Knowledge Management:
Managing the Dynamics of Intangible Assets and Innovation

Intellectual Assets Management Seminar
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Intangible Assets

How to:
- protect
- exploit
- turn them into profit
- unlock
- utilize
- codify
- discover

How to cultivate an environment where they can be created?
What is it about?

- IAM – a knowledge perspective
- Examples:
  - Corporate level (Novartis, Infineon)
  - Regional level (Science Parks)
  - National level (China, Finland)
Intellectual Assets

“non-physical source of value (claims to future benefits) generated by innovation, discovery, organisational design or human resource practices.”

Baruch Lev, Stern School of Business at NYU
Knowledge management is the art of creating value from an organisation’s intangible assets.

Karl Erik Sveiby

*Managing Knowhow*, 1987
Components of Intellectual Capital

A spectrum of knowledge-based assets

<table>
<thead>
<tr>
<th>Patents</th>
<th>Trademarks</th>
<th>Copy-Rights</th>
<th>Trade Secrets</th>
<th>Know-How</th>
<th>Knowledge providing value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Information databases</td>
<td>Confidential Information</td>
<td>Relational capital</td>
<td></td>
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<td></td>
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<td>Industrial Design</td>
<td>Technology</td>
<td>Unpatented Research</td>
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<td>Software</td>
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<td>Human Capital</td>
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<td>Culture</td>
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Tangible

most

least
Innovation
With closed boundaries

Philips Closed Innovation

Research

Development

market

Company boundary

Research projects

Microsystems
Nanotechnology
Materials
Displays
Innovation
With open boundaries
Value of Intangible Assets

- What is it that makes your business unique?
- What can you play on that’s not readily bought and sold in the marketplace?
Dynamics of Knowledge Creation

“We are trying everything that effects the dynamics of the scientists and their interactions with each other”

Jacky Vonderscher, VP and head of drug development at Novartis, Cambridge
Dynamics of Knowledge Productivity

High value interactions

Interpersonal skills

Open relationships

Collaboration

Economist Intelligence Unit: Foresight 2006
Mapping China’s Semiconductor Skills
- Chip Design

- Government (central, regional, local)
- Universities & institutes (beyond top-tier)
- IC design centers (Shanghai, Beijing, Shenzhen, Hangzhou, Suzhou, Xi’an, WuXi, Chengdu)
- Chinese flagship companies (Founder, Lenovo, Haier, TCL, ZTE, Huawei, Datang)
- Global design networks (flagships, suppliers)
- Transnational knowledge communities (peer group, diaspora)
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Where are the evolving flows and dynamics?
R&D in China

“Most of China’s R&D, including the much publicised R&D centres set up in China by multinational companies are glorified management training centres or doing R&D at a low level (e.g. software upgrades or system integration solutions), rather than the creation of innovative technologies and processes.”

Source: China Economic Quarterly
Innovation Strategies

China
- Scientific and technological development plans
- 11th 5 year plan
- Independent innovation
- Technological Innovation

Finland
Creating good innovative environment =
Information flows + networks + buzz + action + trust

Finnish Parliament, Committee for the Future, Technology Assessment 23, 2005
Finnish Innovation System
Finland’s Innovation Strategy

....”what is required is an innovation culture amalgamated by developer networks and a creative tension, building on the basic and modus operandi values of knowledge management: openness, trust, information sharing and collaboration”

Knowledge Economy Characteristics

Intellectual Capital as dominant economic value driver

Human Capital: level of education, value systems

Innovation dynamics: Knowledge flows and renewal

Innovative social systems

R&D networks and clusters

Dynamic Networks and communities

Clusters and connecting spaces

Openness and free flow of information

Knowledge ecologies

Intangible exchanges
Knowledge Creation …

- is not always based on rational action or planning…
- Producers of knowledge are neither machines nor “human resources”, but human beings with habits, cultural values, customs, likes, dislikes, preferences and emotions
- Political-economic demands matter, too.

Epistemic culture
Epistemic culture and their Features

- There have to be a sizable number of persons
  - who are relatively independent of outside control,
  - who work closely together
  - but are pitted against each other in competition for resources, recognition and excellence.

- Epistemic cultures resemble the culture of markets:
  - There are stringent rules of conduct, but
  - no undue regulation of values or prices;
  - there is competition but no open conflict and
  - there is a higher degree of autonomy of decision making.
Understand your Intangibles!

- Mapping existing intangibles (internal, external, stocks and flows)
- Identify relationships with outside partners (alliances, academic partnerships)
- Link results of assessment to business strategy
Changing Perception of IP?

“I would have shot my researchers in my company if they were talking about our ideas outside the company but I think a 12-year research project that we conducted could have been done in half the time and at half the cost [if there was such public collaboration],” said the chief executive of big pharma company.

World Economic Forum Davos, 2006

Open Innovation

Creative Commons

Non-competitive character of knowledge

Excess supply of knowledge
Research on Intellectual Capital

For more information on research on IC, current research projects and how to get involved, please contact:

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