



UNITED NATIONS
DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS
STATISTICS DIVISION

IA/15
14 July 2006

Seminar
Creation, Recognition and Valuation
of
Intellectual Assets

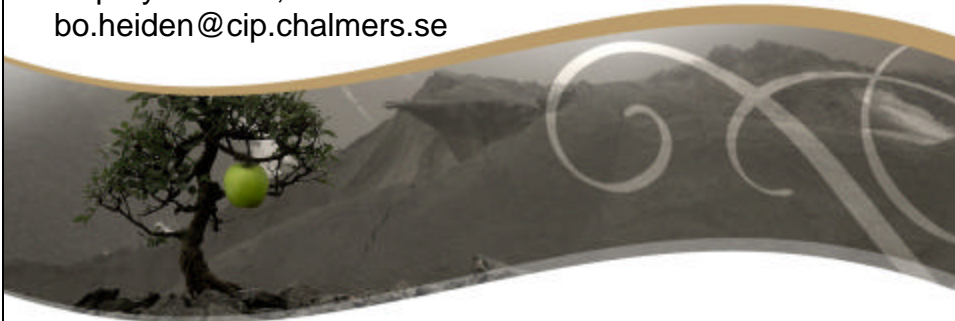
New York, 13 – 14 July 2006
United Nations, Conference room 6

Valuation and value creation in a knowledge economy
Bo Heiden,
Centre for Intellectual Property
Chalmers University of Technology.

Valuation and Value Creation in a Knowledge Economy

Valuing and managing intellectual assets, property, and capital

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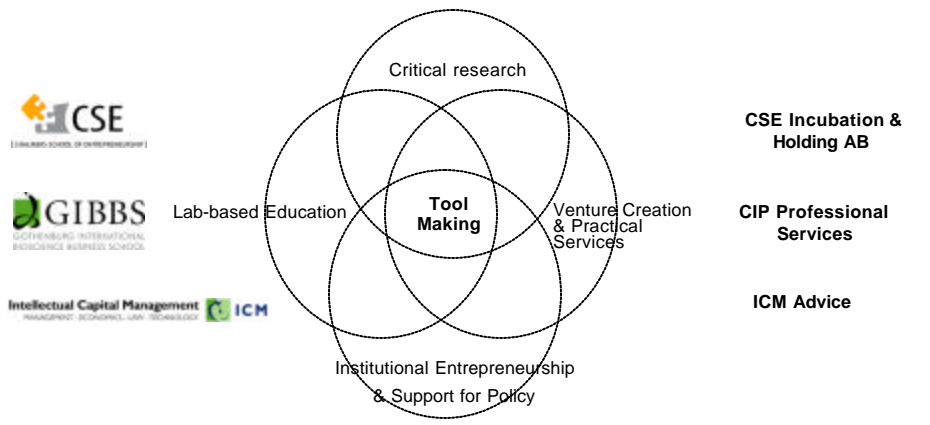


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The CIP platform...

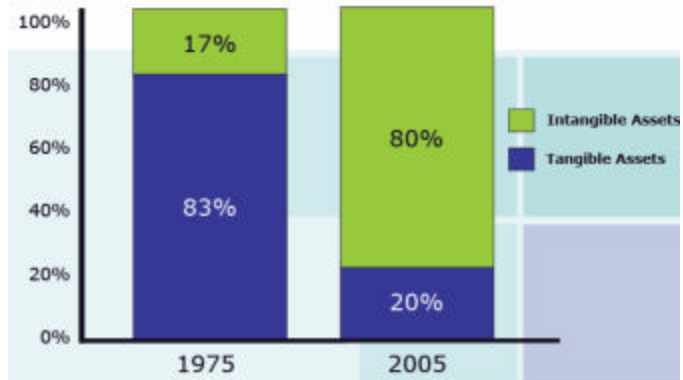


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Components of S&P 500 Market Value



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Another bubble ?

- Past - IT
- Future – Biotech?

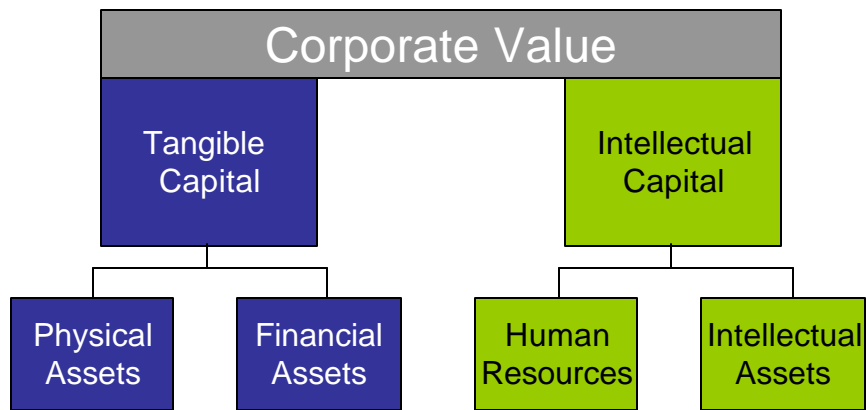


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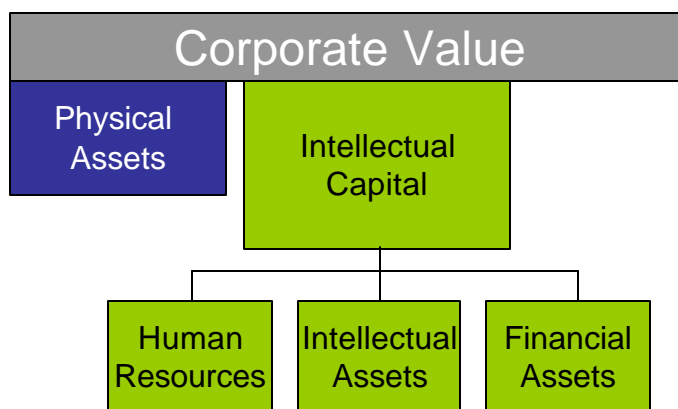
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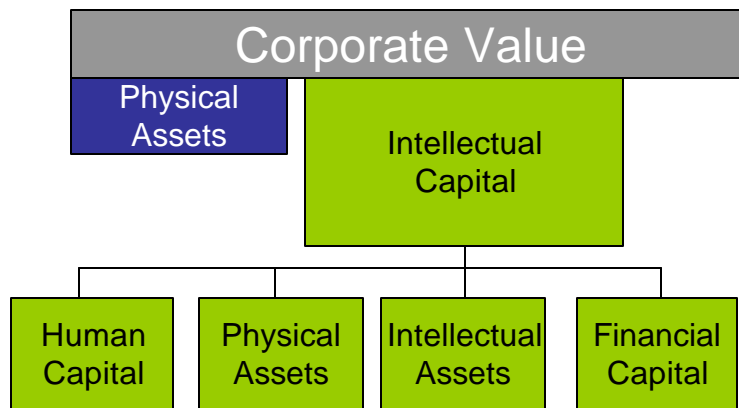
Model of Enterprise Value



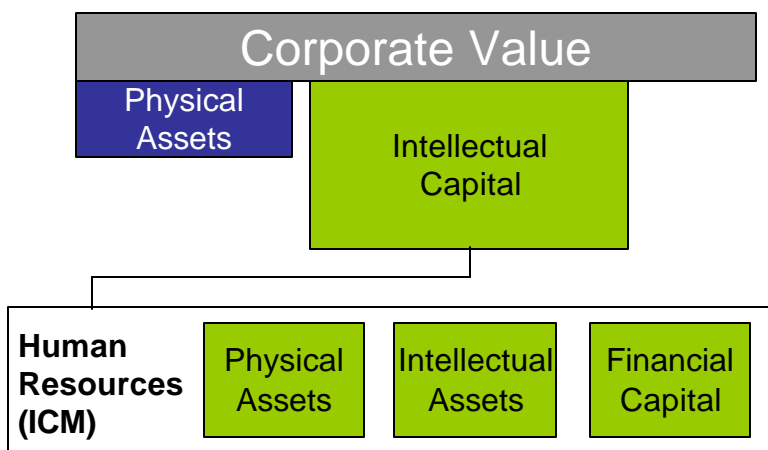
Model of Enterprise Value



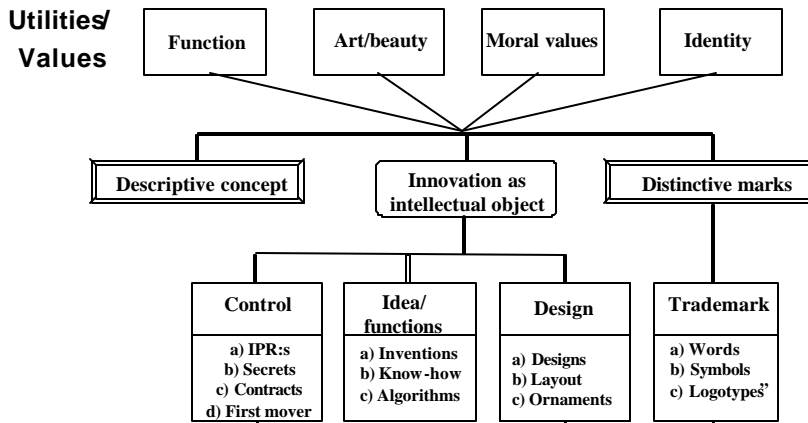
Model of Enterprise Value



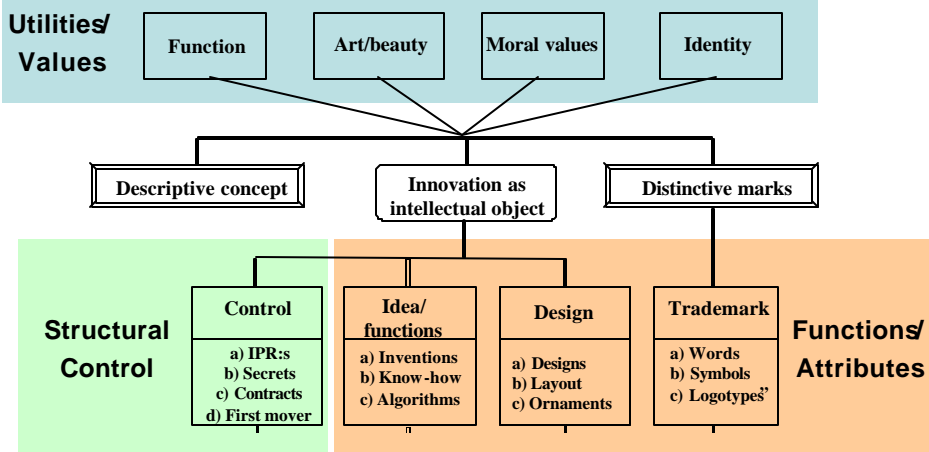
Model of Enterprise Value



Relationship between intellectual elements



Relationship between intellectual elements



The value of a firm's IP/IC can not be separated from the competence of its IP/IC management.

The change in business

- Product to concept



- The value was in the control of the production and the sales of cars
- After service, spare parts and other services were considered complementary and supported the sales of cars
- The brand was just a signifier of distinctiveness and considered relevant only for marketing

The change in business

- Product to concept



- Often very low, if any margins on the sales of cars
- Holistic approach with focus on brand management and the control of values
- The car has become just one building block in a sophisticated business model, with the “Volvo” concept as core business asset

The change in business

- Product to concept

The Car



Understanding the paradigm shift in value creation

The Concept



extracted from volvocars.com, 2006

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Nespresso



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Coffee Varieties

Immediately after grinding, the coffee is packed in hermetically sealed capsules. Created exclusively by Nespresso, this innovative process not only allows us to guarantee coffee freshness but also preserves the flavor and aroma for several months. Each individual capsule contains the precise quantity of coffee needed for one cup, thereby guaranteeing a perfectly extracted espresso, cup after cup.



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12 flavours/blends/roasts

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The Concept



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High quality technology **Creates consumer demand** **Channels of distribution**

↔ **Strong patent protection** ↔ **Strong brand**

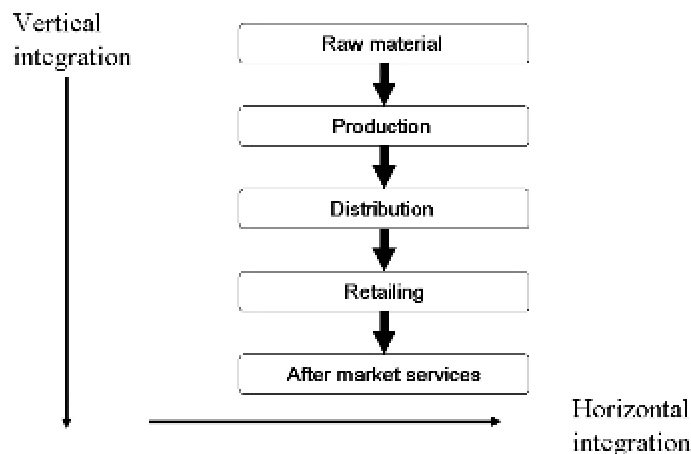
http://www.nespresso.com/world/en/concept/concept_e.html 17/03/2002

The role of property and capital in wealth creation

The total value of real estate not legally owned by the poor of the Third World and former communist nations is at least \$9,3 trillion... about twice as much as the total circulating US money supply... and nearly as much as the total value of all the companies listed on the main stock exchanges of the world's twenty most developed countries... twenty times the total direct foreign investment into all Third World and former communist countries in the ten years after 1989... forty-six times as much as all the World Bank loans of the past three decades, and ninety-three times as much as all development assistance from all advanced countries to the Third World in the same period.

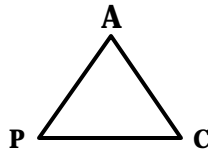
- Hernando de Soto, *The Mystery of Capital*

Structural captivity



Using the concepts of assets, property and capital

Assets as valuable objects



Property as objects for commercial transactions

Capital as objects in an machinery for creation of wealth

- R&D management
- Knowledge management
- Information management, etc

*Define, value, claim, manage knowledge as firm assets

Asset Management



Property Management

*Define, value, claim, manage knowledge as value propositions

- IPR management
- License management
- Management of virtual products
- Open source management, etc

Capital Management

*Define, value, claim, manage knowledge as objects in a financial machinery

- Securitization & management of IP as collateral
- Controlling, accounting & taxation
- Governance of bankruptcy estates, etc

IP at the core of the (*control of*) knowledge economy

- ❑ extract financial value
- ❑ develop new commercial transactions and relations
- ❑ organize creative efforts
- ❑ establish markets
- ❑ transform universities and innovation systems
- ❑ build an intellectual infrastructure

Intellectual Asset, Property and Capital Management

Intellectual value creation

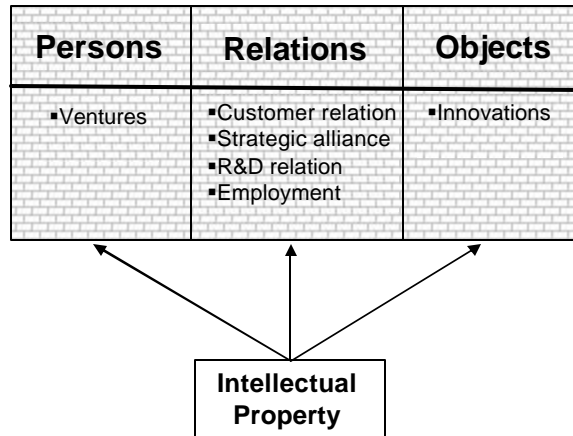
Financial value extraction

Creation of intellectual building blocks	
•Technology	•Patent
•Artistic work	•Copyright
•Know-how	•Design right
•Knowledge	•Trademark right
•Feature	•License
•Trademark	•Contract
•Descriptive mark	•Standard
•Core value	•IP strategy
•Business idea	•Business plan

Creation of intellectual structures
•Ventures
•Innovations
•Relations
•Markets
•Commons
•Infrastructures

•New value propositions
•Increase price
•Reduce costs
•More venture capital for less equity
•Accepted collateral to generate more favorable loans
•Securitize to generate capital

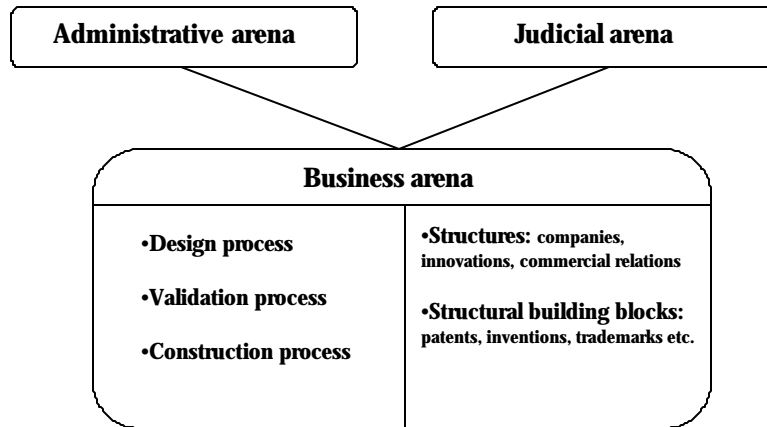
Re-defining Intellectual Property



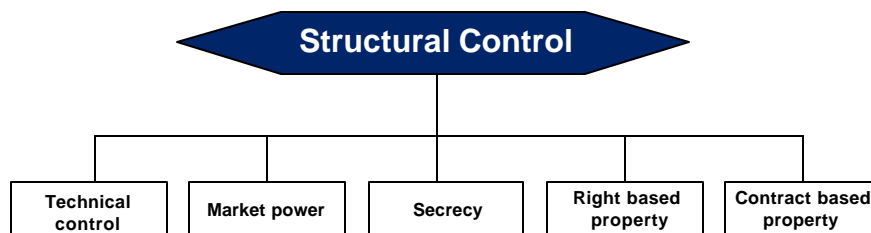
Evaluating IP as a Building Block

- Step 1. Preliminary definition of the substantial property
- Step 2. Preliminary evaluation of the human resources
- Step 3. Evaluation of the contextual usage of the property as a building block
- Step 4. Evaluation of the design process**
- Step 5. Evaluation of the validation process**
- Step 6. Evaluation of the communicative acceptance in the business arena**
- Step 7. Evaluation of the dependence of other claims
- Step 8. Evaluation of the monetization of the substantial property
- Step 9. Evaluation of the income extracted and possible to extract

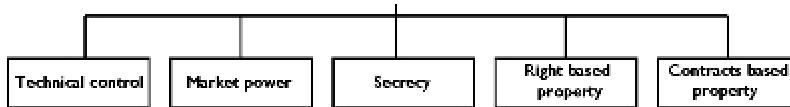
IP Value Creation – A Game on Three Arenas



Modern means to establish structural control



IP based business models using structural control



Music/Software Industry

- Napster-Grokster-iTunes
- Microsoft/MySQL
- Shrink-wrap
- DRM
- Standards
- Open Source/Proprietary
- Content/Software/Hardware

Biotech

- Myriad Genetics
- SARS
- Research Tools
- Reach-through
- Pooling?

ICT/Semi-conductor

- Qualcomm
- Vodafone
- Rambus
- Intel
- Standards
- Cross-licensing
- Design-Brand

What is the purpose of valuation?

Valuation standard

- Value in use (VIU)
- Fair Market Value (FMV)
- Cost to create (CTC)

Valuation contexts

- Management (strategic/operational)
- Market Transaction
- Financing (equity, debt)
- Bankruptcy
- Accounting

Accounting context

- Management tool
- Financing tool
- Bankruptcy tool
- Taxation tool
- Reporting tool
- Relevance for Knowledge-based firms (KBF)
- Micro vs. macro