

SMES, Open Innovation and IP Management: Advancing Global Development

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Overview of Talk

- 1. Open Innovation Basics**
- 2. Intellectual Property Management and Open Innovation**
- 3. Challenges Facing SMEs in the Global Economy**
- 4. The Necessity to Embrace Open Innovation**
- 5. The Way Forward (Strategies, Tactics, Options)**



Open Innovation Basics

Closed innovation consists of a contained, *straight and sequential* line from basic and applied research to product development, manufacturing and sales.

Open innovation consists of *networking* with other companies, R&D facilities, *interacting* with start-up ventures, public research institutes, universities, external suppliers and *sharing and accessing* outside information and technology.



Open Innovation Basics

Key aspects of Open Innovation:

- Networking
- Collaboration
- Entrepreneurship
- IP management***
- Global Vision
- Knowledge***
- Access to finance
- Access to information***



Open Innovation Basics

Open innovation does not refer to free knowledge or technology. While “***open source***” refers to royalty-free technologies, ***open innovation*** refers to collaborative networking, and may still involve the (significant) payment of license fees for IP.



Open Innovation Basics

In the emerging global knowledge economy, ***knowledge itself*** has become the key resource. Open innovation needs to be embedded in an overall business strategy that emphasizes the interchange of ideas, knowledge and technology in value creation.



Open Innovation Basics

In the 21st Century, SMEs cannot expect to do it alone, as contained units.

They must connect to the global network of information, technology, innovation and product development.

An Integrated Global Innovation Network System



Intellectual Property Management and Open Innovation

Intellectual Property (IP)	Intellectual Property (IPR)
Inventions	Patents
Proprietary Information	Trade secret
Brands and Logos	Trademarks
Shapes of Items	Industrial Designs
Fixed Works (writings, films, phonographs)	Copyrights



Intellectual Property Management and Open Innovation

Think of IP in the context of IPR, as ***bundles of rights***: Patent owners can divide their bundle of rights not only into separate exclusive licenses to make, sell, and use the patented item, but also divide each of those into fields of use.



Intellectual Property Management and Open Innovation

IPR protection facilitates (*via IP Management*):

- Preventing the copying or imitating of a company's products or services;
- Wise investment in research, development and marketing;
- A corporate identity through a trademark and branding strategy;
- Negotiating licensing, franchising or other IP-based agreements;
- Obtaining access to new markets.



Intellectual Property Management and Open Innovation

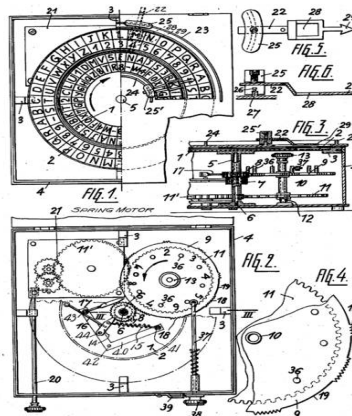
The strategic use of patents in technology management is twofold:

1. A granted patent protects the inventor, at least for a period of time, with exclusive IPR.
2. Patents contain *important information* for technology management.



Intellectual Property Management and Open Innovation

Business information is an essential part of today's global environment, a key factor in competition, for the effective research and development of innovation; ***patent information has a powerful and important role to play.***



Intellectual Property Management and Open Innovation

In the emerging global knowledge economy, knowledge itself is a key asset.

Access to information drives innovation.



Intellectual Property Management and Open Innovation

For example, **SMEs** can benefit from the wealth of technological and commercial information available in patent and trademark databases to:

- learn about recent technological breakthroughs,
- identify future partners, and
- find out about the innovative activities of competitors.



Intellectual Property Management and Open Innovation

Companies engaged in open innovation organize licensing activities and strategic alliances for a pro-active intellectual property strategy that aims at sharing technologies rather than hoarding IP as a defense mechanism.

Information and Knowledge are Fundamental



Challenges Facing SMEs in the Global Economy

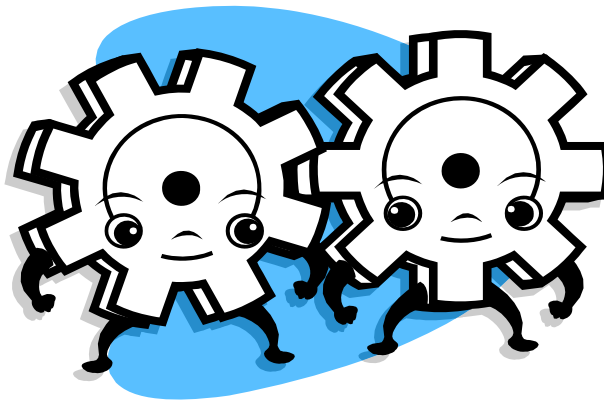
SMEs must recognize the value of IP as *information, a tool and an asset.*

Optimize IP management to sustain and foster growth.



Challenges Facing SMEs in the Global Economy

SMEs face larger risks because they often have fewer resources and limited expertise in IP issues. The effective management of IP is crucial for ***identifying useful knowledge and for capturing the value of a firm's IPR.***



Challenges Facing SMEs in the Global Economy

IPR enable SMEs to have exclusivity over the exploitation of their innovation.

Exclusivity confers control and creates an incentive for investment, collaborations, licensing and global strategy.



Challenges Facing SMEs in the Global Economy

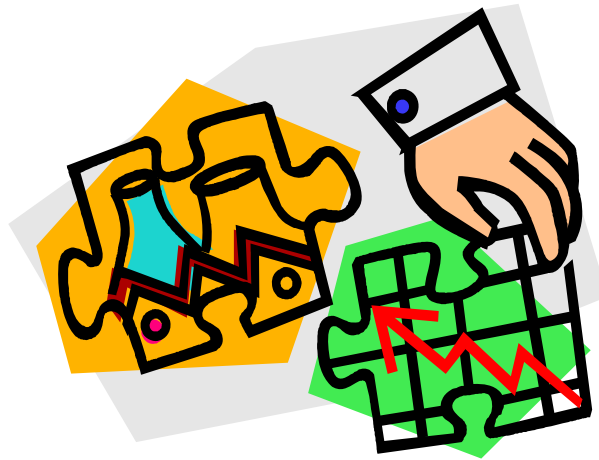
SMEs must recognize value of patent information; challenges include:

1. A lack of understanding of the use of patent information as a business tool;
2. How to access patent information;
3. Where to access patent information;
4. The level of expertise needed to be able to extract and apply the information;
5. Lack of appreciation of patent information as an enormous source of technical information.



Challenges Facing SMEs in the Global Economy

Hence, *major challenge for SMEs* is IP management, including the capacity to effectively access and manage and then exploit critical information.



The Necessity to Embrace Open Innovation

Globalization creates new market opportunities which require new innovation strategies. The response builds on technological progress and international trade, including global value chains, generating further acceleration of the internationalization of R&D and globalization.



The Necessity to Embrace Open Innovation

Open innovation can accelerate the internationalization of innovation in SMEs.

SMEs can connect to, develop and integrate global innovation networks.

Sourcing of knowledge and capacity across the globe, lowering transaction costs and advancing product development.



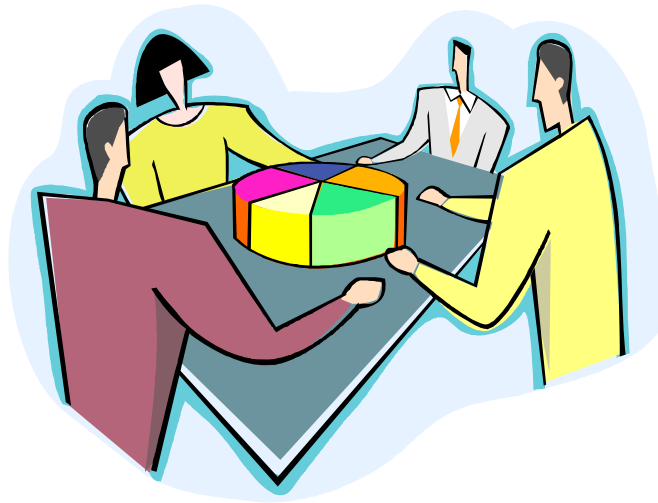
The Necessity to Embrace Open Innovation

For SMEs, open innovation will require more open IP management, licensing in from external parties to access complementary technology and also creating value by licensing unused technologies or by selling the patents. ***This network of transactions results in a win-win exchange, an open global marketplace for innovation.***



The Way Forward (Strategies, Tactics, Options)

Building a culture of open innovation requires reward by teamwork and organizational changes that ***foster internal and external collaboration***. This requires ***risk*** taking.



The Way Forward (Strategies, Tactics, Options)

Ecosystems of innovation link global innovation networks with people, institutions (universities, government agencies, etc.) and other companies in own or different countries to solve problems, source knowledge and generate ideas.



The Way Forward (Strategies, Tactics, Options)

Tactical Implementation:

- Bundle of IP Rights;
- Patent Pools;
- Non-assertion covenants;
- Field of use licensing strategy;
- In-Licensing of core technologies;
- Out-Licensing of peripheral technologies;
- Global PCT strategy;
- Join AUTM, LES, LinkedIn;
- Lead time advantage.



The Way Forward (Strategies, Tactics, Options)

Example:

PCT Global Strategy: A global patent filing program maximizes value and protects the integrity of an organization's patent portfolio. This requires knowledge, organization, and planning. The dynamics of the **international patent landscape** must be understood to identify competitors, licensees and partners.



The Way Forward (Strategies, Tactics, Options)

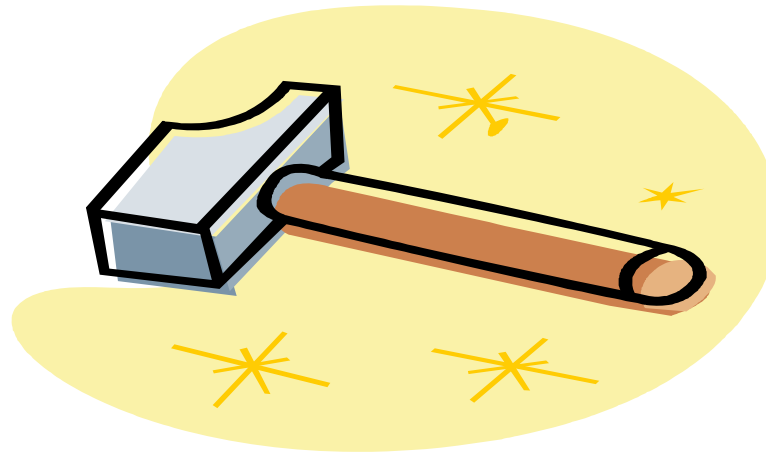
Example: Combining IPR from more than one organization. Synergy of IPR as both an *Asset and a Tool*

a “**silver hammer**” that must be combined with other IPR to realize value, via cross-licensing.



The Way Forward (Strategies, Tactics, Options)

IPR as both an *Asset and a Tool*, a silver hammer:



The Way Forward (Strategies, Tactics, Options)

IPR as both an *Asset and a Tool*, a silver hammer to combine with other SMEs IPR, a silver chisel:



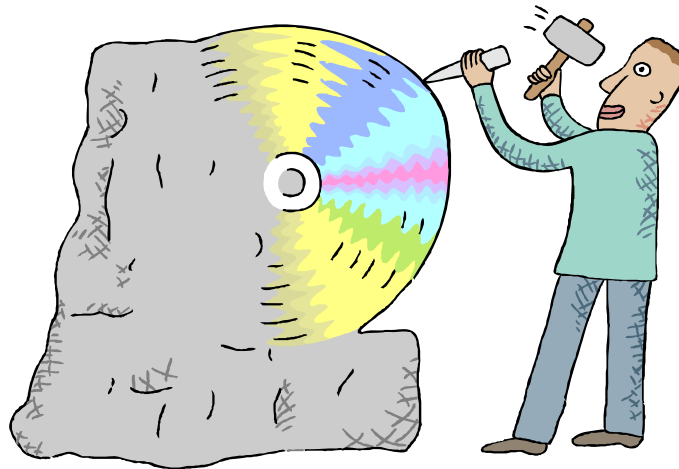
The Way Forward (Strategies, Tactics, Options)

IPR as both an *Asset and a Tool*, a silver hammer, and chisel, combined to drive innovation



The Way Forward (Strategies, Tactics, Options)

IPR as both an *Asset and a Tool*, for product development



The Way Forward (Strategies, Tactics, Options)

IPR as both an *Asset and a Tool*, to build value



The Way Forward (Strategies, Tactics, Options)

IPR as both an *Asset and a Tool*, something to think about!



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R&D and Innovation in SMEs

A joint Japan – EU seminar

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By Henry Chesbrough

