

Creativity, Innovation and Intellectual Property (LCMB7007)

Week - 3

AN INTRODUCTION TO INTELLECTUAL PROPERTY

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Issues to discuss...

- What is IP?
- Examples of IP in Industry
- Commercialising your IP
- Case Study – IP Spotting



Intellectual Property

- Patents
- Trade Marks
- Designs
- Copyright
- Confidential Information

- Reward research and development and prevent unauthorised exploitation of your rights
- Very important in competitive marketplace
- Is the road clear? – Even if you do not want to assert your own rights, you can still be in danger of infringing somebody else's



Why Secure IP Rights?

- Monopoly in marketplace
- Barriers to entry for competition
- Best return for expenditure

Intellectual Property

- Patents
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- Designs
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Patents - General

- Patents granted for ideas and inventions
- A state granted monopoly – lasts up to 20 years
- Rewards and encourages research and innovation
- Prevents unauthorised exploitation of ideas or inventions

- Patents are not granted merely by filing an application
- Application is examined by the Patent Authorities (Office)
- Strict requirements
 - Absolute Novelty – no prior public disclosure
 - Not an obvious solution to the problem the invention overcomes



Application Contains

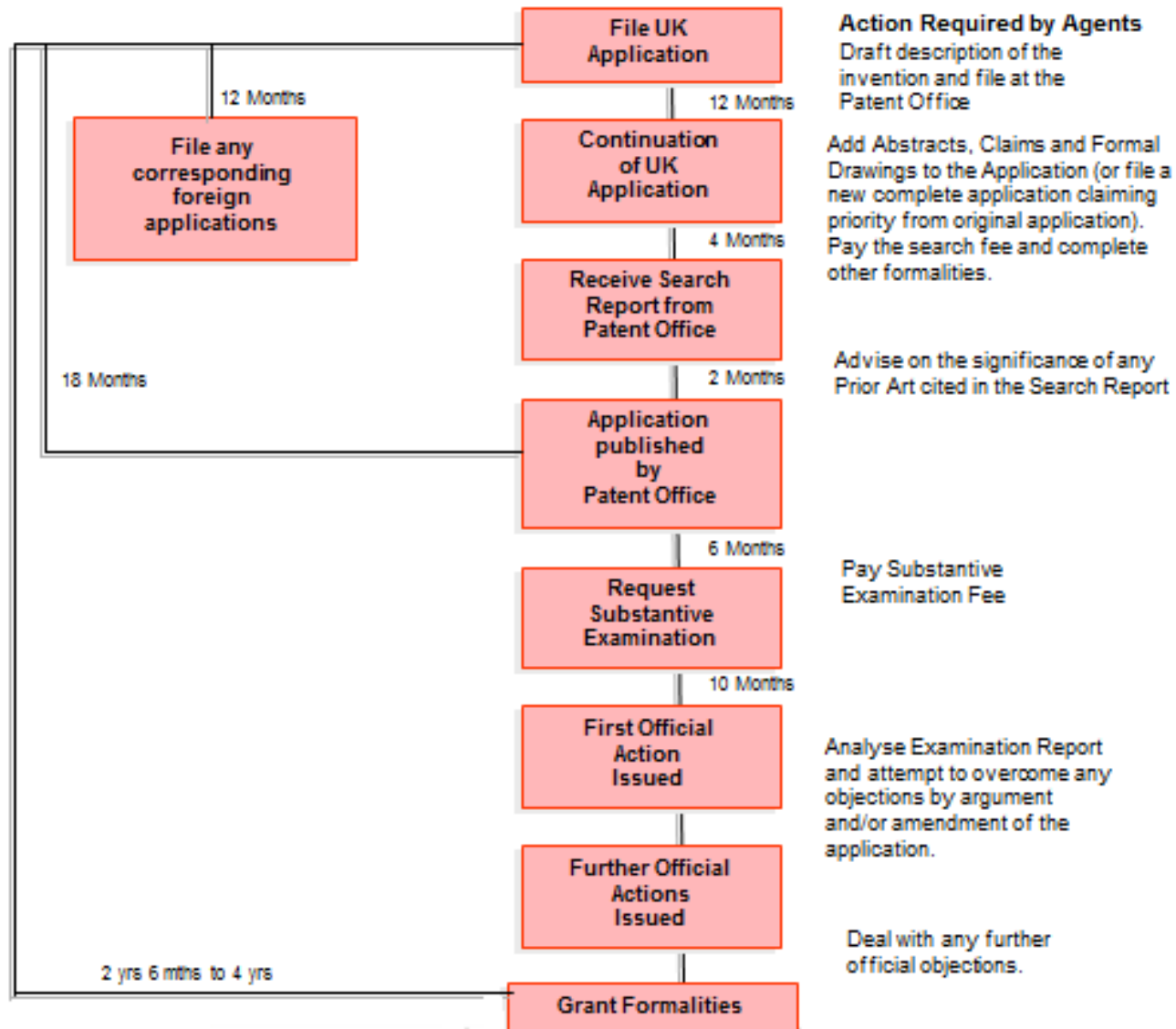
- Specification
- Claims
 - Application stage – sets out scope of protection sought
 - Granted patent – defines scope of enforceable protection

The Patent System: Comparison to Journal Articles

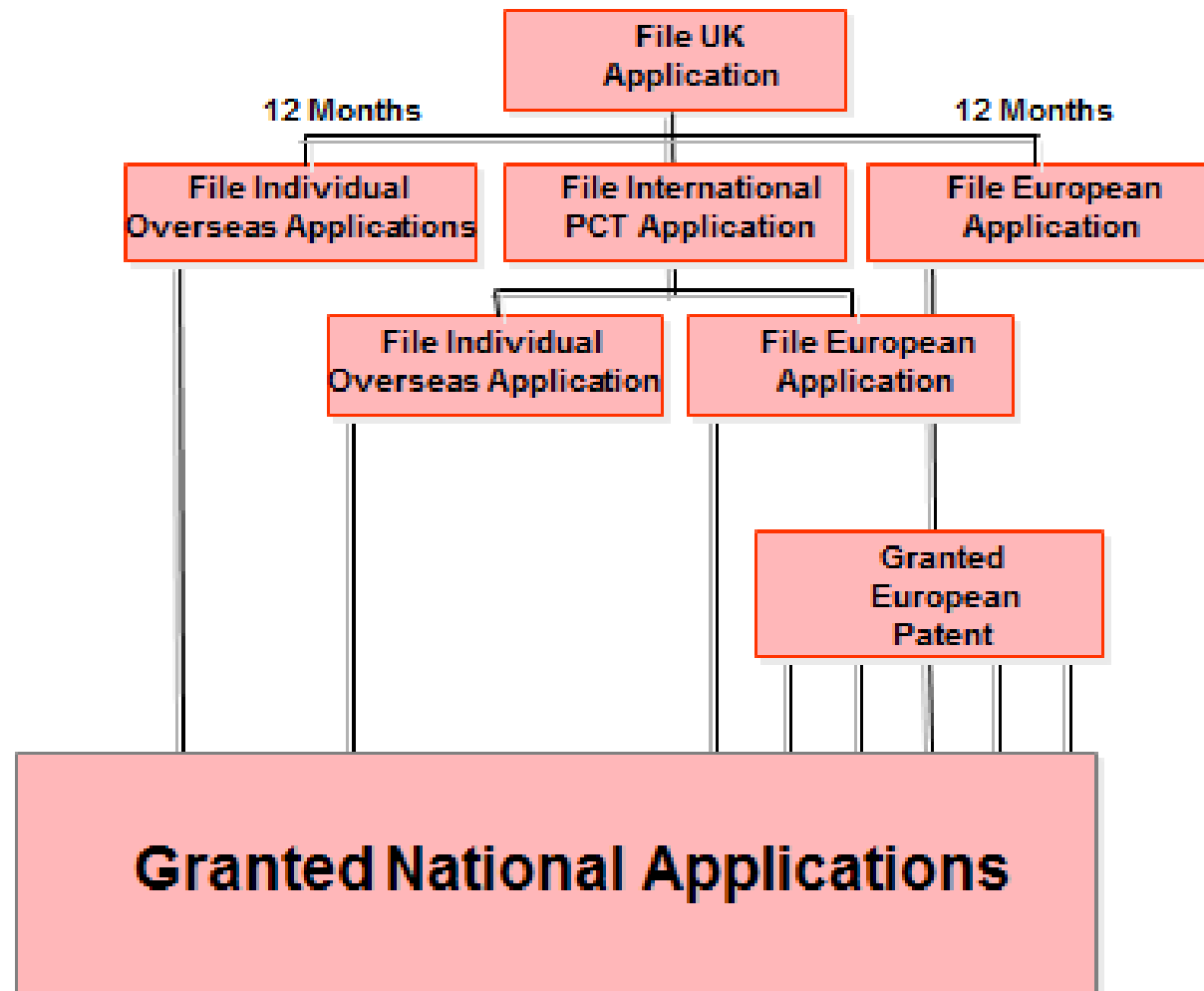
- Authority studies applications and decides if they qualify
- Authors must be given credit
- A literature search should be included
- A system of scientific priority
- Publication of new and original results
- Experiments novel and feasible
- Sufficient supporting data
- What is described should be repeatable
- Why the work is important

- **KEY DIFFERENCE.... “inventive step” requirement!!?**

Typical Timescale for a National UK Patent Application



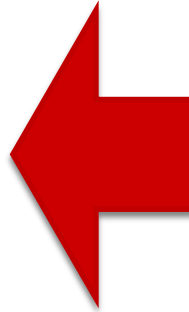
International Patent Application Procedure





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Trade Marks

- Trade Marks are used to distinguish products & services
- Any sign which is capable of distinguishing the goods and services of one trader from those of another
- Trade Mark can be:
 - Word
 - Logo
 - Sound
 - Smell

- Serves to establish goodwill and reputation in a product or service
- Adds value to a company
 - Guinness €2 Billion
 - Coca-Cola Interbrand Value \$79.1 Billion (€61.3 Billion)
- A good Trade Mark will be:
 - Not descriptive of product
 - Distinctive

The Coca-Cola logo is displayed in its iconic red script font, featuring a flowing, cursive design with a red outline.

Some Well Known Trade Marks

Barbie

Virgin



bp



Intellectual Property

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Registered designs

- Protects aesthetic appearance –
- not the underlying idea
- Can be registered or unregistered
- **Registered design**
 - Shape or appearance inc surface decoration
 - Max 25 years
- **Unregistered design “Design Right”**
 - For 3D articles only
 - 3D shape and appearance (not surface decoration)
 - Max 15 years



Apple iPad



Samsung Galaxy
Tab

Intellectual Property

- Patents
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Copyright

- **Copyright**
 - Automatically exists in original literary works
- **Copyright can exist in:**
 - Literary Works : life + 70 years
 - Musical Notation : life + 70 years
 - Graphic Works : life + 70 years
 - Sound Recordings : 50 years
 - Photographs : life + 70 years

Talk Outline

- Patents
- Trade Marks
- Designs
- Copyright
- Confidential Information 

Confidentiality

- Can protect company “know how”
- An alternative to patenting?
 - Retain the “secret step”
 - No public disclosure required
 - **But!** - No protection against independent creation by 3rd party
- The importance of NDAs (Non Disclosure Agreements)



Talk Outline

- What is IP?
- Examples of IP in Industry 
- Commercialising your IP
- Case Study – IP Spotting

- First product on market
- “Dual Cyclone” Bagless System
- Patents Obtained
- Patent Expired – June 2001 at end of 20 year term
-



- New product developed
- Improvement on existing technology
- Patents filed to secure 20 year monopoly term
- Product now lead product in range
- Much higher cost than original product
-



Confidentiality – Success Stories

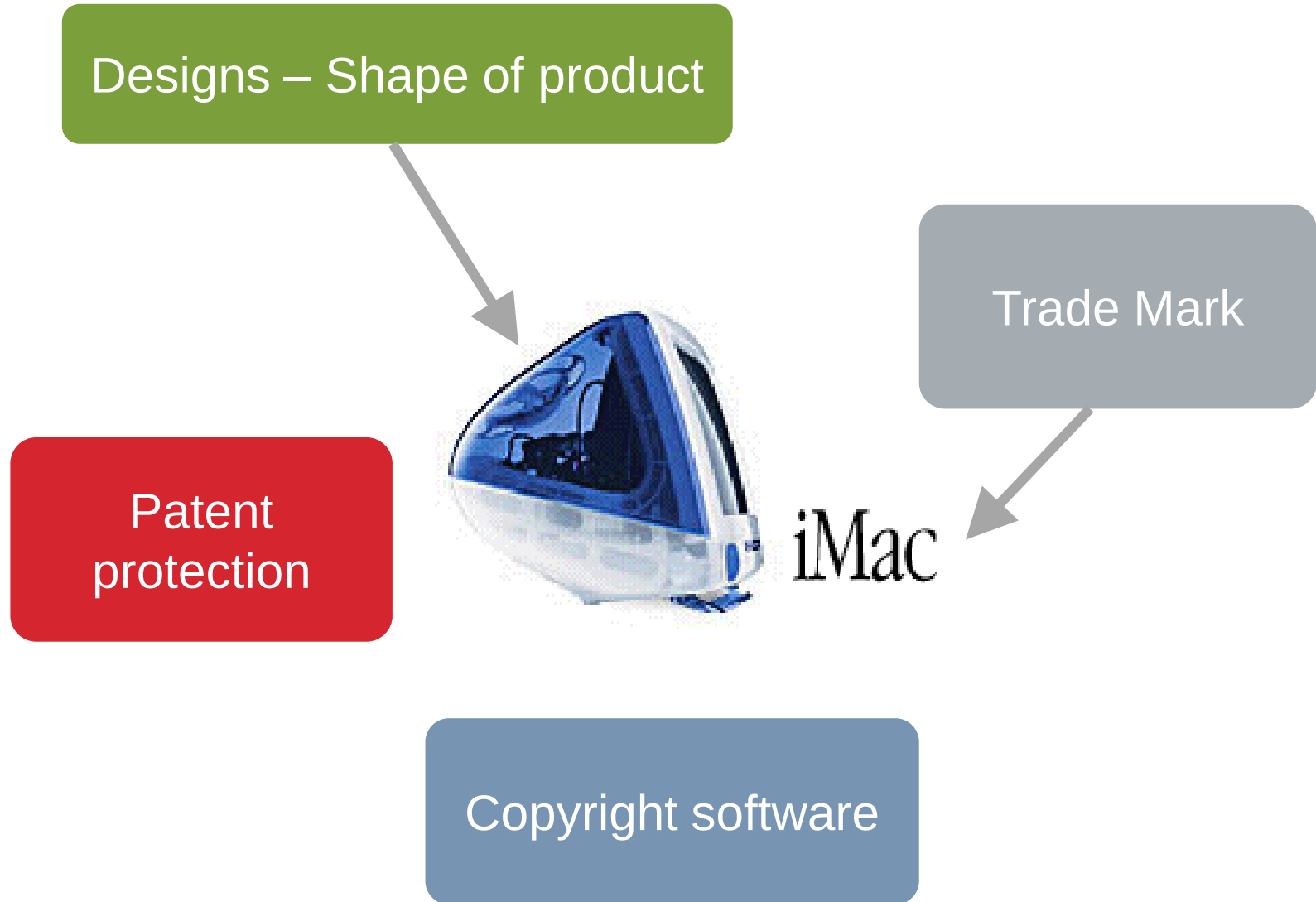


© The Drambuie Liqueur Company



© The Coca-Cola Company

IP in Action



- Antiviral treatment for cold sores launched in 1981
- Patent protection – Acyclovir – Expired 1997
- Generics entered market
- Launched as an over-the-counter brand
- Now market leader in Europe
- Trade mark – Zovirax
- Designs – Shape of container
-



Further issues...

- What is IP?
- Examples of IP in Industry
- Commercialising your IP 
- Case Study – IP Spotting

Exploiting your IP

- Keep idea confidential – a patent application can only be filed if the invention is new and has not been publicly disclosed
- Consult with Research and Innovation service within University for commercialisation advice

Spin Out Companies

- IP initially owned by University
- Commercialisation of technology by a separate company
- Often ownership of IP may or may not be assigned to spin out
- Agreements very important in this situation

Talk Outline

- What is IP?
- Examples of IP in Industry
- Commercialising your IP
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Case Study Task

- Identify the IP assets that Medivate currently own, if any, and also consider;
- IP areas of interest
- Which of these will need to be registered for protection
- Any additional issues which need to be considered

Case Study

- Medivate a new university spin out company has identified and produced a new medical device useful in diagnosing TB
- Currently only a prototype device is up and running, the company needs to obtaining further external funding to bring their product to market
- Medivate have been advised that the first step in obtaining further funding is to identify and secure its IP position



TM: The Product

- A new small TB diagnosis product for use in GP surgeries
 - The “NuVu” scanner



TM3 The Product

- The NuVu scanner utilises a piezoelectric crystal containing wand to detect a low level frequency vibration emitted from a metal plate positioned under a patient;
- where a patient is infected by TB causing bacteria the low level vibrations are absorbed by the tubercule lesions in the lungs
- the piezoelectric crystal does not produce electrons - the presence of TB is detected by the negative response

Company Staff

- The 2 founding members of staff were researching the utility of naturally occurring quartz piezoelectric crystals as post-doc researchers at their University, where the crystal used in the nuvu scanner was identified
- A senior member of the university lecturer staff is involved as a consultant and sounding board
- An MSc student designed the computer software involved in transferring the electronic energy received into a simple image displayed on a PC

Background Information

- TB was identified by the WHO as a global problem back in 1994, and reached its highest infection level in recent times in the last official statistics for 2005.
- The spread of TB is a particular problem in crowded, closed environments e.g. prisons
- The regions where TB is most prevalent include Africa and South East Asia and the Asia Pacific Ring

Product Design

- Medivate intends to copy the external design of a well known ultrasound product
- Initial enquires have shown it's most cost effective to have the finished product toll manufactured in China
- Medivate would like to demonstrate a finished product at an International medical device fair in March 2015





Operating the NuVu

- The alignment of the crystal detector and the metal vibration plate is very important to obtain accurate identification of a TB infection, to address this matter Medivate intend to;
- commission a design company to device an operating manual to accompany each NuVu device sold
- provide a service whereby they install the NuVu device in a surgery and train staff how to use the device and interpret data results

TM: The Name

- The company staff don't know of any other medical products with the name NuVu, however;



- The "Nu-Vu" baking machine exists and
- is owned by a US commercial catering company

- The "nuvu" projection screen also
- exists; the company which marketed
- the product has now ceased trading

