



***Improving Corporate Finance in Europe
- Standards for Evaluation & Valorisation of Patents and
other Intangible Assets in Business Transactions***

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ECONOMICA



Jointly for our common future

Europe 2020 Strategy - Innovation, IP and SME Financing

- European Communication concerning ‘Innovation Union’ (one of the seven flagships of Europe 2020 Strategy - EU COM 546/2010 final):
 - “innovation has been placed at the heart of the Europe 2020 strategy” and “it aims to **improve conditions and access to finance for research and innovation**, to ensure that innovative ideas can be turned into products and services that create growth and jobs” and
 - “to ensure a strong, competitive, and diversified manufacturing value chain, with particular emphasis on **SMEs**”.
- The same report mentions that “the economic benefits will flow from the **exploitation of IPRs in innovative products and services**”.

Source: European Commission (2010) http://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication_en.pdf

Emerging IP and Knowledge Markets in Europe - Starting-point for the EVLIA-Project

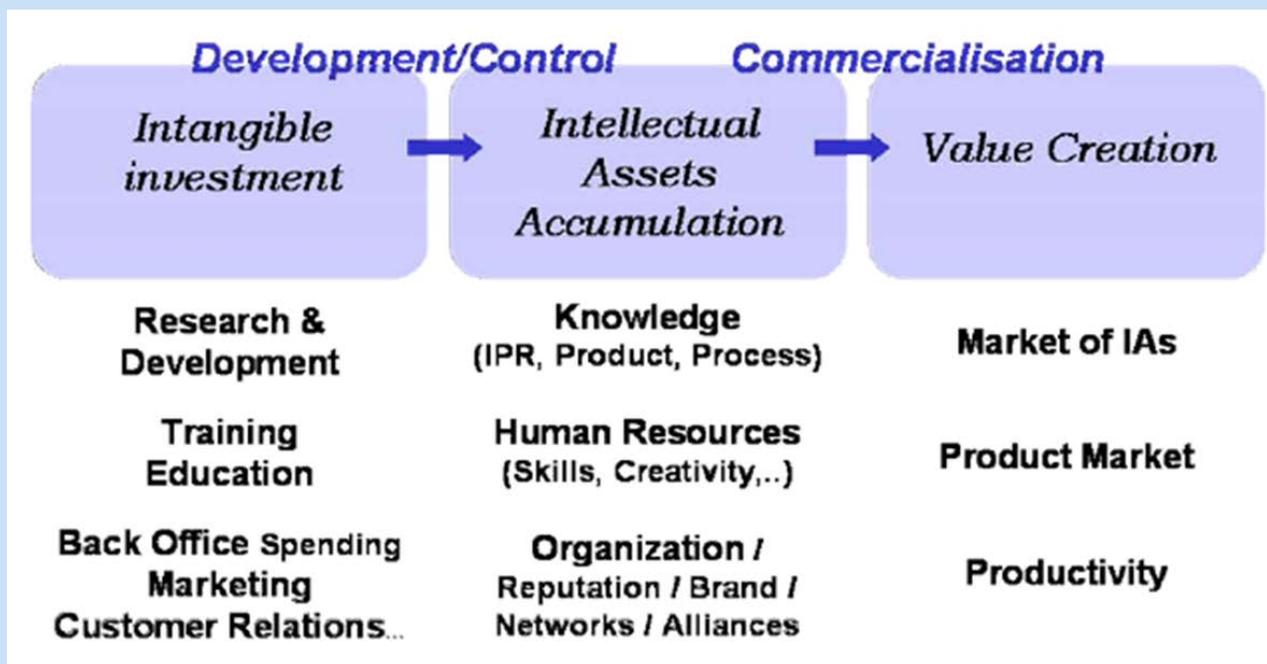
EU COM 546/2010 final, page 19:

“The markets for trading IPRs need to become less opaque and fragmented so that IPR buyers and sellers can find each other efficiently, financial investments are made in IPR assets, and transactions take place on fair terms. Although a number of initiatives are emerging both at Member State level and internationally, they should be developed on a European scale for maximum efficiency and to take advantage of economies of scale and scope. These knowledge markets should be open to new entrants and unlock the potential of IPRs that lie dormant in universities, research institutes and companies. This could generate major new revenue flows, which could be re-invested in research, thus creating a virtuous cycle.”

Source: European Commission (2010) http://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication_en.pdf

Intangible Asset Based Value Creation in Firms

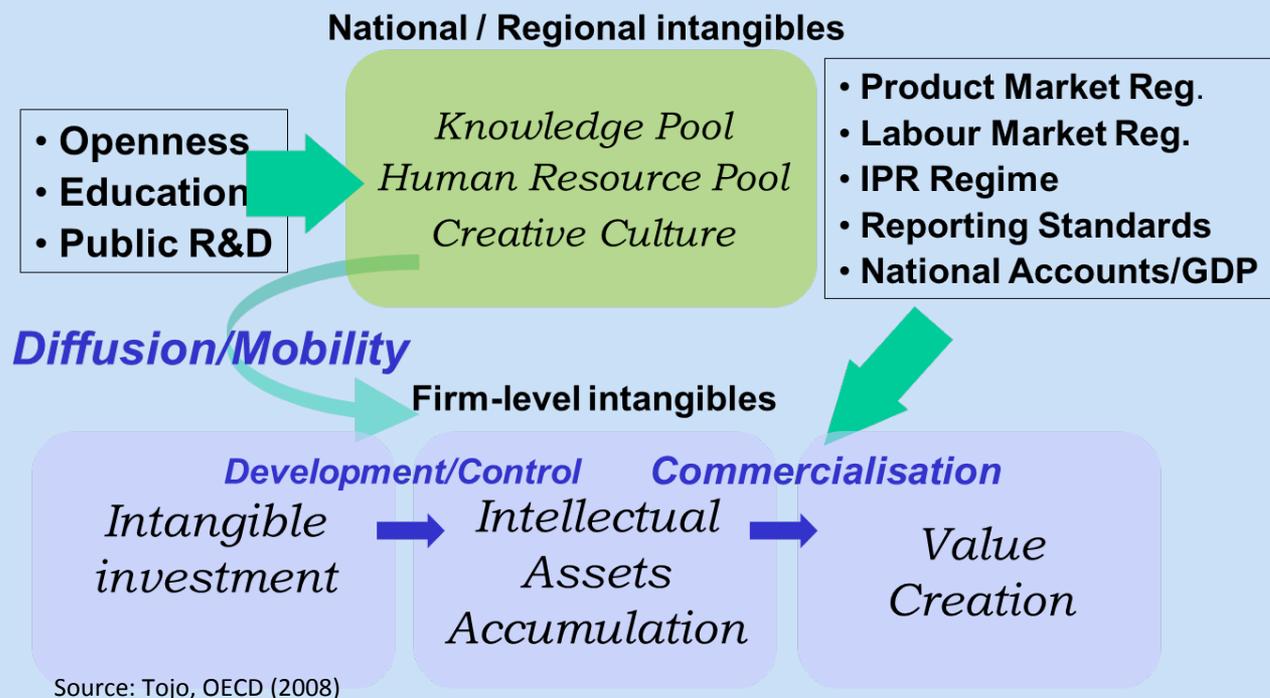
- Intangible Investments & Assets as Sources of Growth



Source: Tojo, OECD (2008)

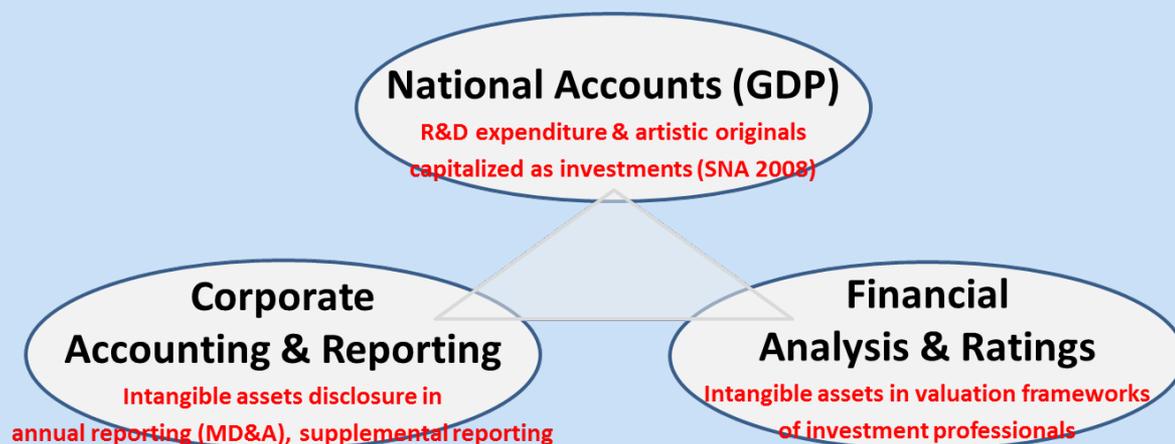
Making full value of good ideas by leveraging intellectual assets for financing SMEs in SEE

Macroeconomic Requirements and Framework Conditions for Capitalising on Firm's Intangibles



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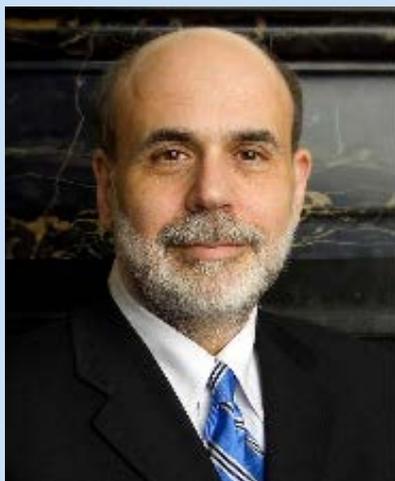
Future Performance and Value Creation Potential - The Value Creation Triangle of Intangible Assets



See also: Deutsche Bank
Research (2013) workshop
,Immaterielle Investitionen
und wirtschaftliches
Wachstum in Deutschland‘

[http://www.dbresearch.com/servlet/ReWEB?addmenu=false&document=PROD000000000322337&rdShowArchivedDocu=true&rwnode=DBR_INTERNET_DE-PROD\\$IMAPS&rwobj=ReDisplay.Start.class&rwsite=DBR_INTERNET_de-PROD](http://www.dbresearch.com/servlet/ReWEB?addmenu=false&document=PROD000000000322337&rdShowArchivedDocu=true&rwnode=DBR_INTERNET_DE-PROD$IMAPS&rwobj=ReDisplay.Start.class&rwsite=DBR_INTERNET_de-PROD)

Former FED Chairman Bernanke on Measuring Innovation and Intangibles in Macroeconomics



http://en.wikipedia.org/wiki/Ben_Bernank

Professor Ben Bernanke
Former Chairman of the United
States Federal Reserve

Bernanke in his Keynote-speech „Promoting Research and Development: The Government's Role” at OECD-Conference "New Building Blocks for Jobs and Economic Growth" at Georgetown University, Washington, D.C.

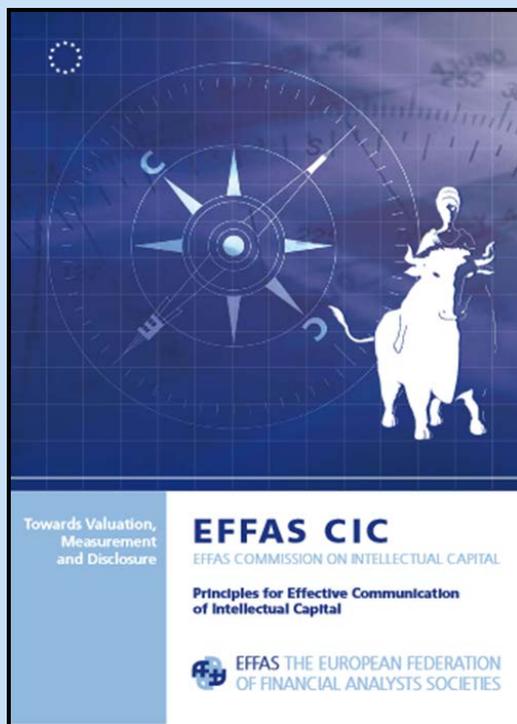
May 2011:

„(...) let me put in a plug for more work on finding better ways to measure innovation, R&D activity, and intangible capital. We will be more likely to promote innovative activity if we are able to measure it more effectively and document its role in economic growth.“

Source: Bernanke (2011): Promoting Research and Development: The Government's Role.

<http://www.federalreserve.gov/newsevents/speech/bernanke20110516a.htm#fn2>

Intangible Assets Disclosure and Valuation - Recent Developments in (European) Financial Industry



Source: EFFAS (2008)

- **2008** - the **European Federation of Financial Analysts Societies (EFFAS)** based in Frankfurt am Main published its **‘Principles for Effective Communication of Intellectual Capital’** – a pioneer approach in global financial industry (see page 4 ff):
[http://www.oefva.at/oefva/oefva_v3.nsf/sysPages/NL_3_2008.htm/\\$file/NL_3_08.pdf](http://www.oefva.at/oefva/oefva_v3.nsf/sysPages/NL_3_2008.htm/$file/NL_3_08.pdf)
- **2009** - ‘EFFAS-Principles’ were presented at the Worldbank in 2009:
http://info.worldbank.org/etools/docs/library/251723/2009-6-9-2045_Welzl_Session7_IC5.pdf
- **2011** - for the first time industry sector KPIs and interdependence micro-/macroeconomics were described (see page 4 ff):
[http://www.oefva.at/oefva/oefva_v3.nsf/sysPages/newsletter311/\\$file/NL_3_2011.pdf](http://www.oefva.at/oefva/oefva_v3.nsf/sysPages/newsletter311/$file/NL_3_2011.pdf)

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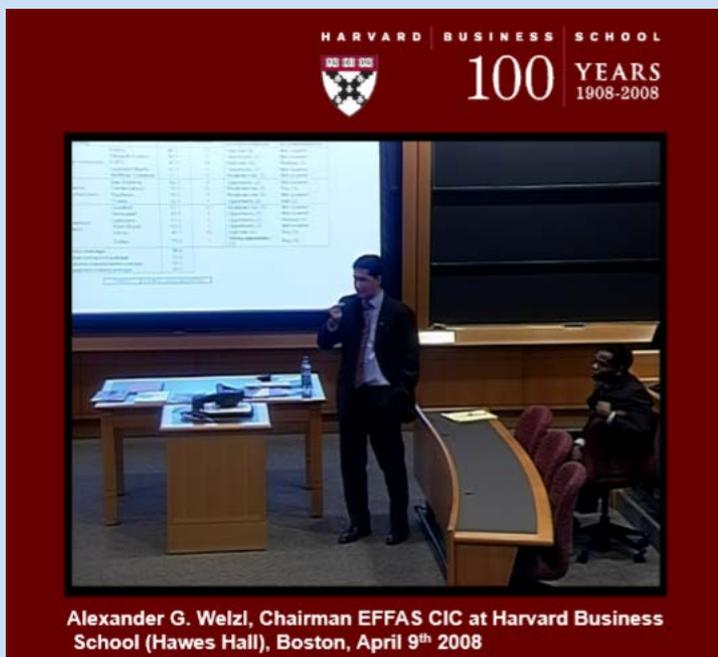
Discussion of European Capital Market Experts and FED-Staff at US Federal Reserve, Washington D.C. (2011)



From left to right: Alexander G. Welzl (EFFAS CIC), Daniel Sichel (FED), Eduard van Gelderen (EFFAS CIC & APG Asset Management)

- Discussion of the European capital market expert's (EFFAS) approach of appraisal and disclosure of corporate intangible assets
- Elaboration of linkages between micro- and macroeconomic measurement of intangible assets driven value creation, growth and competitiveness

Intangible Assets Appraisal - New Approaches Reach Mainstream

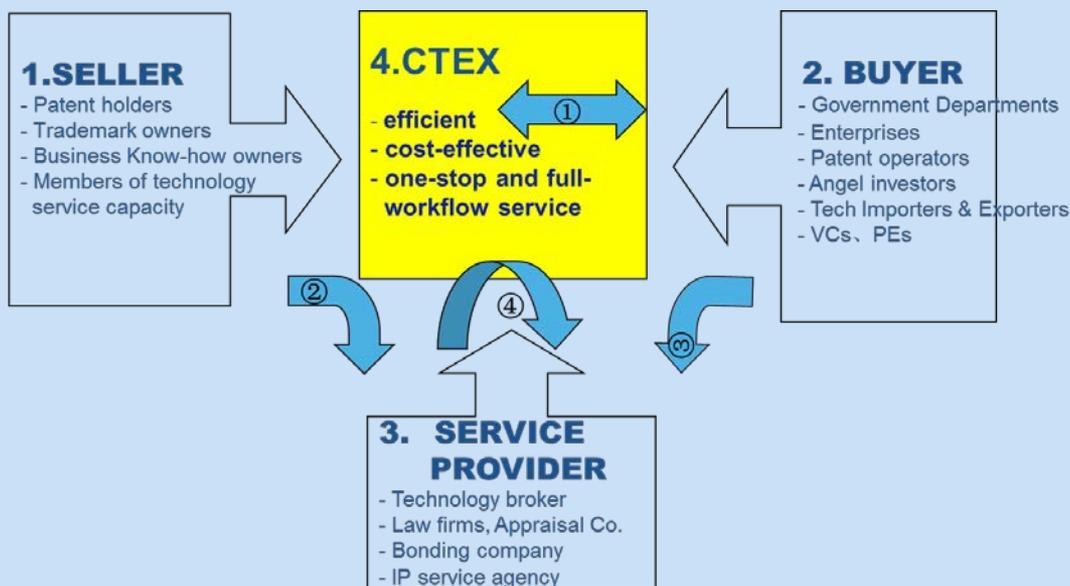


Source: HBS (2008)

- Seminar at Harvard Business School, Accounting & Management Unit, Boston/USA, 2008:
<http://www.youtube.com/watch?v=3KDAOOX7jLk>
- Seminar at SIX Swiss Exchange, Zurich/Switzerland, 2010:
http://www.aiwm.org/files/archive/AIWM_Agenda_Archive_2010.pdf
- Seminar at Oxford Department of International Development (ODID), University of Oxford/UK, 2009:
http://www.qeh.ox.ac.uk/events-1/special-events/qeh-distinguished-visitor-lectures?b_start:int=20
<http://www.economica.at/AGW%20Oxford%20ODID%20lecture%20full%20final%20241109.pdf>

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From ‚Made in China‘ to ‚Created in China‘ - Global Innovation Competition in the 21st Century

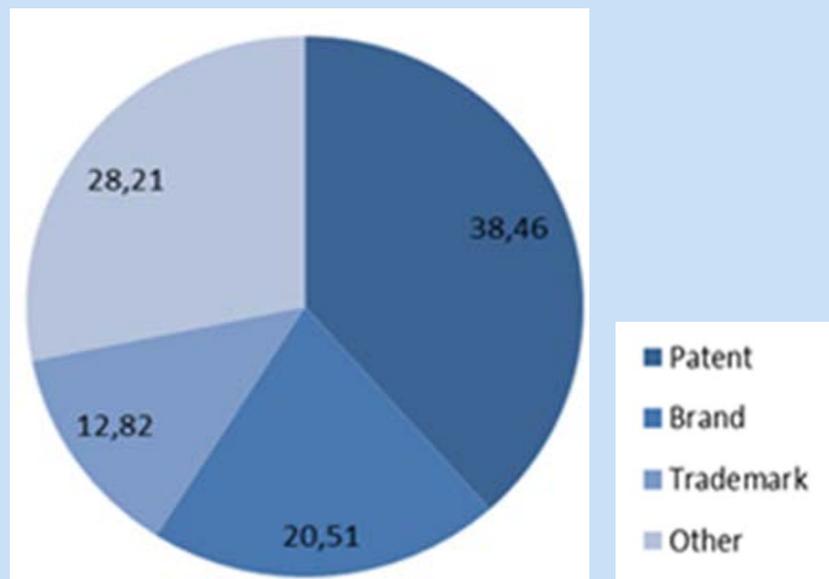


To spur the **national knowledge market in China** the Chinese Government (Ministry of Science and Technology, State Intellectual Property Office), Chinese Academy of Sciences and Beijing Municipal Government jointly established **China Technology Exchange (CTEX)** in August 2009:
<http://en.ctex.cn/>

Source: CTEX (2011)

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Analysis of Status-quo of Valuation of IP and other Intangible Assets in SEE-Countries and Austria (2013)



Results of EVLIA survey (online-questionnaire circulated in EVLIA-project partner countries):

37 cases of valuation of intangible assets (IA) as **part of a business transaction** (in companies/SMEs, public/state-owned institutions and financial industry)

Source: EVLIA (2013) <http://www.evliia.eu/>

The EVLIA 3-Tier Approach for SMEs & Investors - Identification, Visualisation & Valorisation of IP/IA



1. **Pre-check Analysis** (pre-check questionnaire)
2. **IP and Intangible Asset Visualisation** (inventory of IA of a firm, SME business plan including IA)
3. **IP/IA Valorisation** (based on standardised approaches)

EVLIA Tier 1 : Pre-check Analysis

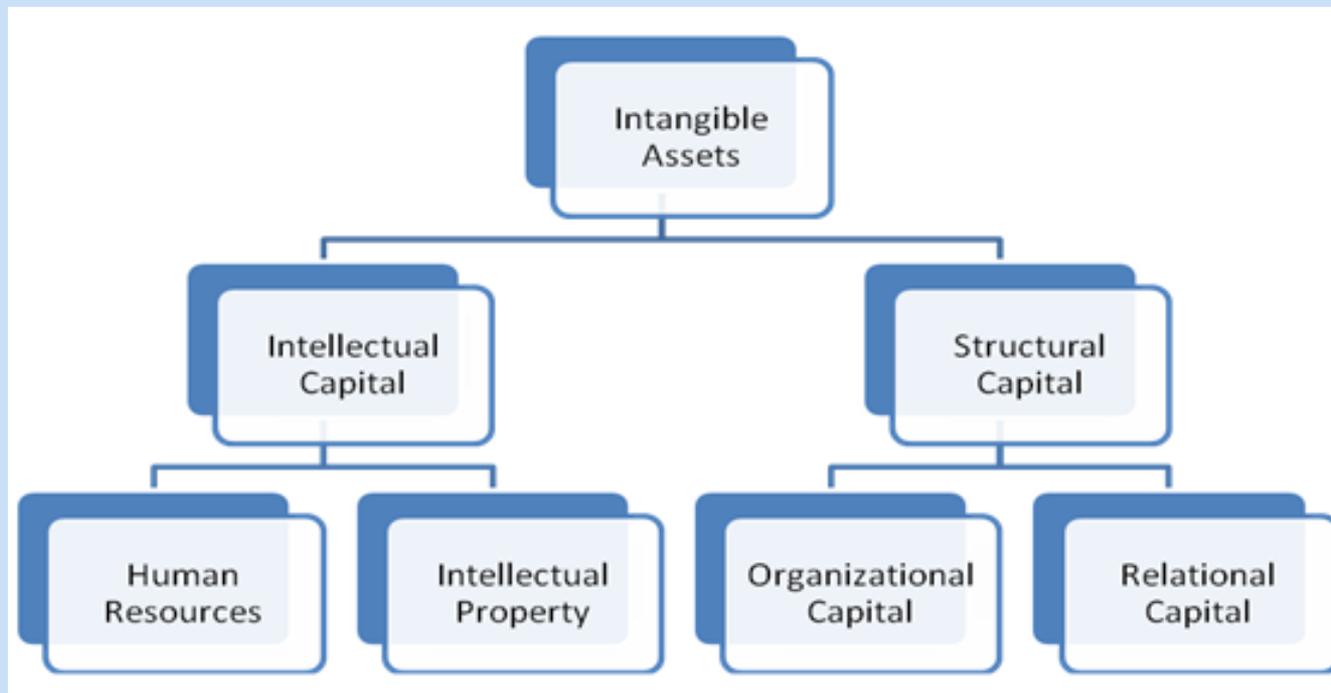
- **Methodology/Mean:** The service will be delivered with the support of a pre-check questionnaire available online. This tool gives a guideline to map on what the enterprise owns. The EVLIA experts will support SMEs to fill in the questionnaire. The results provided by the questionnaires will be further elaborated by the EVLIA experts in the next phase and will be explained to the SMEs before the check-up meeting.
- **Expected Results:** After the completion of the pre-check analysis, SMEs will have an initial overview of the Intangible Assets they possess.
- **Support Tools:**
 - Pre-check questionnaire
 - Support service from experienced and trained operators for filling in the questionnaire

EVLIA Tier 2: IP and Intangible Asset Visualisation

- **Methodology/Mean:** The service will be delivered with the support of an IA analysis tool. It gives a guideline to reflect on what the enterprise owns (i.e. the inventory of intangible assets), IAs role in the production function of a firm, IAs capacity of building value today and in the future concerning what the enterprise exchanges or sells of those intangibles, and the remaining possibility to transfer those intangible assets to third parties. It is based on the approach of valorizing four main categories of IAs: Human resources, IP, Organizational Capital and Relational Capital.
- **Expected Results:** An Integrated Business Plan including all IAs of an SME
- **Support Tools:** Guidelines to read the IA visualization tool, IA Visualization tool, Business Plan, Support service from experienced and trained operators for the elaboration of the IA tool and Business Plan

IP and Intangible Asset Visualisation (1)

- The Intangible Asset Universe of a Firm (Categories)



Source: EVLIA (2014) <http://www.evlia.eu/>

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IP and Intangible Asset Visualisation (2)

- Intangible Asset Universe of a Firm (Sub-Categories)

Human Resources	Intellectual Property	Organizational Capital	Relational Capital
<p>HR.1 Entrepreneurial Experience</p> <p>HR.2 Staff Education and Competences</p> <p>HR.3 Know-how - Tacit Knowledge</p> <p>HR.4 Staff Motivation and Loyalty</p>	<p>IP.1 Know-how - Codified Knowledge</p> <p>IP.2 Business Information. Trade, Business & Industrial/Technology Secrets</p> <p>IP.3 Patents and Inventions</p> <p>IP.4 Trademarks & Brands</p> <p>IP.5 Designs & Models</p> <p>IP.6 Author Right/Copyright</p>	<p>OC.1 Methods/Procedures for production/supply of services</p> <p>OC.2 Certificates</p> <p>OC.3 Project/Operations Management</p> <p>OC.4 Administrative System</p>	<p>RC.1 Customer attraction</p> <p>RC.2 Existing Clients Portfolio(s) Management</p> <p>RC.3 Management of Suppliers</p> <p>RC.4 Cooperations - Networks</p>

Source: EVLIA (2014) <http://www.evlia.eu/>

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EVLIA Tier 3: Intangible Asset Valuation

- **Methodology/Mean:** This step can use as input results from the EVLIA IA valorization tool, the business plan and the valuation methods adopted by the financial professionals, business consultants and private institutions in charge for financing in each area. Other Valuation methods can be selected according to the financial operators involved. **The project selected two standards methods (from Austria) that could be considered, in case of agreement of the financial professionals (A 6801 ‘Methods for patent valuation’, A 6800 ‘Valuation of the intangible asset “brand”’)**
- **Expected Results:** SMEs will have individually valorised intangible assets to be used in business transactions and for other purposes.
- **Support Tools:** a set of valuation tools provided by the EVLIA tool-set as well as by financial intermediaries and professionals involved.

Austrian Standards Expert-Committee on ‘Brand and Patent Valuation’

- 12 experts comprising representatives from Austrian Patent Office, Austrian Standards, several global, listed corporations (eg. electronics, steel etc.), financial professionals (EFFAS) as well as lawyers and patent attorneys
- Austrian Standards **A 6801 ‘Methods for Patent Valuation’** (in force since 01/ 2011) and **A 6800 ‘Valuation of the intangible asset “brand”** (in force since 12/2010):
<http://www.prnewswire.co.uk/news-releases/what-is-the-value-of-brands-and-patents-156543015.html>
- **Goal:** to provide harmonised, comparable and holistic valuations of intangible assets for companies with a **focus on innovative SMEs** as well as for share- and stakeholders
- **Valuation purpose:** licensing, raising capital, mergers & acquisitions, sale of a company, (financial) reporting, business liquidation

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Austrian Standards Press Conference 2011 - A 6800 and A 6801 on ‘Brand and Patent Valuation’



(from left to right): Friedrich Rödler (President Austrian Patent Office) , G. Rebicek (IP Consultant), Karl Grün (Director Austrian Standards) and Alexander G. Welzl (Chairman EFFAS CIC)

There was extensive media coverage in domestic and international media about the press conference held at Austrian Standards in January 2011 in Vienna:

[http://www.communications.co.at/index.php?id=168&tx_ttnews\[tt_news\]=19&cHash=a0a4342ba9a0d5dba3e5cdf6227a8b9](http://www.communications.co.at/index.php?id=168&tx_ttnews[tt_news]=19&cHash=a0a4342ba9a0d5dba3e5cdf6227a8b9)

<http://derstandard.at/1293371157987/Patente-und-Marken-Normen-fuer-geistiges-Kapital>

<http://www.bankkaufmann.com/meldung-313154.html>

<http://www.aktien-meldungen.de/Nachrichten/Nachrichtendienste/news-aktuell/2011/Was-sind-Marken-und-Patente-wert-8922070>

<http://www.prnewswire.co.uk/news-releases/what-is-the-value-of-brands-and-patents-156543015.html>

<http://www.prnewswire.com/news-releases/cual-es-el-valor-de-marcas-y-patentes-124235094.html>

Basic Structure of the Standards and General Valuation Approach

- The standards contain information on fields of applications, the valuation process, quantitative and qualitative assessments as well as requirements to be met by valuation reports and expert opinions.
- Moreover, practice-oriented examples are provided in the annex.
- Both standards integrate qualitative and quantitative valuation methods.
- The valuation process includes in **both standards legal, market as well as financial aspects**. In addition in the case of **patent valuation technological aspects** and in **brand valuation processes behavioural aspects** are included.

A 6801 ‘Methods for Patent Valuation’

The determination of the **overall ‘patent value’** is based on the **combination of a qualitative with the quantitative assessment of individual patents/patent families or patent portfolios** (included are also utility models and patentable know-how).

a) Qualitative assessment

- The output of this valuation step is the **‘patent indicator factor’** or **‘patent indicator coefficient’** which describes the strength of a patent/patent family.
- The PIF/PIC combines the results of the (blocking) impacts and effects of the legal and technological aspects as well as the market aspects of a patent/patent family.

b) Quantitative assessment

- The output of this valuation step is the assessment of the economic benefits across the economic useful life of a patent/patent family in Euros (**cash returns**)

Qualitative Assessment – the three Aspects

- **Legal aspects**

e.g. current status and validity, freedom to operate, coverage in geographical terms, patent claims (type and scope) etc.

- **Technological aspects**

amongst others market proximity (development stage and market readiness), type of technology (research/market driven, minor improvement vs. key technology) etc.

- **Market aspects**

comprising for instance market shares (own/competitors'), potential (product markets' size and development), options for marketing etc.

Qualitative Assessment – the Method

- **Questionnaire based method:** is oriented on IPScore® which was developed by the Danish Patent and Trademark Office – it was further developed by the European Patent Office in order to be useful for SME's innovation management.
- **Elements of the assessment:**
 - a) **individual items/values (and questions):** the weight of the question is multiplied with the compliance level (0%-100%) of the selected answer
 - b) **section (legal, technology, market):** adding-up of individual values
 - c) **patent indicator coefficient/factor (overall quality):** all section values are added up with a specific weight

Qualitative Assessment – Example (1)

Questionnaire structure

- Sections for legal, technology and market aspects (status):

Section	Compliance level	Weighting	Product
Question 1		0,15	
Answer 1	0		
Answer 2	20		
Answer 3	40		
Answer 4	70		
Answer 5	100		15
Question X		0.1	
Answer Y	10		
... etc.	30		...
Total			Sum of individual values

Qualitative Assessment – Example (2)

Calculation of the patent indicator coefficient/factor: all section results are summarized with specific weights

	Section total	Weighting
Section1	Sum1	X
Section 2	Sum2	Y
Section 3	Sum3	Z
Patent indicator coefficient/factor	$= (\text{Sum1} * X) + (\text{Sum2} * Y) + (\text{Sum3} * Z)$	

Quantitative assessment

- Valuation is based on fair value principle and tax amortisation benefits are taken into account
- **Methods of valuation:** income approach, market comparison approach or cost approach

A 6800 Valuation of the intangible asset ‘brand’

This standard is based on the previous Austrian ONR 16800 (2006) as well as ISO 10668 ‘Brand valuation – Requirements for monetary brand valuation’.

The **overall assessment** is based on the **combination of a qualitative with the quantitative assessment of brands** (and trademarks).

a) Qualitative assessment

- The legal, behavioural, market (as well as financial aspects) form the basis of the monetary brand valuation.

b) Quantitative assessment

- Based on returns (with regard to income, profits and /or cost savings) the result is the monetary value of a brand in Euros.

Qualitative Assessment

- **Legal aspects**

Comprises amongst others aspects of brand protection status (regarding trade mark registration/application, non registered brands), ownership etc.

- **Behavioural aspects**

They are used for adjustments in the course of the (financial) valuation of brands/trade marks and include an assessment of the strength of a brand (based on selected core parameters of behaviour that are objectifiable like publicity and loyalty).

- **Market and financial aspects**

Comprising core elements like market shares/volume and growth, competition status as well as monetary valuation by the market (consumers: strong brands/higher price premiums) and an analysis of historical financial data.

Quantitative assessment

- Valuation is based on fair value principle and tax amortisation benefits are taken into account
- **Methods of valuation:** income approach, market approach or cost approach

Quantitative assessment – Example (1)

Method of brand value calculation (income approach)

- capitalisation of the planned/future brand related cash flows (value: present value of future net income)
- use of asset-specific capitalisation interest rate which contains a **brand indicator coefficient/factor** (BIC/BIF)
- The BIC/BIF introduces behavioral and market aspects in the calculation

Quantitative assessment – Example (2)

- The BIC/BIF reflects the future business development risk influenced by the brand strengths/weaknesses
- **BIC/BIF calculation:** adding up of individual influencing factors (total customer and trade relations, brand positions/potentials) which are weighted due to economic sectors



Thank You!

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