 5. IP-BASED (i.e. intangible) Import/Export Alliance
 eg. Mid-Tech Tech&IP exchanges Italy-India

good**IDEA**

R&I+IP: PUBLIC/PRIVATE FUND "success" from Italy

[Following is a "virtous model" tipped to be repeated throughout Italy and the EU]

SUDTECH - a new Public/Private Innovation VC Fund

- 1. The Ministry for economic development makes available € 37.5 M. for specific investments into Innovative projects and companies provided these have significant Intellectual Property.
- 2. Private VC and PE Funds are invited to match such Capital to build a € 75 Million mixed Fund.
- 3. The Fund was fully capitalised in June 2009, including several quality bias (eg. specific ip/sectors, geo focus, size of deal, etc.)
- 4. RESULT : through typical credit leverage (up to 100% of capital base) the Fund has turned a strategic view by a Public authority into a <u>€ 150 MILLION Targeted IP and Innovation vehicle for Italy</u> !



IP-Based FINANCING: comparison with classic VC & PE

Following is Example of how new TECH&IP Valuation & Risk-management methods are facilitating and accelerating the rise of A. IP-Based <u>dedicated marketplaces</u> B. more investments in <u>"early-stage" Assets</u>

RISK CAPITAL SECTOR-Example from Leading EU Market:

- 1. Capital Flows by classic Private Professional Investors i.e. VC or PE Funds
- 2. Capital Flows by NEW Private Investors specialized in Technology & IP

RESULTS from the 2 sectors - **PERIOD** 2006-09 :

- Example of EUROPEAN VC & PE Industry (100 Funds, 5.4 BN ava CAPITAL)
 Total Investment Flows in <u>Early-Stage</u> projects/companies : 158 Milioni (data is net of public and banking funds)
- 2. Example of TECH&IP SPECIALISTs (OT+MrGI, 2 small firms 1 US, 1 italian)
 Total Investment Flows in IP, mostly pre-money Patents : 150 Milioni (results include a 25% Gross Margin!)



NEW TOOLS AVAILABLE

"NEXT GENERATION" R&I (Tech) + IP Services

MARKET DEMAND TECH&IP PROBLEMS SOLUTIONS by

- Industrial Cos
- Company Assoc
- Assoc inventors, technicians, scientists
- Techno & Scientific Centers and Poles

A NATIONAL "INDUSTRIAL TECHNOLOGY FINANCIAL" SYSTEM

- Universities
- Public R&D
- Institutions (regions, provinces, cities)
- Finance (banks, VCs)

Structuring

- Valuation of IP (patents)
- Technology Mapping as
- competitiveness strategy
- Tech & IP Development
- Technical & IP approach to innovative or tech projects

Value-creation

- Commercialization
- Trading -single, portfolio -private, public
- Licencing
- JVs on R&D & Projects

Financing

Use of Tech & IP as new asset for Corp bal-sheet & cash-flow
Financial Operations linked to benefiting or using Tech&IP



- (UE, national, regional, local)
- Leaseback e Securitizations
- M&A based on Tech & IP
- VC+PE based on Tech & PI



TOOLS : IP Valuation - low-cost+neutral+objective

Valuations Models acceptable to the financial sector are a breakthrough !

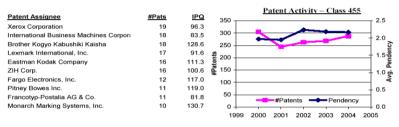
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	1.74 98.7% OTHER 1.37 89.6% Q SCORE ¹ 180.5 99% SCORE ⁴ viii 162.5 97.3%	97.8% 997% 97.9% 90.2% 38.8% 95.3% 98.9% 99.7% 99% 95.9% 98.5% 96.5%
e Exp. Survival babilities ⁶	p. (Years) 16.7 15.7 15.7 13.7	M1 Y4 12.5 Y5 11.5 Y6 10.5 Y7 9.5 M2 Y8 8.5 Y9 7.5 Y10 6.5 M3 7.5 8/8 - - 97% - - 89%
information is statistical in nat consider, any legal opinions o subject matter of this Report. been established between IPC relied upon to prove or estat knowledge this Report and the	ure and is based on publicly available data id r other professional opinions, advice or other IPQ scores are predictive of maintenance rates scores and "fair market value," royalty rates, v lish the existence or probability of such facts information contained herein is complete and	TICE In for its content. This Report and all scores, ratings and other tertified in this Report. This Report is not based on, nor does and maintenance values only. No direct statistical correlation to add maintenance values only. No direct statistical correlation that alidity, enforceability or infringement and IPQ scores should not ba- THIS REPORT IS NOT LEGAL ADVICE. To the best of on accurate. However, PatenRatings makes NO WARRANTIES OI s for any particular purpose. You may wish to consult your legy

PATENT DUE DILIGENCE REPORT

REPORT DATE: January 11, 2006

Related Technology Space

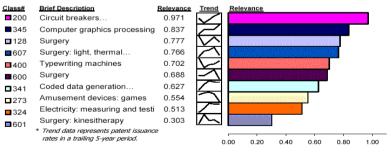
The '960 patent is currently classified by the USPTO in primary U.S. Class/Subclass 455/412 ("Telecommunications") and Int'l Class G06M 003/00. The closest corresponding SIC code is 3661 (Telephone And Telegraph Apparatus). Major patent holders in USPTO class 455 are listed below along with a patent-activity summary for the trailing 5-years.



Patenting activity in USPTO patent class 455 has been gradually increasing over the past 5 years, as shown in the above graph, with about 1897 new patents now issuing per year on average. Average pendency times (time from filing to issuance) have been increasing over the past 5 years to about 3.55 years currently, indicating a somewhat higher than normal backlog of pending cases awaiting examination.

Of course, it should be noted that patent technology classification is an inexact science and relies largely on subjective review and analysis by human decision-makers. Because of this, some patents and patented technologies may be "misclassified" and/or put into existing classifications that do not exactly fit or aptly describe a particular technology. Thus, it may be beneficial to consider other possible patent classifications. Other relevant USPTO patent classifications in this case are indicated below along with estimated relevancy scores and growth trends for each.

Relevant USPTO Classifications and Patenting Trends



Source: OTPR analysis

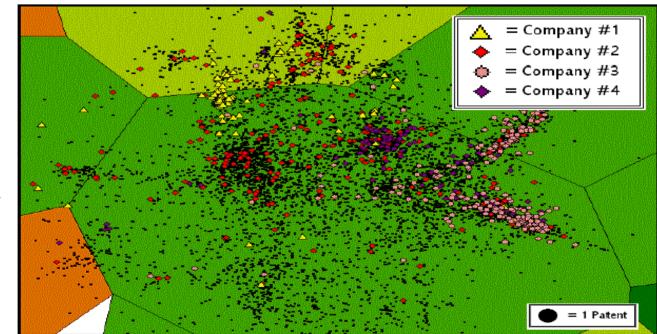
TOOLS : IP Mapping - competitiveness & relevance

D PATENT MAPPING through the use of BENCHMARK RATING

- Rating and relational mapping
- Tracking and ranking of Patent trends
- Identification of "white" or void spaces
- Relevance Analysis based on patent population proximity voids v. clusters overlaps - trends - saturation areas

IDENTIFY COMPETETIVE STRENGTHS OR WEAKNESSES IN YOUR COMPANY'S PATENT SPACE

Target for Sale, Development, Defense, Licensing, Or Innovation



Source: OTPR analysis

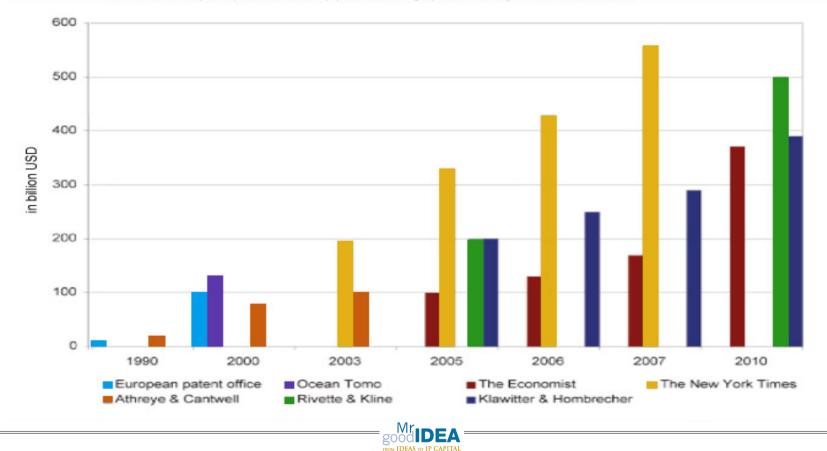


TOOLS : Licensing and Commercialisation





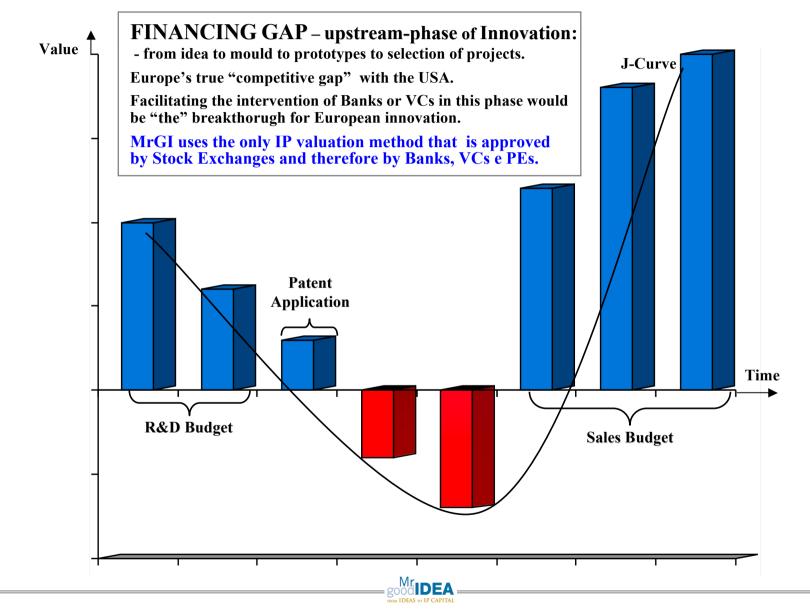
Sources: european patent office, top press, leading operators, major research institutes



TOOLS : open Public Trading



TOOLS : "neutral" valuation of IP for venture capital



CONCLUSIONS

A more dynamic R&I and IP SERVICE SECTOR with better links to both CLASSIC FINANCE and IP FINANCE means :

ALL-TECH Low-to-Mid-to-High Tech
 ALL CORPS Micro to SME to Large Corpns
 ALL IP Patents, Trade Marks, Brands but also Know-how, Rights, Trade secrets

In my opinion, this would produce :

- **1. MORE VALUE** (both in quantity and quality)
- 2. BETTER RISK REDUCTION & MANAGEMENT
- 3. BETTERPENETRATION SMEs competing with Large CORP
- 4. MORE WIDESPREAD thus SUSTAINABLE GROWTH

5. MORE BANKS+VCs, KEY to INNOVATION Market liquidity



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