

WRAYS



Introduction to Intellectual Property

Future Energy Exports CRC, 22 June 2021

Overview

- Introduction to IP
 - Patents
- Ownership
- Identifying IP
- Capturing IP
- IP Strategy



Questions via Chat box
Slides to be circulated

Introduction to IP

Proactive vs Reactive



Proactive IP management can help to avoid lost opportunities, prevent wasting resources and help identify new opportunities

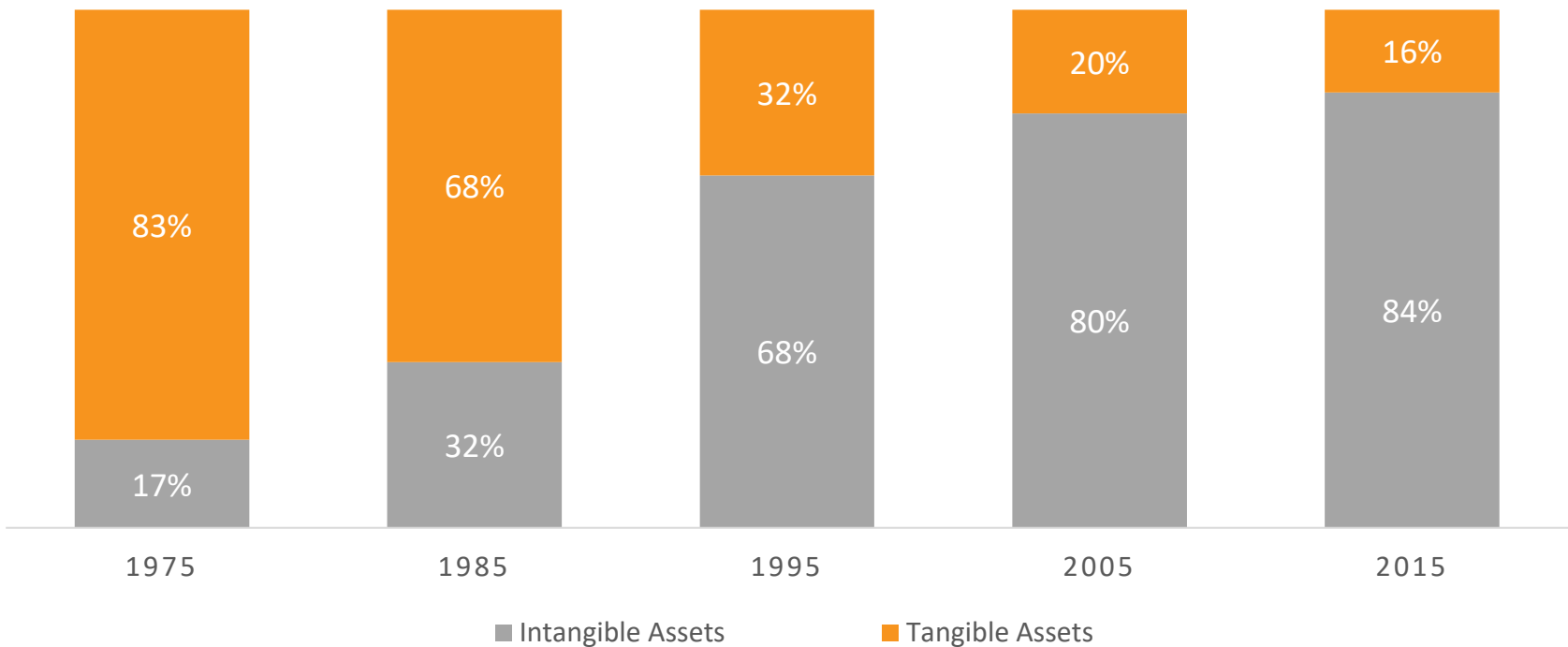
What is IP?

- Inventions
- Concepts
- Data
- Processes
- Documents
- Trade Secrets
- Pictures
- Drawings
- Software
- Know-how
- Product Design
- Control Strategies
- Product Labelling
- Reports
- Branding
- Programs
- Trade Names
- Results
- Logos
- Ideas
- Confidential Information



Tangible vs. Intangible Assets

Components of S&P 500 Market Value



Source: Ocean Tomo, LLC

Joe is about to buy a new BMW...

Appearance may be protected by a **Registered Design**

BMW technologies will be protected by **Patents**

BMW is a **licensee** for third party technologies

BMW would have used **trade secrets** to design or manufacture car

Computer systems would include software protected by **copyright**

Joe could research his purchase on websites with BMW **domain names**

BMW and its various sub-brands will be protected as **Trade Marks**

BMW would have collaborated with third parties on aspects of R&D, requiring **IP ownership agreements**



Registered v Unregistered

Registered IP

- Patents
- Registered Trade Marks
- Registered Designs
- Plant Breeders Rights

REQUIRE ACTIVE MEASURES
TO PROTECT

Unregistered IP

- Copyright
- Confidential Information
- Trade Secrets
- Know-how
- Circuit Layouts
- Unregistered Trade Marks
- Goodwill

EXIST AUTOMATICALLY ON
CREATION

Patent

Fixed term monopoly to protect an invention
(product or process)

- Invention must be novel, inventive and useful
- Can't be an abstract idea or a law of nature
- Up to 20 years' protection
- Territorial right (needs to be filed in each country where you require protection)

It's all about the claims

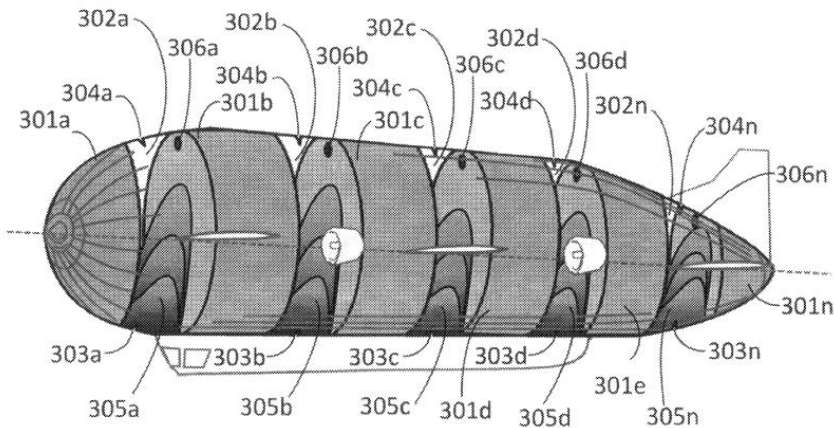


FIG. 3

US Patent 8,336,810 (Rinaldo Brutoco, Dec. 25 2012)

1. A method of transporting energy from a producing location to a consuming location comprising:
 - permitting loading of compressed or liquid hydrogen onto a lighter-than-air ship, wherein said compressed or liquid hydrogen is produced from a fixed energy source at said producing location;
 - releasing hydrogen gas from said loaded compressed or liquid hydrogen into one or more inflatable bladders in a plurality of compartments in said lighter-than-air ship from a one or more high pressure tanks to increase lift, each of said compartments having a venting mechanism allowing air to exit said compartment when a bladder is inflated in a particular compartment;
 - releasing hydrogen gas from one or more of said inflatable bladders in one or more of said compartments into one or more low pressure tanks to decrease lift, the venting mechanism in a particular compartment allowing air to enter the compartment when the bladder in that compartment is deflated, the low pressure tank recapturing hydrogen gas from bladder;
 - permitting said lighter-than-air ship to transport said loaded compressed or liquid hydrogen from the producing location to the consuming location;
 - adapting said lighter-than-air ship to offload said compressed or liquid hydrogen at the consuming location.

Copyright

Protects original creative work including:

Literary (e.g. Software, publications, databases)

Artistic (painting, photography, architecture, pre-commercial designs)

Musical (sound recordings)
Dramatic (TV broadcasts, films)

Automatic protection upon creation of the work

Remains for lifetime of creator plus 70 years

Belongs to creator or their employer

Confidential information- trade secrets



The information must be truly confidential (not publicly known) to be protected in this way.



“Confidential” markings and confidential agreements can help reinforce that the information is confidential.



A person receiving confidential information has an obligation to keep it secret for the term and (optionally) may use it for the particular use specified in the agreement.

Trade Secrets vs Patents

ISSUE	TRADE SECRETS	PATENTS
POSSIBLE TERM	Duration of secret	20 years
INDEPENDENT DISCOVERY	No protection against ID or reverse engineering	Protected against ID and often reverse engineering
SCOPE FOR PUBLICATION	No	Yes
ENFORCEMENT	Breach of confidence, contract, fiduciary duty etc.	Infringement
SCOPE OF PROTECTION	Specific to particular secret	Can be broadened beyond specific discovery



What about ideas?



Contrary to what some people think, you can't own an idea by itself.



Instead ownership requires the idea or its application to be protected by a patent, trade secret, etc.

What about data?

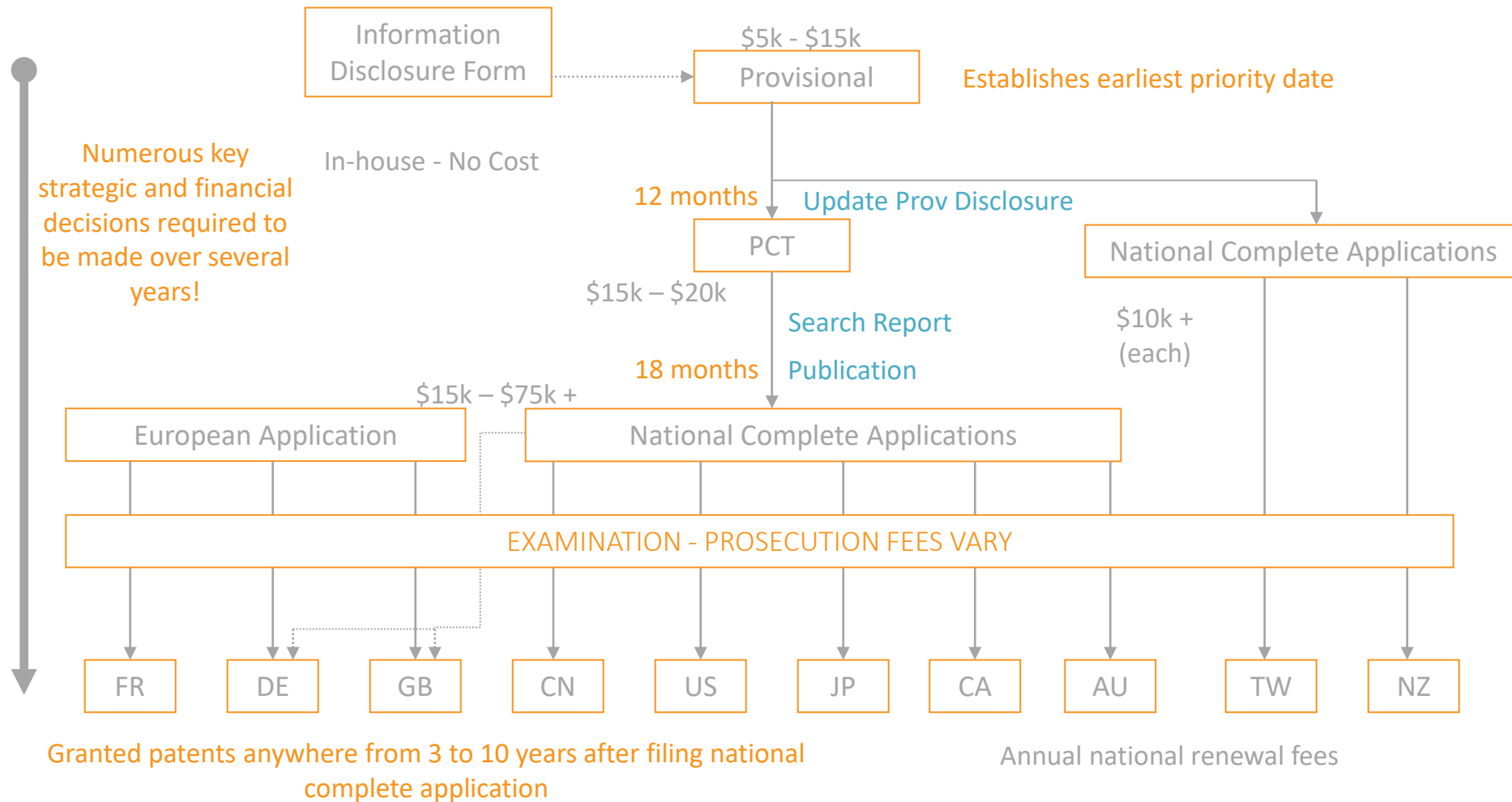
- You can't own data either
- It's all about control – access to data, how data is used, etc.
- Need to control access to data with legal agreements

Negative and positive rights

- IP rights are a negative right, ie. a right to exclude
- They are in general not a positive right, ie. the right to do something
- For example, imagine 2 patents:
 - A first patent for a tyre
 - A slightly later patent for a tyre with tread, filed by somebody else
 - The owner of the second patent would still need to seek a licence from the owner of the first patent to sell a tire with tread, at least until the first patent expires

Patents

Patent System



Tests for Patentability

Standard Patents

- Claims must define patentable subject matter
- In most countries, the invention must not have been **sold, offered for sale** or **secretly used** for the purpose of trade or commerce prior to filing the patent application
- Claims must be **novel**
 - A common trap: **Publish or Patent?**
- Claims must be **inventive**
 - Must not be obvious to the skilled person in the technical field, considering their general knowledge
- Specification must **enable** skilled person to perform the invention across the breadth of the claims without undue burden or experimentation

Common Mistakes

Publishing before filing a patent application

- Invention is therefore no longer new at application stage as a result, thus not novel

No prior patent searching

- Essentially inventing in a vacuum
- A later discovery may be very costly

Insufficient enablement

- Broken the 'Patent Bargain'

Common Mistakes

Publishing improvements after filing a provisional application

- Improvements may be critical to the commercial value of the invention, but if not disclosed in patent there is **no protection**

Statements in patent specification affecting the patentability of future inventions

- Providing suggestions/motivation to further inventions

IP Ownership

Who is an inventor?

~~“I would be listed as an author on the academic paper so that makes me an inventor”~~

WRONG!

IP Ownership

- Chain of entitlement from inventor(s) must be clear
- Owner can provide IP access (e.g. licence) to third parties
- Who has access?
 - For what purpose?
 - For what length of time?
 - Who owns improvements?



Identifying IP

Is it patentable?

“We are just combining well known components so it can’t be patentable.”

WRONG!

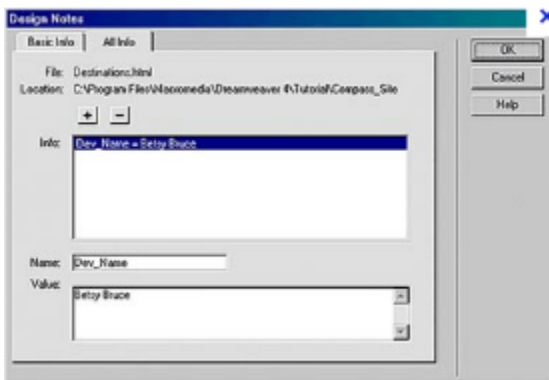
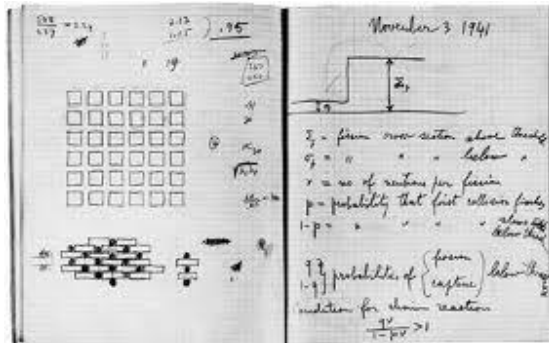
Examples for Future Energy Exports CRC

- New and improved hydrogen production processes (e.g. electrolysis, steam reforming)
- New and improved materials for hydrogen containment
- Liquid or solid carriers for hydrogen
- New and improved uses of ammonia for transport, heat and power generation
- Mixed refrigerant compositions
- New and improved LNG plant configurations
- Gas treatment processes (e.g. separation and/or recovery of He, Hg, CO₂)
- Transport logistics systems
- Remote plant operations (digital twins, visualisation)
- Real time control systems (IoT)
- Optimisation of any of the above through modelling, AI

Capturing IP

Capturing IP

Make detailed notes as evidence of IP



WRAYS **WVZ LOGO**

INNOVATION DISCLOSURE DOCUMENT

The document (IDD) is intended to assist Company XYZ with the identification and capture of their developments and innovations as they arise. If there is any doubt as to whether there is an innovation, please complete and submit an IDD anyway. Use a separate IDD for each innovation. Please complete the IDD as completely as possible. If a section is left blank then those details can be submitted later. Please maintain copies of all original documentation (such as notes, reports, drawings, etc.) do not destroy anything. Please keep a copy of this IDD for personal records. When the IDD has been completed, print a copy, sign and have it countersigned by a peer as indicated. Do not make any changes to submitted and approved documents after the date of the signature on this document.

IDD DATE	INNOVATION NO.
NAME/ TITLE	Provide In-house name or descriptor that has been allocated to the Innovation
INNOVATOR DETAILS	For each Innovator include full name, address and nationality
BUSINESS DIVISION	Provide name of relevant business division within the organization if appropriate
BRIEF DESCRIPTION	Provide a short summary of the Innovation highlighting any key features
CONCEPTION DETAILS	Include details of the earliest date of conception, including where, when, and by whom
INNOVATION STATUS	Indicate whether the Innovation is currently being used, has been trialed, or is theory only
PRIOR/ ANTICIPATED DISCLOSURE	Provide details of any disclosure which has occurred or which is anticipated, including when, to whom, in what form, and the level of detail
PROBLEM ADDRESSED	Indicate what problem the Innovation overcomes or how the Innovation came about

Confidential Information of Company XYZ Page 1

- Design Notes
- Laboratory Notebooks
- Formal IDD
- Ideas/IDD Register

IP Strategy

Is this your IP strategy?



Alice: “Can you tell me which path I should take?”

Cheshire Cat: “That depends a good deal on where you want to go!”

Alice: I don’t really know.

Cheshire Cat: Then, clearly, any path will do!

Proactive IP Management

Include IP considerations into all stages of R&D and project planning

IP Landscape

- Active monitoring of the IP landscape

Freedom to Operate (FTO)

- May be critical for certain innovations

Extracting Value from IP Assets

- Premium Pricing
- Licensing
- Enforcement
- Capital Raising
- Defensive
- Bargaining



QUESTIONS?



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About Wrays

Wrays is one of the largest independent IP specialist firms in Australia – bringing together the right combination of experts to protect, grow and defend your intellectual property assets locally and globally.

Disclaimer

This presentation provides general, high-level information about intellectual property and does not constitute legal advice. Always seek legal advice based on your specific needs and circumstances from a qualified lawyer in the relevant jurisdiction.

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