

SME's approach to IP protection

Informal IP protection and management



WIPO-ICC IP TRAINING WORKSHOP

Dr. Jari Kuusisto

September 15-16, 2008

GENEVA

Outline of the presentation

- **Background**
- **Key research results**
 - Variation across the industries
 - Use of IPR and informal methods
- **Informal IP protection and management methods**
 - Case examples of publishing
- **IP protection and innovation life-cycle**
- **Concluding comments**
- **Policy issues**

Background

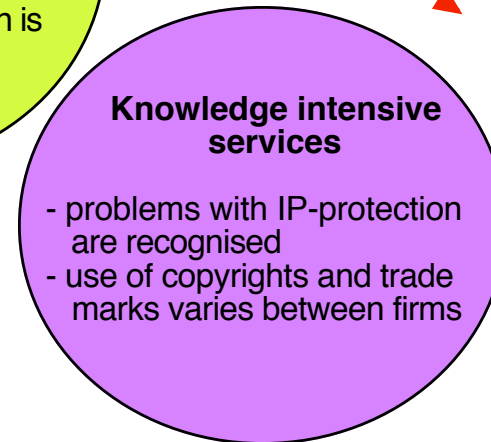
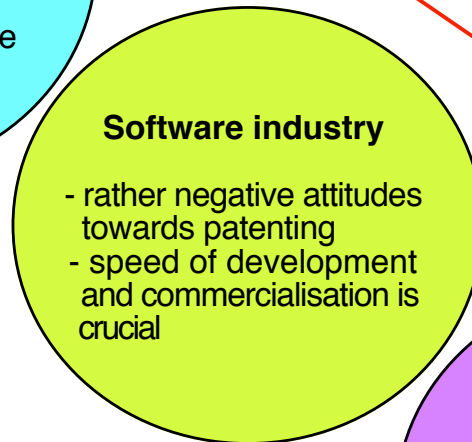
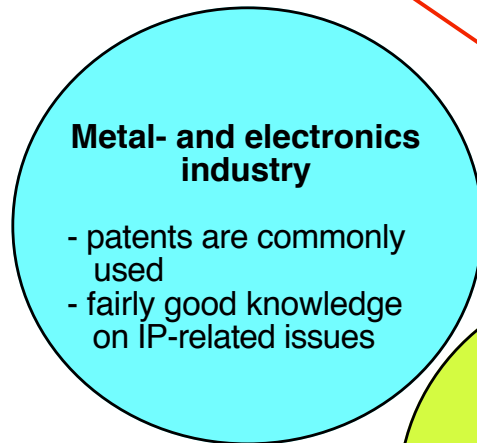
- **Report is based on an extensive research in the UK and Finland**
- ***‘Intellectual property initiative’***
 - **ESRC / UK Patent office research programme involving 11 research groups**
 - **‘Intellectual Property and Innovation Management in Small Firms’**
 - **The relevance of IPR system to the needs of small enterprises**
 - **Key finding: Importance of informal IP protection in SMEs**
- **Characteristics and the use of informal methods among the SMEs**
 - **SC-Research carried out 3 year research programme analysing 350 SMEs in the UK and Finland**
 - **Strengths and weaknesses of informal IP protection methods**

Key research results

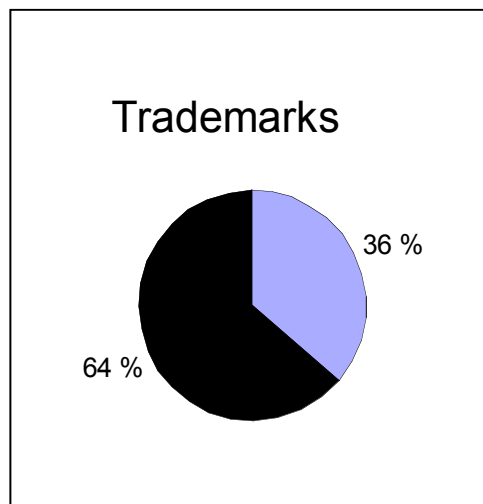
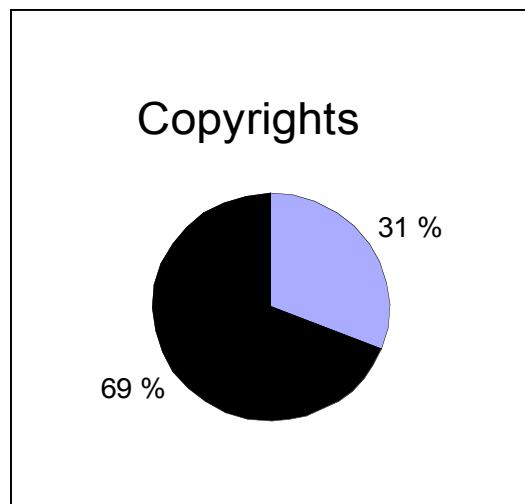
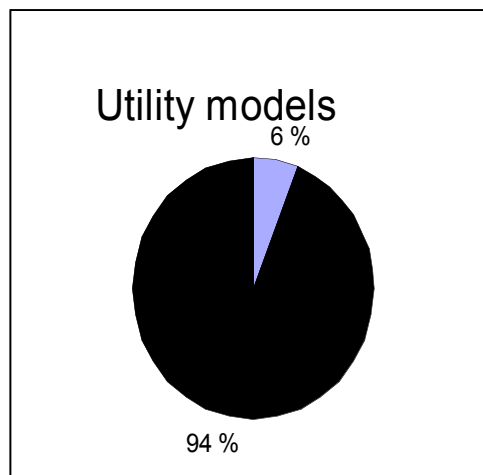
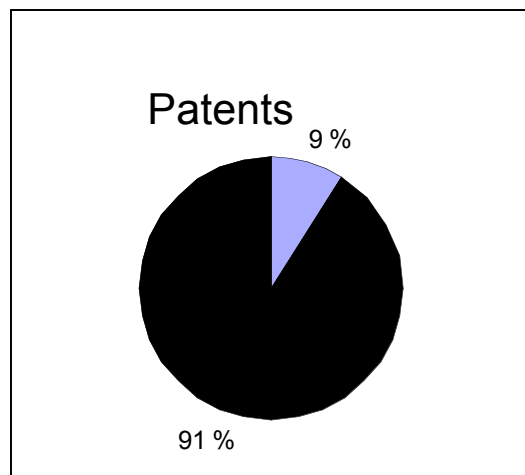
- **The way SMEs make use of the IPR system depends on the business sector where they operate and the size of the business**
- **For many SMEs the patent system has little or no relevance**
 - **At the same time many SMEs stress the importance of the R&D for the business**
- **For research-intensive sectors patenting is crucial**
 - **E.g. SMEs in biotechnology and electronic sectors**

Variation across the industries

Formal protection

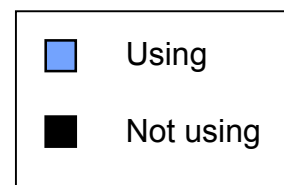


Adoption of formal IPR among KIBS

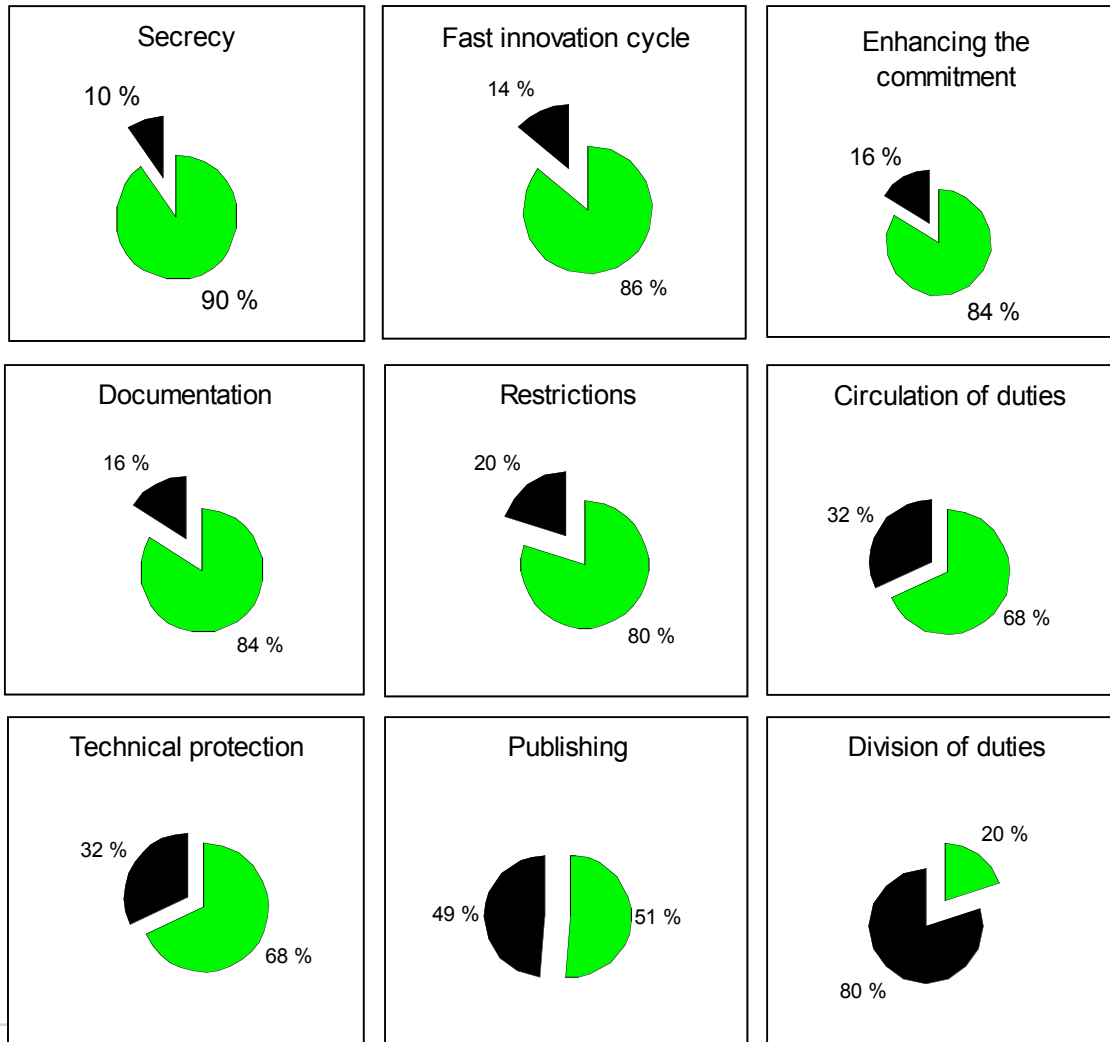


- Many SMEs have realised the value of their IP, and understand how to manage their assets

- Still the use of formal IPR methods that require registration is limited, especially in services business

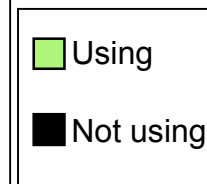


Use of informal IP protection practices

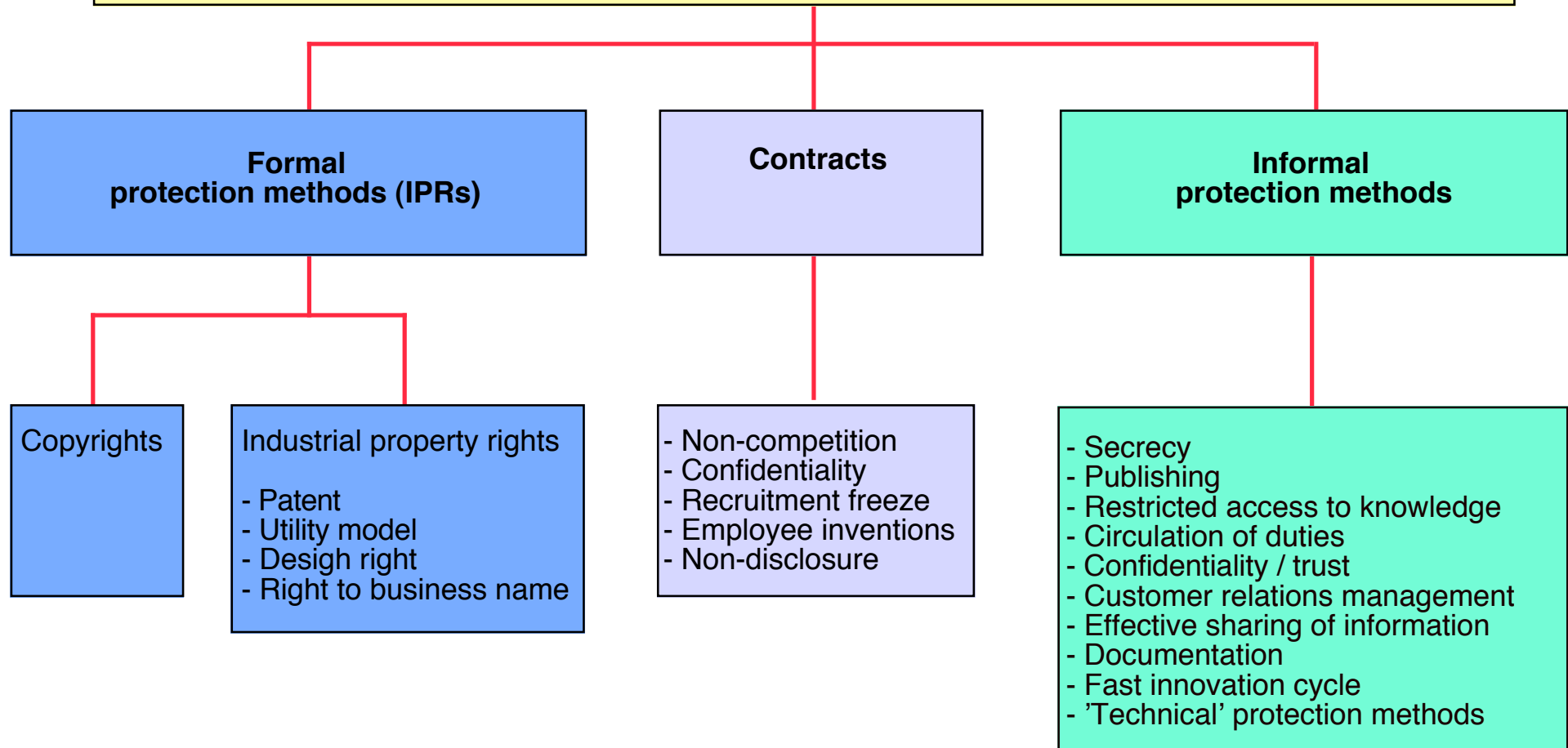


• **SMEs tend to prefer informal methods instead, and they are perceived as:**

- **Effective**
- **Cheaper, and**
- **Within the control of the company**



Knowledge protection and management methods



Contracts

- **Contracts are legally binding and flexible**
 - Parties can agree on many types of things between themselves
 - Can be difficult to enforce effectively without legal procedures
- **Non competition agreements covering**
 - Employees, business partners
 - Suppliers, sales channels, sub-contractors
- **Confidentiality**
 - NDAs with employees, customers, suppliers...
- **Recruitment freeze**
 - Can limit employees from working with the competitor for a certain period of time
- **Employee inventions**
 - Set of rules and principles for compensation and the ownership of inventions

Informal IP management and protection methods

- **Mostly informal methods are not legally binding**
- **They can be both proactive and restrictive**
 - **Limiting the flow of knowledge within the firm and out of the firm**
 - **Between the employees**
 - **Between employees - suppliers - clients etc.**
 - **Encouraging knowledge creation within the firm**
 - **Motivate and encourage employees to develop new innovations**
 - **Encourage long-term employment**

Secrecy

- **Key-knowledge can be kept secret from employees, suppliers, business partners or customers**
- **One of the most common informal protection methods**
- **May have negative impact on innovativeness**
 - **Need for knowledge sharing**
 - **Necessary and useful at the early stages of innovation life-cycle prior to the IPR protection**
 - **In the longer term secrecy tends not to be a very effective method - at some point secrets tend to leak to outsiders**

Publishing

- **New idea can be published as widely as possible and the initial developer of the idea will become well-known as the innovator**
- **Seeks to prevent un-authorized copying**
- **Very important protection method in the service sector**
 - For instance in advertising
- **Publishing can prevent others from claiming patents in the same area**
 - Publish the results of a biotechnology research in the local newspaper in Portugal

Defensive publishing - Case 1

- *'In an era of rapid change and heavy competition, does a company still have the time - and the money - to patent every innovation that comes along? Increasingly, innovative companies are finding a strategic alternative: defensive publishing'*
- **IBM**
 - Since 1982, IBM decided to switch from patenting to extensive publishing of its inventions, thus in the same time, preventing competitors patenting as well
 - *IBM Technical Disclosure Bulletin* has emerged as the single most cited source for prior art by the United States Patent and Trademark Office
- **Publishing websites**
 - Growing publishing platform

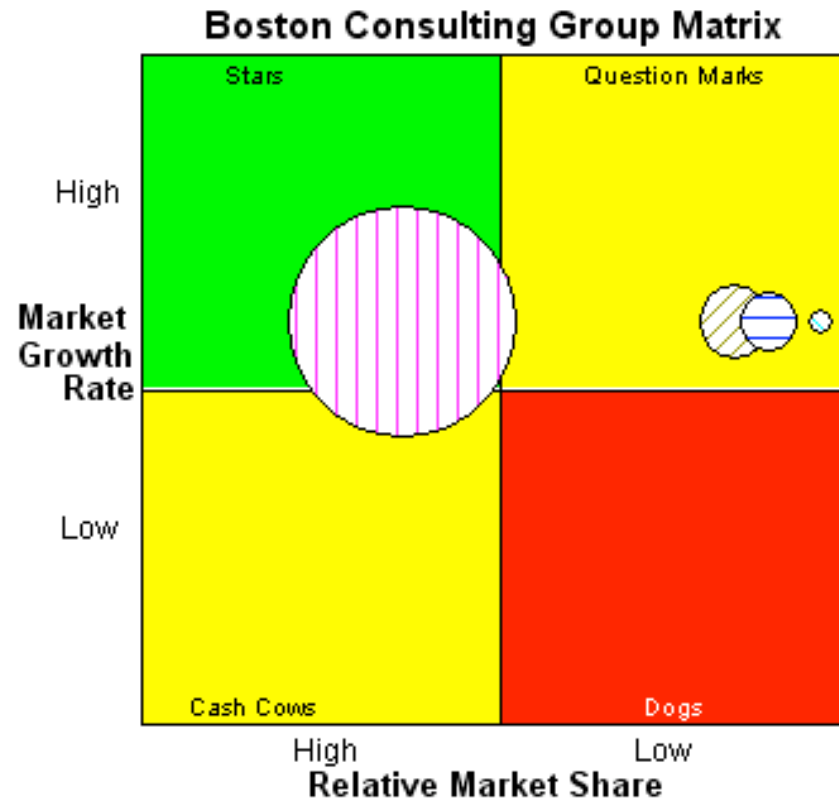
'Hidden' publishing - case 2

- A small Portuguese bio technology enterprise publishes its new invention in a local newspaper, in Portuguese language
 - Known competitors are highly unlikely to discover this information
 - Still, publishing can be used in blocking competitors patenting of the same invention



Boston Consulting Matrix - case 3

- **Consultancy firms regularly publish their concepts and tools**
 - The business community knows the origin of the new concept regardless who is using it
 - Earn 'dividends' via publicity & reputation



Restricted access to key knowledge

- **Restricting the number of people who have access to the sensitive key-information**
(employees, business partners, customers)
- **May lead into insufficient knowledge sharing**
 - **creates a barrier to innovativeness!**

Cultivating loyalty and commitment of the personnel

- **Seeks to establish long-term employment relations**
- **In many fields employees are considered the most valuable asset of the business**
- **Strategies to maintain staff loyalty include:**
 - Financial incentives
 - Training opportunities
 - Occupational development related incentives
 - Pleasant working environment
- **However, incentives given to individual employees may also harm the organisational climate**

Compartmentalising of work tasks

- **Work tasks can be divided between employees so, that each one controls and has knowledge only on a small fraction of the process**
 - Individual members of staff do not know the entire product, process or service concept
 - Minimises employee-related risks in the case of departure, or recruitment by the competitor
 - More suitable for larger organisations
 - In small firms compartmentalisation is not a natural tendency

Circulation of work tasks

- **Rotating staff between work tasks and making sure that at least two members of staff know each of the key work tasks**
 - Serves as a way to decrease dependence on individual members of staff
- **Can be problematic for very small businesses**
 - Comprehensive documentation may be an alternative approach

Documentation

- **Documentation of ideas and thoughts reduces the risk of losing key knowledge**
- **By documentation a business can transfer tacit knowledge into a more explicit forms**
(written documents, tapes, databases)
- **Should be carried out simultaneously with the evolving innovation**
- **Two dimensions:**
 - **Enables the effective sharing of knowledge**
 - **Reduces the risk of a sudden loss of IP in the case when a member of staff leaves the business**

Fast innovation cycle

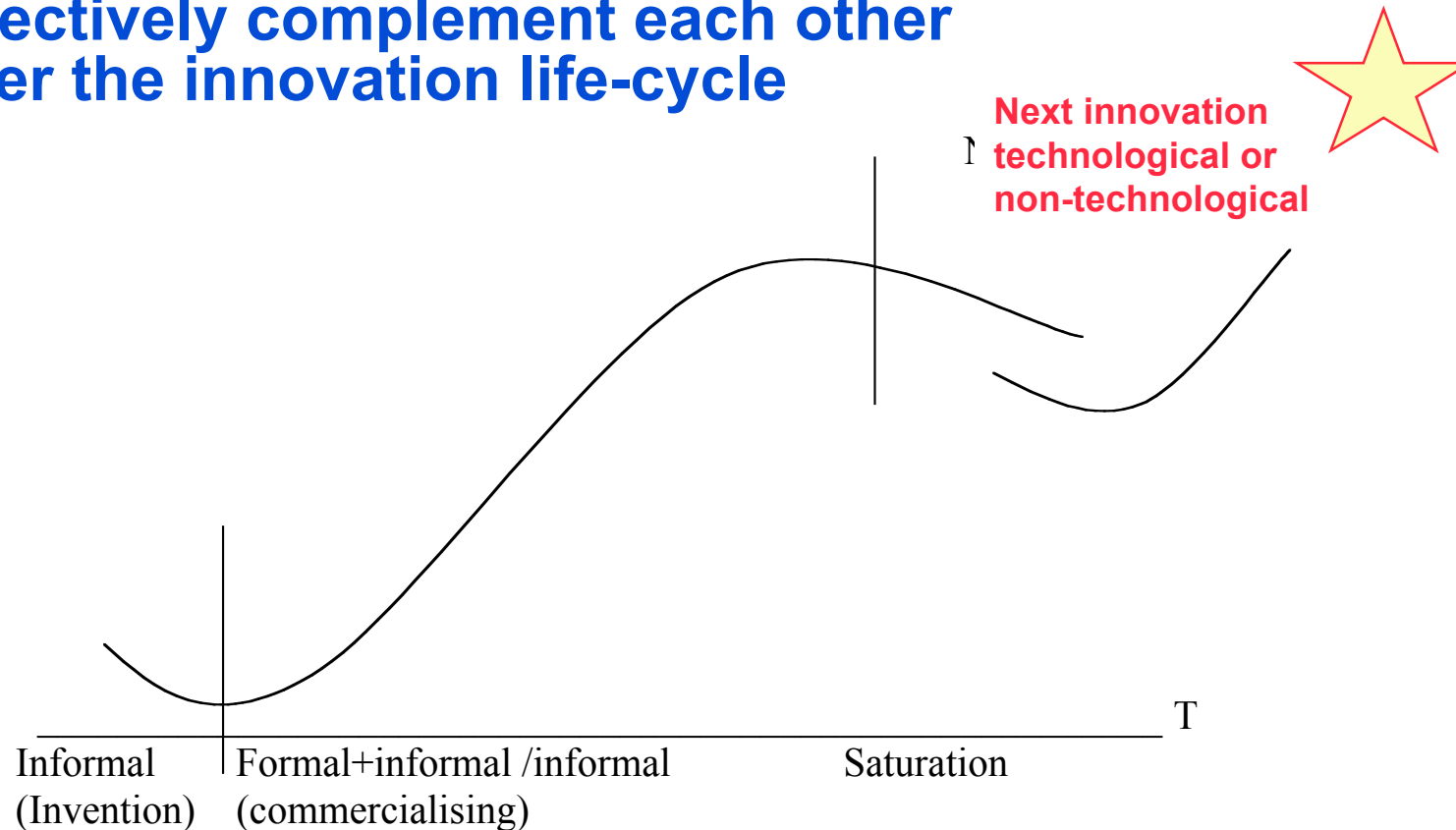
- **Maintaining the lead-time advantage**
- **Continuous flow of new or improved products can reduce the risk of harmful copying**
 - Has a significant role in fast developing businesses, e.g. in software industry
 - Fits well for small businesses due to their ability to respond quickly to the changing market demands

Technical protection

- **Provides large number of different instruments**
e.g. dongles = security keys embedded in software
- **Can also involve incorporation of specific identification codes e.g. in software programs, in photographs or other documents**
- **Also firewalls and passwords are widely used**

Innovation life-cycle and IP protection

- **IPR and informal IP protection can effectively complement each other over the innovation life-cycle**



Concluding comments

- **Intellectual property rights (IPRs) represent only a tip of the iceberg on the field of IP management and protection**
 - Yet, the research has almost fully focused on the formal IPR
 - IP related institutions focus on IPR
 - Also policy debate is very much centred around IPR
- **Knowledge economy and globalisation as drivers of change in IP protection practices**
 - Intangible knowledge is increasingly important ingredient of business success
 - Copying of intangibles can happen globally in a matter of minutes
 - Protection of intangible IP requires informal methods as well as IPR
- **Successful commercialisation requires sufficient attention to formal & informal IP protection**

Policy issues

- **There is a need to create awareness of informal IP protection within the business community**
 - SMEs and service sector as key target groups for practical advice
 - Informal IP protection manual and training DVD for SMEs
 - Linking IP services offer to the life-cycle of the business
 - More European research on the issue
- **Informal IP protection offers a new perspective**
 - It can be a challenge for existing institutions
 - At the same time it provides a good opportunity to improve the overall IP awareness and skills within the SME sector
 - Systematic utilization of informal IP protection can promote also the use of IPR system, 'first step'

Thank you for your attention!



jari.kuusisto@sci.fi