



Protect or Perish

The Australian National University
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Summary

- Role of IP in the knowledge economy
- Why patent?
- What's patentable? (I can get a patent for that?)
- Patents 101 – patent requirements
- Compatability of patents & publications
- Protect and not perish
- Case study
- Strategic IP generation

IP – Perish Proof?

Role of IP in the Knowledge Economy

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IP – What is it?

- Tangible representation of intellect & creativity
 - Inventions, designs, trade marks, copyright, plant varieties, know how
- Registered rights: patents, designs, trade marks, plant breeders rights
- Non-registered rights: copyright, trade secrets

IP – a competitive advantage ?

- IP is how competitive advantage is sustained in the information economy
 - Other barriers are falling away as trade is freed, labour is more mobile, and customers have more access to information

IP – a currency of trade?

- IP is increasingly tradeable in its own right
 - As businesses move away from in-house R&D towards outsourcing and in-licensing
 - Great opportunity for university research
 - A currency of trade when rights clash

IP – creates and adds value?

- Inhibits competition against an organisation's existing products.
- May be an organisations most valuable asset.
- Helps extract value from technologies not used in products sold directly.
- Allows technologies to be acquired with some assurance of value
- Codifies the company's knowledge both internally and to investors

Patents – “Why bother ...”?

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Why patent?

Patents provide:

- Opportunity to prevent third parties using your technology
- Opportunity to prevent third parties from excluding you from your technology
- Generate revenue
 - Assignment (sale)
 - Licensing
 - Joint ventures

Why patent?

Cost of research is high

- Pharma - US\$ 800 million from bench to market
- Potential returns are linked to market exclusivity
 - Patent provides an incentive for innovation, without which industry would be unwilling to invest time and money in R&D.

Why patent?

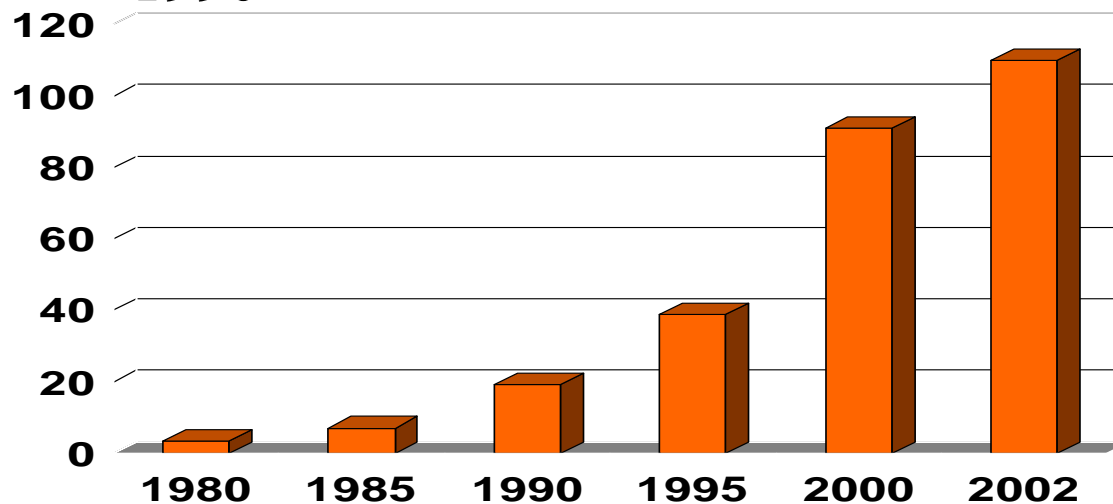
Patents cover more than they did 15 years ago

- Software
- Business methods
- Medical devices
- Biotechnology – microorganisms, genes, antibodies, processes, etc.
- Most discoveries with a technical application

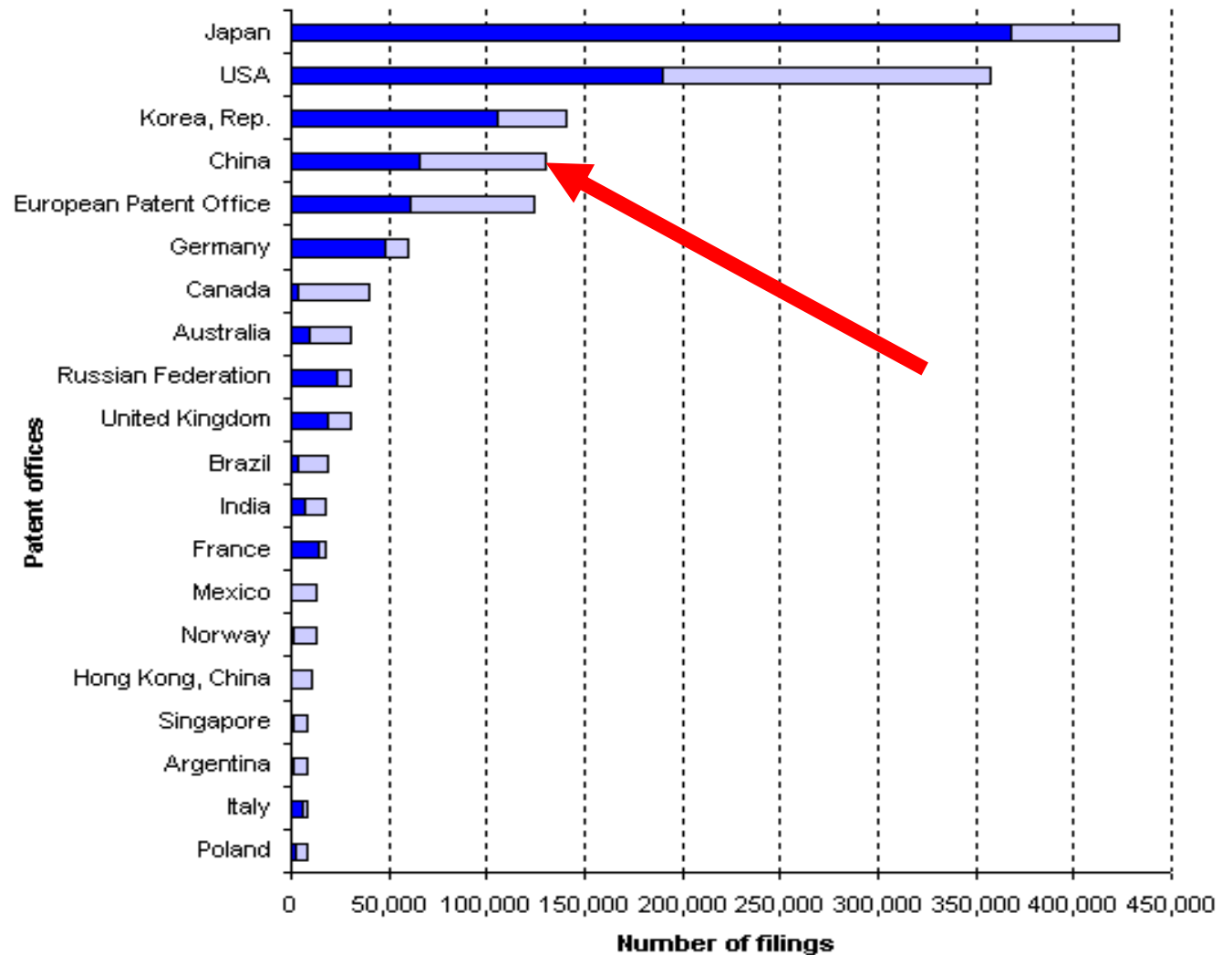
Why patent?

There's more IP around

- Worldwide patent applications have more than quadrupled from 1.7 million to 7 million since 1990

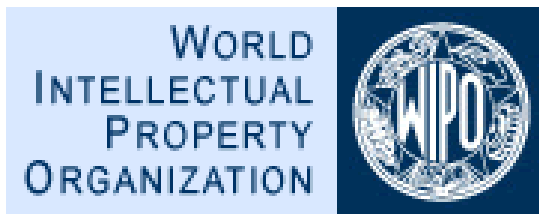


Patent Appls Filed by Country 2004



■ Number of Resident Patent Applications filed
 □ Number of Non Resident Patent Applications filed

Source: WIPO Statistics Database



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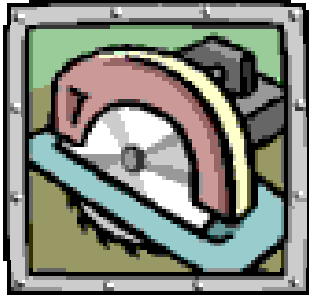
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**I can get a patent
for that ...?!**

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What Is a Patent?



An important *strategic tool* for business.

Not just a cost, but an investment!

This commercial, business tool *gives the patent owner the legal right to exclude others from exploiting an invention without the permission of the owner.*

What Is a Patent?

- A patent is a temporary monopoly in a technological innovation granted to the patentee.
- Patents provide the right **to exclude** others from exploiting the invention.
- 18 months after filing a patent application it becomes open for public inspection.
- A 20 year monopoly is provided in exchange for a detailed description of the invention claimed.

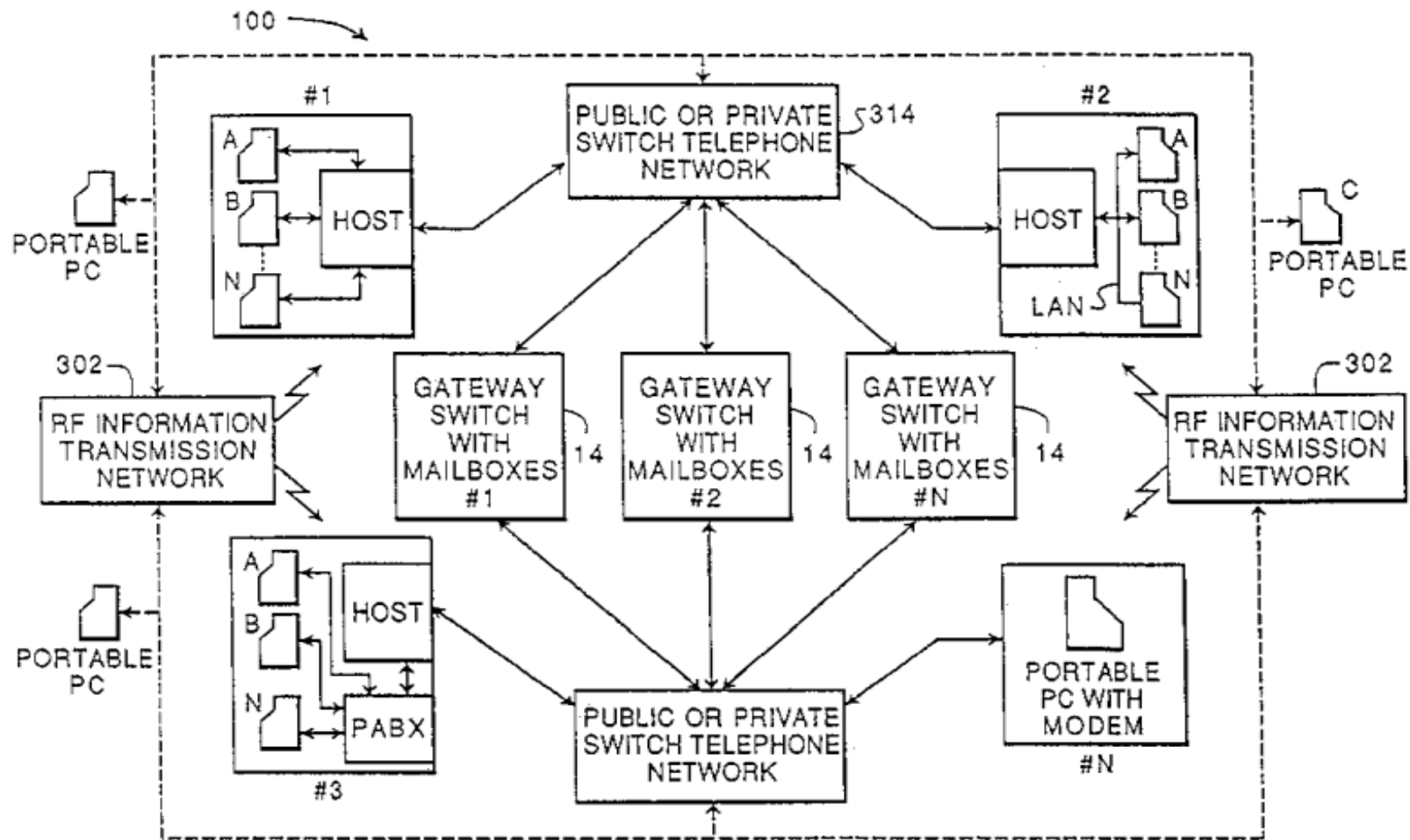
Patentability

What is patentable? Not everything, but nearly everything!

- US: “Anything under the sun that is made by man”.
- An “artificially created state of affairs” in a “field of economic endeavour”.
 - (*NRDC v Commissioner of Patents*)
- Includes methods of medically treating humans.
 - (*Bristol-Myers v Faulding 2000*)

US Pat No 6,317,592

Electronic mail system with RF communications to mobile processors



NTP
v
RIM

Patent Trolls



“Patent keeps BlackBerry in a jam”

“BlackBerry saved”

“Apocalypse Averted”

“Settlement hits BlackBerry earnings”

“RIM pays NTP \$612.5 million”



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“Anything Under the Sun...”

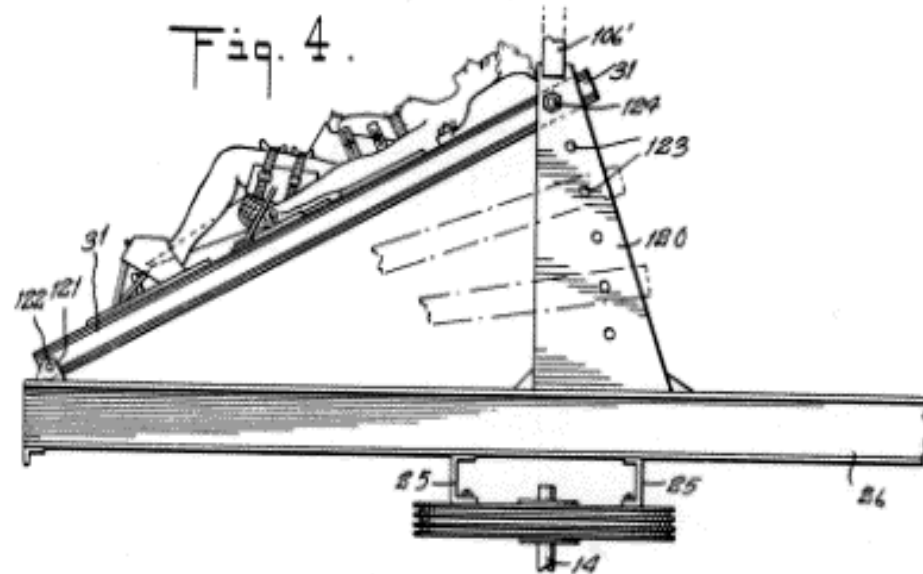
Nov. 9, 1965

G. B. BLONSKY ET AL
APPARATUS FOR FACILITATING THE BIRTH OF
A CHILD BY CENTRIFUGAL FORCE

3,216,423

Filed Jan. 15, 1963

4 Sheets-Sheet 4



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What are Patents Granted For?

Routinely:

- Machines, devices, hardware
- Processes, techniques, methods
- Materials, chemicals, drugs, alloys

Not Always:

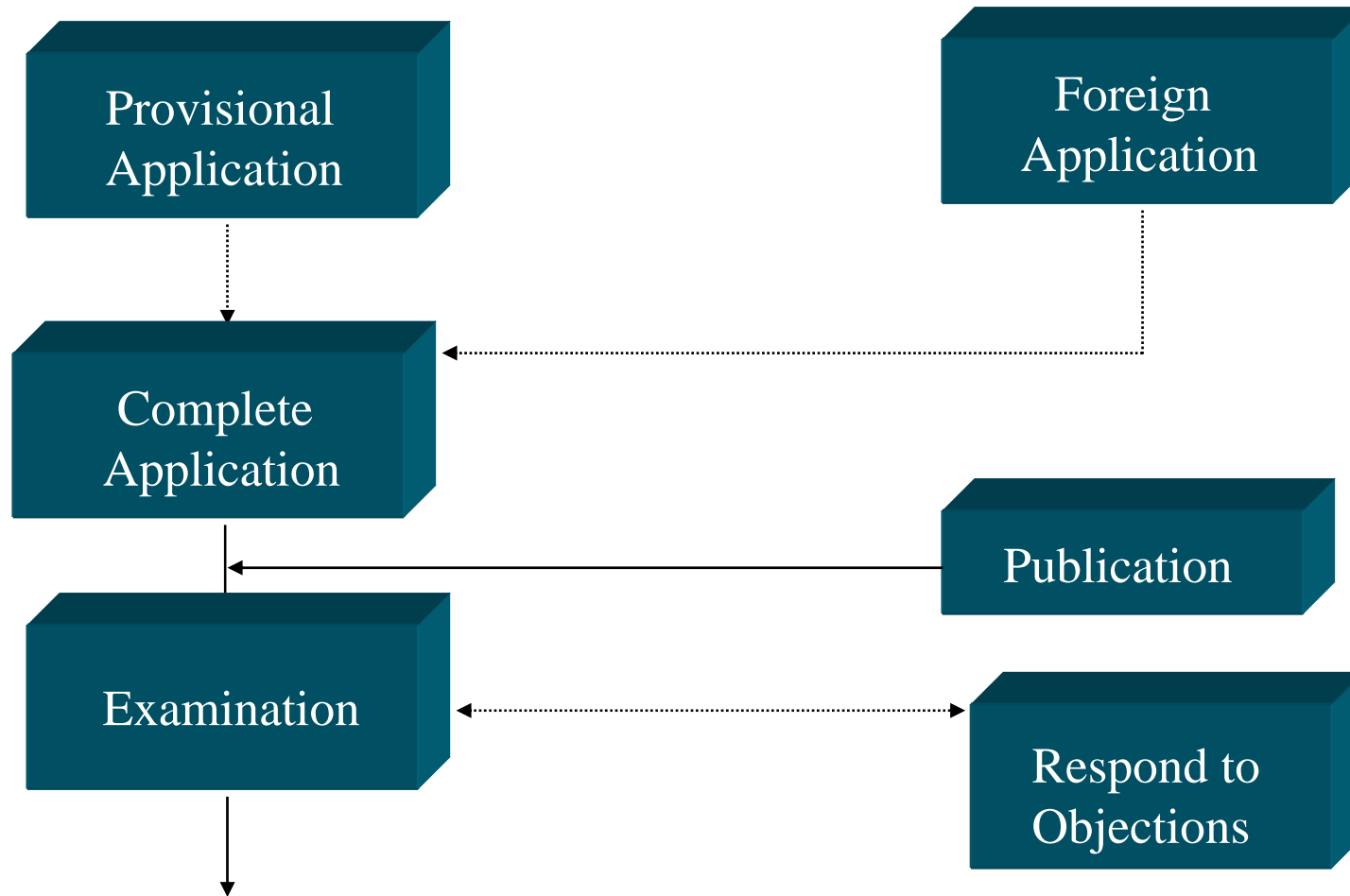
- Medical treatments
- Software
- Business methods
- Gene sequences
- Proteins
- Higher animals

Patents 101

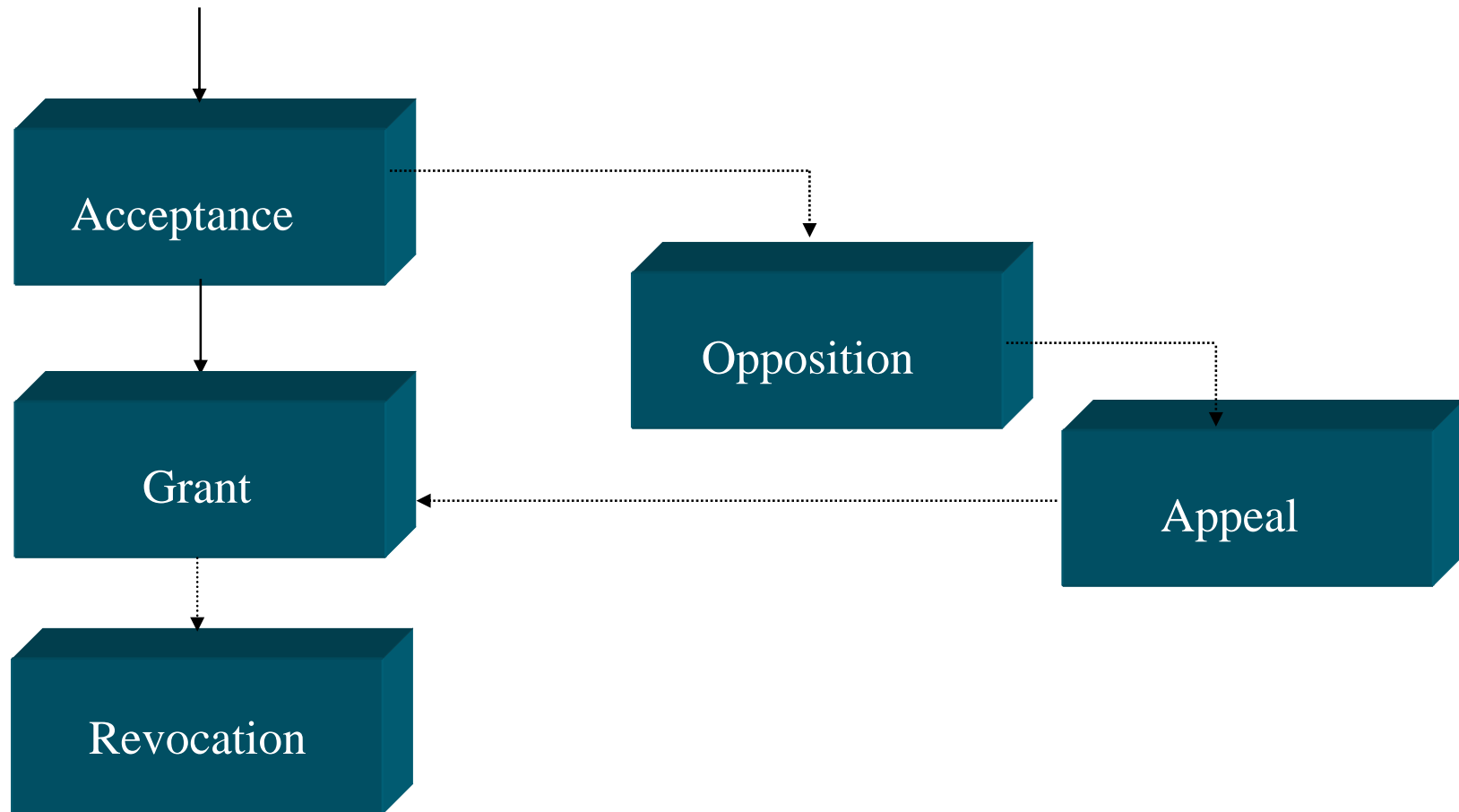
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Australian Patent Procedure



Australian Patent Procedure cont.



Requirements for a Valid Patent

- Patentable subject matter
 - Novelty
 - Inventive step
 - Invention must be useful
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- Full description of the invention
 - Best mode
 - Claims defining the invention

INVENTION

PATENT

SPECIFICATION

Novelty

- Absolute novelty
 - No prior publication anywhere
 - No use/disclosure anywhere
- 1 year grace period
- Different novelty standards in other jurisdictions
 - US – modified form of relative novelty
 - Europe & Japan - absolute novelty
 - New Zealand - local novelty

Inventive Step

- Determined in light of “common general knowledge”, or one or more publications read in the light of the “common general knowledge”
- Common general knowledge - “that which is known or used by those in the relevant trade”

Novelty & Inventive Step

What to Avoid

Prior to filing a patent avoid:

- Sending title, abstract, or copy of a relevant paper for presentation at a conference
- Presenting relevant paper/poster at conference
- Publishing relevant paper in a journal or elsewhere
- Depositing a student thesis in university library without restricted classification
- Selling or licensing invention prior to filing a patent application, even under a confidentiality agreement

Fall Back – Grace Period

- Australia now has a 12 month grace period
 - Self disclosure only
- Must file complete application within 12 months of disclosure
- **NOT A SOLUTION** – not all countries have a grace period
 - eg. Europe!

Patents and Publications — Compatible?

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Patents & Publications

- Many scientists throughout the world file patents and also publish widely in scientific journals
- Patents and publishing are NOT incompatible PROVIDED timing of the publication does not destroy the novelty and inventive step of an invention
- It is simply a matter of WHEN it is appropriate to publish an invention if you are contemplating filing for a patent application
- In essence DO NOT prior publish your invention if you are contemplating filing for a patent application

Protect and Not Perish

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But how ...?

- IP awareness
- Capturing invention
- IP landscape
 - Prior art searching
- When to file?
- When to publish?

IP awareness

- Understanding of IP issues by all staff
 - Implications of publication
 - Implications of sale or offer for sale
 - Education as to what is patentable
 - Review and approval of all proposed publications prior to submission for publication
 - Include incentives - inventors share in financial return
 - Foster a culture that places high level of importance on development, maintenance and advancement of the organisation's IP rights

Capture invention

- IP issues built into administrative processes
 - Regular IP audits
 - Interviews with key personnel
- Departmental publication review
- Early involvement of ANU Office of Commercialisation at early stage of R&D

IP Landscape – prior art search

- IP position of third parties
 - Determines potential scope of invention
- Assists in drafting the patent application

When to file ?

- Generally, appropriate to file a patent application as early as possible, thereby minimising:
 - Possibility of others publishing detrimental prior art
 - Possibility of others filing a patent application having an earlier priority date
- However, filing too early can be problematic

When to Publish ?

- Even after first patent filing, publication or public use of invention can adversely affect patentability of claims having a later priority date
- Opportunity still available to file further provisional applications in first 12 months and claim priority from them
- In perfect world, publication or public use not advisable in 12 months after first patent application is filed

Balanced publication policy

- Recommendation not to publish in priority year
 - Extreme – do not publish until patent published (18 month)
- May not be realistic in academic environment?
 - Ensure basic (provisional) application is at least commensurate in scope with technical publication
 - File multiple basic (provisional) applications in advance of publications of invention development/modification

Case Study

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Case Study: Protect or Perish

- First patent application filed by Dr Tronzo disclosing a hip replacement socket (prosthesis) having a particular overall shape (oval).
- Dr Tronzo's patent application published.
- Further socket shapes identified after first filing and further continuation application filed based on original disclosure and adding new shapes
- Patent on continuation proceeded to grant - claims to prosthesis not limited to any particular shape.

Case Study: Protect or Perish (cont.)

- Some years later infringement were instigated with favorable damages award to Dr Tronzo (US\$30 million).
- On appeal, Court held that claims were not entitled to earliest priority date, claims not limited in shape (or including non-oval shapes) only present in continuation application, not first application.
- Patent for continuation held invalid. Lacked novelty and nonobviousness in light of publication of Dr Tronzo's first application in UK.

Strategic IP Don't Protect and Still Perish?!

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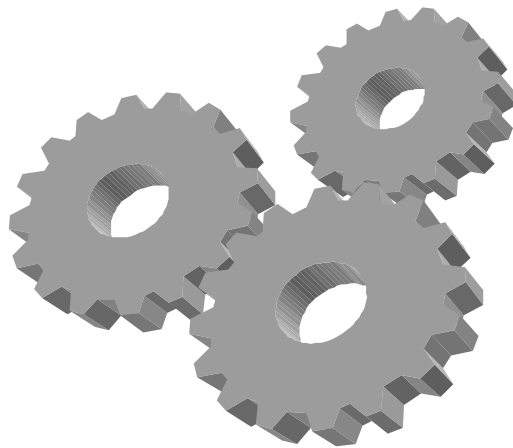
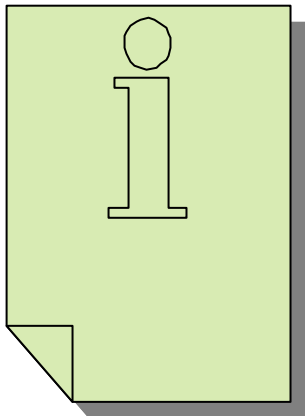
What should inventors do?

Keep detailed records - lab notebooks.

Keep innovation secret!

Assist IP manager & patent attorney.

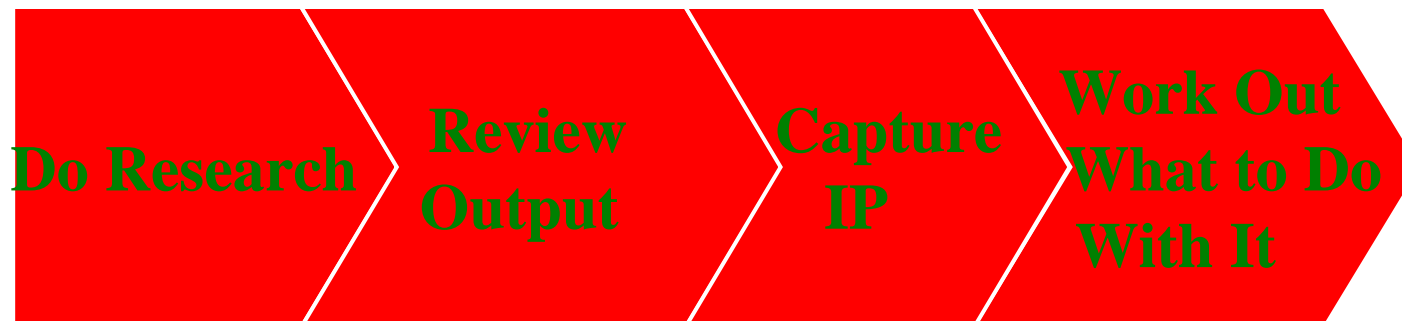
File (& prosecute) high quality patent application ASAP.



IP strategic alignment

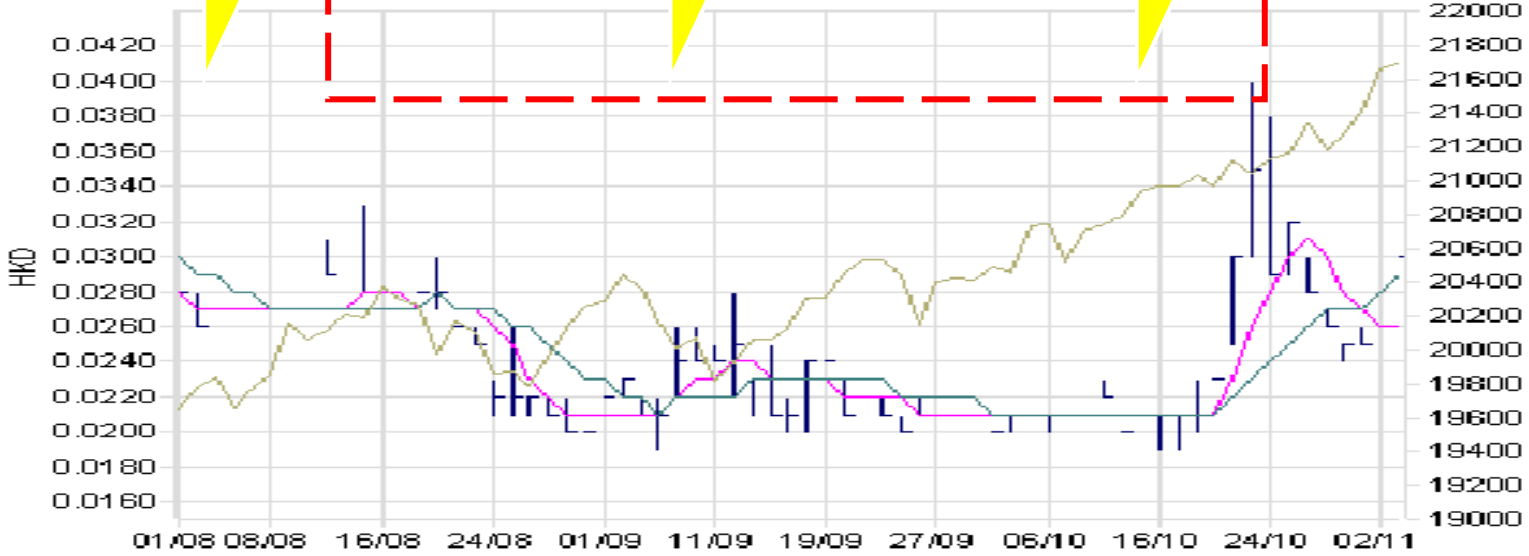
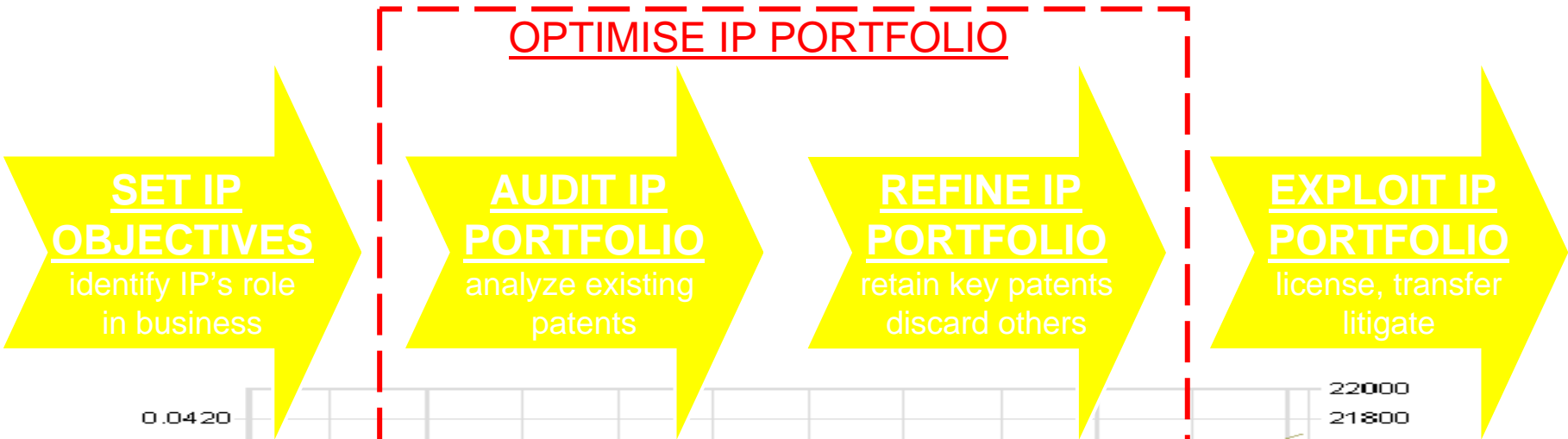


Planned



Ad Hoc

Add value to organisation



High value patent

- Broad exclusivity
- Freedom to operate
- Good territorial coverage
 - US, Europe, Japan, China, ...
- Best possible filing

Quality patent applications

- Put effort into 1st patent filing – patent rights are never better than 1st patent document (pennywise, pound foolish).
- Filter prior art and identify disadvantages.
- Choose most appropriate terminology for claims, description, & searching.

Alignment: IP Nirvana

- Technology and market are understood
- Commercial strategy is agreed
- IP landscape is identified and analysed
- Required IP portfolio is defined
- R&D is planned so as to create the IP portfolio required to achieve the strategy, having regard to the IP landscape



Questions?

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