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# NICK'S LAW NOTES

# intellectual property: patents

## PATENTS ACT & LAW OF CONFIDENCE

<b>PATENTABLE SUBJECT-MATTER.....</b>	<b>2</b>
* <b> GROUNDS FOR REVOCATION (S 80(1)).....</b>	<b>2</b>
<b>1. DISCOVERY-INVENTION DICHOTOMY .....</b>	<b>2</b>
<b>2. 'NEW' – NOVELTY REQUIREMENT (S 14).....</b>	<b>3</b>
2.1 <b> DEFINE AND CHARACTERISE THE CLAIMED INVENTION .....</b>	<b>3</b>
2.2 <b> IDENTIFY THE 'STATE OF THE ART' .....</b>	<b>3</b>
PRIORITY CLAIM (CUE: PATENTS FILED OVERSEAS).....	3
'MADE AVAILABLE TO THE PUBLIC' .....	3
PRIOR DISCLOSURE .....	6
DISREGARDED DISCLOSURES (S 14(4)).....	6
PRIOR USE (ANALYSIS = ENABLING DISCLOSURE!).....	7
2.3 <b> ASSESS THE INVENTION: HAS IT BEEN ANTICIPATED? .....</b>	<b>8</b>
<b>3. 'INVENTIVE STEP' – NON-OBVIOUSNESS (S 15) .....</b>	<b>11</b>
3.1    IDENTIFYING THE INVENTIVE CONCEPT .....	11
3.2    DEFINE THE 'STATE OF ART' .....	11
3.3    DIFFERENCES BETWEEN PRIOR ART AND ALLEGED INVENTION .....	12
3.4    ASSESS THE INVENTION: TESTING FOR NON-OBVIOUSNESS.....	12
<b>3. INDUSTRIAL APPLICATION (S 16).....</b>	<b>14</b>
 <b>INFRINGEMENT .....</b>	 <b>16</b>
<b>1. CLAIM CONSTRUCTION .....</b>	<b>16</b>
1.1    SINGAPORE'S APPROACH.....	16
RELEVANT PRINCIPLES.....	16
1.2    US DOCTRINE OF EQUIVALENCE .....	18
<b>2. INFRINGING ACT (S 66) .....</b>	<b>18</b>
2.1    PRODUCT PATENTS: S 66(1)(A).....	18
INFRINGEMENT BY <b>MAKING</b> OR <b>REPRODUCTION</b> .....	19
INFRINGEMENT BY <b>DISPOSAL</b> OR <b>OFFER TO DISPOSE</b> .....	19
2.2    PROCESS PATENTS AND USE OF THE PROCESS: S 66(1)(B) – KNOWLEDGE REQUIRED!.....	20
2.3    ANY PRODUCTS OBTAINED DIRECTLY FROM THE PROCESS: S 66(1)(C) .....	20
<b>3. REMEDIES (S 67) .....</b>	<b>20</b>
<b>4. DEFENCES .....</b>	<b>21</b>
4.1    GENERAL DEFENCES: S 66(2) .....	21
4.2    COMPULSORY LICENSES: S 55.....	21
4.3    GOVERNMENT USE: S 56 (VERY LIMITED) .....	21
4.4    RIGHT TO BRING PROCEEDINGS: S 76(3) .....	21
 <b>BREACH OF CONFIDENCE.....</b>	 <b>23</b>
<b>1. NECESSARY QUALITY OF CONFIDENCE.....</b>	<b>23</b>
<b>2. IMPARTED IN CIRCUMSTANCES IMPORTING AN OBLIGATION OF CONFIDENCE.....</b>	<b>25</b>
2.1    DIRECT RECIPIENTS.....	25
2.2    INDIRECT OR THIRD-PARTY RECIPIENTS – REQUIRE KNOWLEDGE!.....	25
'TAKERS' OF CONFIDENTIAL INFORMATION – NO RELATIONSHIP BETWEEN PARTIES.....	26
EMPLOYEES AND EX-EMPLOYEES.....	26
<b>3. UNAUTHORISED USE OF INFORMATION TO DETRIMENT OF PARTY COMMUNICATING IT.....</b>	<b>27</b>
<b>4. DEFENCES – PUBLIC INTEREST DEFENCE.....</b>	<b>27</b>

**PATENTABLE SUBJECT-MATTER**

**\* GROUNDS FOR REVOCATION (S 80(1))**

Section 80(1) provides an exhaustive list of grounds upon which a patent may be revoked:

- (a) The invention is **not a patentable invention**, contrary to s 13.
  - a. A patentable invention is one that is new, involves an inventive step, and is capable of industrial application (s 13(1)).
  - b. It must not encourage offensive, immoral, or anti-social behavior (s 13(2)).
- (b) The patent was **granted to a person not entitled to the grant of that patent**, contrary to s 19.
- (c) There is **no 'enabling disclosure'**, contrary to s 25(4).
  - a. That is, the specification of the patent does not disclose the invention clearly and completely for it to be performed by a person skilled in the art.
- (d) The specification of the patent **discloses 'additional matter'**, contrary to s 84.
- (e) An **amendment or correction was made to the specification of the patent which should not have been allowed**, contrary to s 84(2) or s 84(3).
- (f) The patent was **obtained fraudulently, or on any misrepresentation**, or on any non-disclosure or inaccurate disclosure of any prescribed material information
- (g) There is **'double patenting'** for the same invention, contrary to s 30(3)(e).

An application for revocation under s 80(1) may be made to the Registrar of Patents, or to the High Court. The power of the SGHC to hear revocation proceedings is found in s 91(1).

**1. DISCOVERY-INVENTION DICHOTOMY**

ARGUE: THE FACT THAT A DISCOVERY IS MADE DOES NOT MEAN THAT THERE IS AN INVENTION.

**E.G. DISCOVERY/SOFTWARE/BUSINESS METHOD**

Section 13(2): It is hereby declared that the following (among other things) are not inventions for the purposes of this Act, that is to say, anything which consists of – (a) a **discovery, scientific theory or mathematical method**; (b) a **literary, dramatic, musical or artistic work** or any other aesthetic creation whatsoever; (c) a **scheme, rule or method** for performing a mental act, playing a game or doing business, or a program for a computer; or (d) the **presentation of information**, but the foregoing provisions shall prevent anything from being treated as an invention for the purposes of this Act only to the extent that a patent or an application for a patent relates **to that thing as such**.

<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>It is submitted that the removal of the old s 13(2) under the Patents Act 1994 does not mean that Parliament intended to allow for the patenting of things which were previously not patentable e.g. discovery; deletion was merely a removal of a list of examples.</p>	<p>Deletion of s 13(2) suggests that Parliament intended for discoveries and mathematical methods to be considered as inventions</p> <ul style="list-style-type: none"> <li>• NB: Be wary of such an analysis. <u>Taken to its logical conclusion</u>, it means that a discovery, scientific theory or mathematical method would be allowed. It would mean that discoveries can be patented; goes against the discovery-invention dichotomy. Even in pro-patent jurisdictions such as US, the dichotomy is still retained.</li> </ul> <p><i>Diamond</i>: Man-made oil-eating bacteria patentable. US Supreme Court discussed discovery-invention dichotomy.</p>
<p><b>Policy:</b> Threshold discovery-invention dichotomy serves an important function in weeding out applications which are not deserving of the strong protection patent law affords.</p>	<p><b>Policy:</b> No need threshold; just focus on the other steps.</p> <ul style="list-style-type: none"> <li>• E.g., under obviousness, whether use is deserving is already analysed.</li> <li>• <input checked="" type="checkbox"/> Also, allowing discoveries of certain nature such as purified or isolated biomedical materials to be considered inventions would reward diligence and incentivise further research.</li> <li>• <input checked="" type="checkbox"/> However, such an allowance would obstruct downstream research i.e. nobody else can do research on that gene .</li> </ul>

CONCLUDE: WHAT P HAS ACHIEVED IS **A DISCOVERY** WHICH DOES NOT AMOUNT TO AN INVENTION. THUS **NOT PATENTABLE**.

## 2. 'NEW' – NOVELTY REQUIREMENT (s 14)

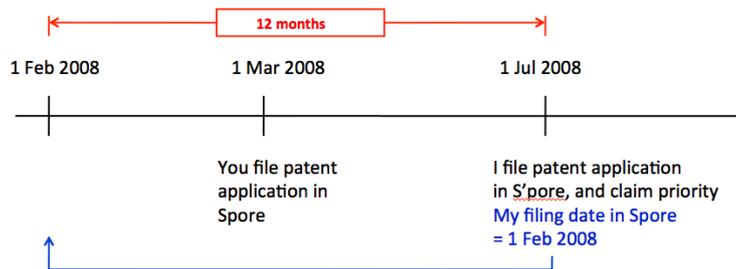
### 2.1 DEFINE AND CHARACTERISE THE CLAIMED INVENTION

Typically refer to **patent specification**.

### 2.2 IDENTIFY THE 'STATE OF THE ART'

(2) The state of the art in the case of an invention shall be taken to **comprise all matter** (whether a product, a process, information about either, or anything else) which has at any time **before the priority date** of that invention been **made available to the public** (whether in Singapore or elsewhere) by written or oral description, by use or in any other way.

#### PRIORITY CLAIM (CUE: PATENTS FILED OVERSEAS)



If a patentee files his application in two different countries at different time, the date of filing can be backdated to the earlier date if the later application is **filed in a Convention country within 12 months** (s 17 read with s 2(1)) ("corresponding international application"); *Art 4 of the Paris Convention*. In this case, given that P has filed a similar patent claim in (COUNTRY) on (DATE), the date of filing can be backdated to (DATE). Accordingly, only state of the art before this date would be applicable.

#### 'MADE AVAILABLE TO THE PUBLIC'

[1] **Confidentiality issue:** Disclosure of the product in circumstances **without any fetter** on the recipients amounts to being "made available to the public." **Communication to a single member** of the public **without inhibiting fetter** is sufficient to render the informational matter part of the prior art, thus destroying novelty (*Bristol-Myers Company's Application; Genelabs*).

- *Lux Traffic Controls*: An invention's novelty would be destroyed if it was given to a contractor for testing and if that contractor could test and understand how it worked.
- **KEY: WHETHER FREE AT LAW OR IN EQUITY (MERRELL) → OBLIGATION OF CONFIDENCE**

Direct recipients

[1] **Subsistence of the obligation** (*Invenpro*):

Since there was no contractual relationship between \_\_\_ and \_\_\_, P's assertion of confidentiality relied on the equitable obligation of confidence.

- **CONTRACT:** Where **there is a contract**, an obligation of confidence may be imposed either **expressly** (non-disclosure agreement) or **impliedly**.
  - **Express:** Where there is an employment agreement governing the relationship of parties at the material time as employer and employee, any obligation of confidence owed would therefore be set out by the express terms in that agreement (*PH Hydraulics*).
    - That such a restrictive covenant of confidentiality would be enforceable post-employment against the employee, thus ensuring that the employer's confidential information remained secret, gives force to the concept of freedom of contract.
    - There would **not be any additional implied or equitable duty of confidence post-employment arising over and above what was already expressly stipulated** in the contractual confidentiality clause (*Man Financial; PH Hydraulics*).
  - **Implied:** Common sense
- **EQUITY:** **Disclosure in business context raises a rebuttable presumption**. This flows from the 'reasonable bystander test' proposed.
  - Megarry J in *Coco v Clark*: Equity would intervene to impose an obligation if the circumstances are such that **any reasonable man standing in the shoes of the recipient of the information would have realized that, upon reasonable grounds, the information was imparted to him in confidence**.

- Courts are very willing to imply an obligation of confidence when confidential information of commercial value is given to a person in a commercial setting, for example, during business negotiations:
- In *Stratech Systems v Guthrie Properties*, the SGHC imposed an obligation of confidence on the Df who was given confidential information relating to a car park system during business negotiations for the system to be installed in the Df's building.
- In *Haw Par Brothers v Jack Chiarapurk*, the CA imposed an obligation of confidence on the Df to whom confidential information was given for the purpose of a joint venture with the Pf. In such situations, it would be difficult for the Df to argue that he did not realise that the information was imparted to him in confidence, albeit in the absence of an express obligation of confidence.
- **Even where there is a contract between the parties**, equitable obligations may still arise quite independently of the contract. These include **fiduciary obligations** as well as **equitable obligations of confidence**.
- In **non-contractual situations**, an obligation of confidence may arise in equity by applying **principles of good faith and conscience**.

**Issue:** What is the relevance of marking document 'confidential'?

- In *Stratech*, the plaintiff's documents disclosed to the defendant were marked "Confidential" and "Patent Pending." The HC held that the defendant **received the information in circumstances which imposed an obligation of confidence**.
- Note: **Mere labeling does not automatically impose an obligation: QB Net**.

*Indirect or third-party recipients* – **require knowledge!**

[1] Where the defendant is an indirect recipient of the confidential information, **equity will intervene** to impose an obligation of confidence if the defendant received the information with **knowledge of its confidential nature**.

- Thus, in *QB Net*, the court held that assuming that the documents were confidential in nature, it could be said that the second defendant had received them as a third party and under circumstances which gave rise to an obligation of confidence. This was because the second defendant had actual knowledge of their confidential nature.
- In *PH Hydraulics*, court held that as an indirect recipient of the five GA drawings and knowing their confidential nature, **equity** imposes on the first defendant an obligation of confidence. This obligation bound the first defendant from the moment it received the five confidential GA drawings from the second defendant.

[2] In *Invenpro*, a stricter test was conceived by the High Court: D must have received the information with **knowledge of the breach** by the direct recipient. This is because equity should only intervene where there is *mala fides*, which is present only where there is a breach.

**Issue:** What if D initially did not know of the breach of confidence but subsequently acquired knowledge?

[1] If a third party is **willfully blind** to the confidential nature of the information that he has received, an **obligation of confidence will be imposed** on him (*Vestwin*).

[2] An **innocent indirect recipient of confidential information** will have an obligation of confidence placed upon him from **the moment that he is put on notice** about the nature of the information (*Vestwin*).

[3] Equity will not intervene where conscience of defendant has not been tainted (*Invenpro*).

- It is not in every case where D receives a letter of warning from lawyer that equity imposes obligation.
- When you have a letter of warning, you may not have to immediately stop. You just assess. If assessment reveals no breach, you don't have to stop because you believe that you have a defensible position.

*'Takers' of confidential information* – no relationship between parties

[1] **Taking of information:** By extending *Megarry's* 'reasonable man' test to the 'taker', an obligation of confidence arises where confidential information had been **taken by illegal means** (*Vestwin*) or where it had been **received or learned in such circumstances** that a duty of confidentiality arises (*X v CDE*).

[2A] If a **stranger acts legally** in obtaining information, **no obligation** of confidence will arise (*Malone v Commissioner of Metropolitan Police*).

- Thus in *Malone*, information obtained through phone-tapping, which was of a legal type, would give rise to no obligation of confidence. Megarry J stated that in such a situation, the **mode of communication is a matter of choice**. If the plaintiff knows that speaking over the telephone

is not a secure mode, then he must accept the risk that the information to get to somebody else. Accordingly, there is no quality of confidentiality in information that is passed over such insecure channels.

- Even if there was a duty of confidentiality, it would be overridden by public interest in assisting the police in crime detection and prevention (*Malone*).

[2B] If a stranger acts illegally in obtaining information, an obligation of confidence arises (*Francome v Mirror-Group Newspapers*).

- In *Francome*, P jockey's telephone was tapped illegally. Information obtained through the unauthorised phone tapping showed that P was receiving bribes and was in breach of rules. CA distinguished *Malone*. In this case, the tapping was done illegally. In *Malone*, it was done legally.

#### Employees and ex-employees

[1] To what extent are former employees bound by an obligation of confidence? What are the policy considerations?

- **Policy considerations:**
  - The court seeks to (1) uphold the obligation of the free contracting parties to a contract of service to honour their contractual obligations.
  - On the other hand, the court seeks to (2A) respect the rights of servants to advance in their chosen trade and profession, and in this connection to promote their own (2B) private interest by changing employment, and also to promote the (2C) public interest by better use of the servants' personal aptitudes, experience and skill (*Tang Siew Choy*)
  - Also, courts believe that (2D) competition is generally a good thing (*Invenpro*).
  - It follows from the foregoing that an employer **must particularize the confidential information** which he seeks to protect (*Tang Siew Choy*).
- Make distinction between 'confidential information' (can use) and 'trade secrets' (cannot use) (*Tang Siew Choy*)

[2] For such purposes, guidelines are provided under *Faccenda Chicken*, as applied by SG courts in *Asia Business Forum v Long Ai Sin*. There are four factors to consider when ascertaining if information is considered "trade secrets" or not:

- 1) THE NATURE OF THE EMPLOYMENT
  - How near is the employee to the 'inner counsel' of the employer? Only information made known to trusted employees is more likely to constitute a trade secret.
- 2) THE NATURE OF THE INFORMATION ITSELF
  - The information must be defined with some degree of precision. There will be no protection for general business methods. Just because information is technical does not qualify it as trade secrets
  - Information must be information the release of which the owner believes would be injurious to him or of advantage to his rivals or others (*Coco v Clark*)
- 3) WHETHER THE EMPLOYER IMPRESSED ON EMPLOYEE THE CONFIDENTIALITY OF THE INFORMATION
  - If information was specifically designated as a trade secret by the employer, it is more likely to be accepted as such by the Courts.
  - However, it is unrealistic to expect a small business from adopting the same disciplines as a larger business. For small businesses, the courts may treat information as trade secrets even though the employer did not designate it as such.
- 4) WHETHER THE RELEVANT INFORMATION CAN BE EASILY ISOLATED from other information which the employee is free to use or disclose
  - Isolated from elements like the employee's own stock of knowledge, skill and expertise

[3] Examples

- ☒ *Asia Business Forum*: Did not impress on employee the confidentiality of information
- ☒ *PH Hydraulics*: Not trade secret. Took steps to enforce it (signing in and out) but did not in practice actually enforce. Not serious about it, so suggests that it is not a trade secret.

[2] **Obscurity not a bar:** It is settled law that accessibility by the public to the relevant informational matter is the **key consideration; whether the public in fact access** the informational matter and whether the public appreciates the contents contained in them are **irrelevant** (*Milliken v Walk Off Mats*).

- Use it to address fact patterns relating to obscurity of a piece of informational matter (limited circulation, difficulties in gaining access, or by its nature e.g. obscure language).
- ☒ *Milliken*: All three arguments failed because these **customers could have tested and discovered if they wanted to**.
  - (1) Jacob J held that the mats placed at such public places destroyed their novelty. The customers of these places were free to inspect and conduct tests on mats. It was irrelevant that no one tested the mats. What was relevant was that they could have if they wanted to.

- (2) The patentee argued that even if the customers could inspect the mats, the perforations were not visible to the naked eye. Jacob J rejected this argument. What mattered was that the customers could have tested the mats. If they did so, they could have discovered the perforations.
- (3) The final argument was that even if the perforations were known to the HSR, he wouldn't have known the reason for their existence. This also was rejected. What mattered was that they could possibly have found out if they tested the product

[3] Policy considerations

Made available to the public	Not made available to the public
<p>It is necessary to adopt a strict, <b>BRIGHT-LINE APPROACH</b> so as to <b>avoid subjectivity</b> and most questions of degree (<i>Milliken</i>, per Jacob J).</p> <ul style="list-style-type: none"> <li>• If the matter is available to the public, then the public have the right to make and <b>use the information in the matter without hindrance from a monopoly</b> granted by the State.</li> <li>• Even if prior use was by the patentee, <b>patentee can protect himself by applying for a patent</b> before making the product available to third parties for examination or analysis.</li> </ul>	<p>Strict application of the law <b>would not do justice to inventors</b>.</p> <ul style="list-style-type: none"> <li>• <b>Harshness (to inventors) slightly abated by s 14(4)</b>, where certain disclosures of matter constituting the invention are disregarded for the requirement of novelty.</li> </ul> <p>Use <b>particular circumstances</b> to further highlight injustice:</p> <ul style="list-style-type: none"> <li>• If <b>prior use was by patentee</b> (while he may protect himself by applying for a patent, the <u>patent application process is expensive</u> and <u>requires specificity</u>, which sometimes can only be achieved through trial-testing, thus placing patentee in a <b>double-bind</b>)</li> <li>• If on the facts it is <b>practically impossible for the person who has access to invention to understand or work the invention</b>.</li> </ul>

PRIOR DISCLOSURE

*Written publication*

[1] **Patent specifications:** An important source of written prior art lies in **patent specifications filed and published**. All patent specifications published at any time **before the priority date** of the invention form part of the prior art.

[2] **Patent applications:** *Section 14(3)* provides that **unpublished, pending patent applications (filed but not yet published)** may constitute prior art and be relevant to the issue of novelty if it was filed and published, and the priority date is earlier than that of the invention.

[3] Informational matters contained in **books and monographs** would be taken to have been made available to the public on the date of first publication.

- Thus, “an anticipating description in a book will invalidate a patent if the book is on a shelf of a library open to the public, whether or not anybody read the book and whether or not it was situated in a dark and dusty corner of the library” and “if the book is available to the public, then the public have the right to make and use the information in the book **without hindrance from a monopoly granted by the State**” (*Lux Traffic Controls*).

*Oral description*

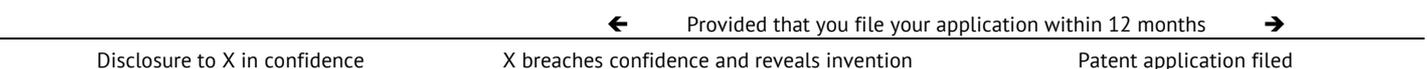
[4] Under *s 14(2)*, the relevant informational matter can constitute part of the prior art if it has been made available to the public by **oral description**. However, it must be appreciated that **certain evidentiary difficulties** are likely to arise when the informational matter relied on to establish prior art is transmitted orally.

*Any other way*

[5] Other modes of disclosures may provide enabling disclosure, but it must be appreciated that it is harder to prove with modes of disclosures other than written publications.

- Photograph or an illustration of the invention for which protection is sought (*Van der Lely v Bamfords*)
- A chemical composition

DISREGARDED DISCLOSURES (s 14(4))



Patentability can be preserved by...

**[1] Disregarded disclosures:** The disclosure of matter constituting an invention shall be disregarded in the case of a patent or an application for a patent if occurring later than the beginning of the **period of 12 months** immediately preceding the date of filing the application for the patent and either:

- Disclosure **obtained unlawfully or in breach of confidence**: s 14(4)(a),(b)
- Disclosure of invention at **'international exhibition'**: s 14(4)(c)
  - But narrowly defined under s 2(1): officially recognised exhibition within the Convention of International Exhibitions
- Disclosure of invention before **'learned society'**: s 14(4)(d)
  - Definition of 'learned society': s 14(5) includes any club or association whose main object is the promotion of any branch of learning or science

**[2] Deeming provision for first medical use of known products:** Invention consisting of substance or composition for use in method of treatment of human or animal body by surgery or therapy or diagnosis, fact that substance or composition forms part of the state of the art shall not prevent the invention from being taken to be new if the **USE of the substance or composition in any such method does not form part of the state of the art**: s 14(7)

- But s 16(2): A METHOD/PROCESS of medical treatment cannot be patented (lack of industrial application)
  - To say that methods of medical treatment has no industrial application but products used in medical treatment can have industrial application appears to be a **legal fiction**. Suggests **underlying public policy** (incentivise invention for greater good of mankind)
- However, s 16(3): But a PRODUCT used in a method of medical treatment may be patented.
- **Issue:** What about subsequent use e.g. chalk used to cure cancer?
  - UK allows for patenting of subsequent uses but in SG there is no such statute yet.

#### PRIOR USE (ANALYSIS = ENABLING DISCLOSURE!)

**[1]** The opportunity for a member of the public to examine the invention completely so as to discover the workings of the invention is an important consideration in determining whether the invention has been made available to the public by prior use. A use **from which knowledge can be derived** and which **enables the invention to be performed** would become prior art if it is possible for the hypothetical skilled reader to **discover the invention's composition or internal structure** and to **reproduce it without undue burden** (*Lux Traffic Controls*).

- In *Lux Traffic Controls*, the court held that the patents for an intelligent traffic light control system were **anticipated by the trial use of the prototype traffic controller in public**. This was so even though all the prototype was **stored in a locked cabin** that even the **contractor had no access to**. Contractor was **under no bar of confidentiality**. Court concluded that if the **skilled person had taken time to conduct a testing of the way the lights worked, he would have discovered the invention**, thus destroying novelty.
- If an invention has been **put on sale** in the market before the priority date of the patent application, it would have been **made available to the public**. The public may now acquire the invention from the market and examine the product to discover its workings; **whether the member of the public actually does so or not is irrelevant** (*Lux Traffic Controls*).
- Note however in *Merrell Dow*, where court stated that patents may be granted for an invention covering a product that has been put on the market **provided the product does not provide an enabling disclosure of the invention claimed**. In most cases, prior sale of the product will make available information as to its contents and its method of manufacture, but it is possible to imagine circumstances where that will not happen.

**[2]** A prior use which is **'secret or uninformative' cannot anticipate the invention** (*Merrell*). But a use from which **knowledge could be derived** which **enabled the invention to be performed** is not an uninformative use (*Milliken*).

- Distinction between 'secret' and 'uninformative' (*Merrell* at p85)
  - 'Secret' = Information about the invention had been deliberately concealed // confidentiality
  - 'Uninformative' = Unaware
- **Uninformative use:**
  - *Bristol-Myers* as interpreted by *Merrell*: A description of the product by its chemical composition or as "something in the lubricating oil which inhibits rust formation" or any other of the descriptions under which it was previously known **would not enable anyone to use if for the purpose of reducing friction**, even though this would be the inevitable consequence of doing so. It did not therefore prevent the invention in the form sanctioned by the Enlarged Board from being novel.
  - *Merrell*: It may be helpful at this point to highlight the similarities and the distinctions between the case for anticipation by use, which I have rejected, and the case for anticipation by disclosure, which I have accepted
    - The court hence found no **ANTICIPATION BY USE** because those who took the drug in the clinical trial had **no possibility of knowing** about the **chemical reaction that was happening in the body**. A prior use which is **'secret or uninformative' cannot anticipate** the invention, therefore this **disclosure was not enabling** and thus **did not anticipate invention**.
    - **ANTICIPATION BY DISCLOSURE**, on the other hand, **relies upon the communication to the public of information which enables it to do an act having the inevitable consequence of making the acid metabolite**. The *terfenadine* specification teaches

that the ingestion of terfenadine will produce a chemical reaction in the body and for the purposes of working the invention in this form, this is a sufficient description of the making of the acid metabolite. Under the description the acid metabolite was part of the state of the art.

- **Milliken:** But a use from which knowledge could be derived which enabled the invention to be performed was not an uninformative use. The perforations in the plaintiff's mats would have been revealed by an easy and ordinary investigative technique. As a matter of law, mere knowledge of the perforations would enable the skilled man to perform the invention. That he would not know of its virtues was irrelevant.
  - **Undue burden argument:** Rejected because a fuller investigation by an easy and ordinary technique would have revealed the perforations → but this suggests that if it is a difficult or impossible investigation, it could apply?
  - **Mere information which would not disclose alleged invention argument:** Rejected because knowledge of the perforations would enable a skilled man to perform the invention, i.e. make mats falling within the claim. That he would not know of its virtues is irrelevant. Similarly, for instance, if an analysable chemical is put on the market, it is available to the public even if the public do not know its virtues.

[3] In the case of a written description, what is made available to the public is the description and it is **irrelevant whether it is read**. In the case of a machine it is that machine which is made available and it is **irrelevant whether it is operated in public** (*Lux; Milliken*). A machine like a book, can be examined and the information gleaned can be written down.

- Similarly in *Availability to the Public*, the Board of Appeal of the EPO held that in relation to a chemical composition which had been sold to the public, no distinction would be made between chemical and other products, and that it would fall into the state of the art as long as the composition or the internal structure of the product could be discovered and reproduced without undue burden

[4] **Policy:** It is necessary to adopt a strict, BRIGHT-LINE APPROACH so as to **(a) avoid subjectivity** and most questions of degree. Also, it does not seem harsh if considers that the use may be by somebody else than the patentee; conversely, it would **(b) seem harsh if a patent could be obtained to stop the prior use**. Even if prior use was by the patentee, **(c) patentee can protect himself by applying for a patent** before making the product available to third parties for examination or analysis (*Milliken*, per Jacob J).

- **HARSH TO PUBLIC:** If the matter is available to the public, then the public have the right to make and use the information in the matter without hindrance from a monopoly granted by the State.
- **HARSH TO INVENTORS**
  - **Challenge:** Practical, funding issue: the problem with 'filing first' advice is that it is an **expensive process.**
  - **Challenge:** But given the discovery-invention dichotomy, where protection is only given to invention, the problem with such a test is that it **protects potential, future invention at the expense of present, actual invention** (in the situation where prior use was by patentee).
  - **Harshness (to inventors) slightly abated by s 14(4)**, where certain disclosures of matter constituting the invention are disregarded for the requirement of novelty.

2.3 ASSESS THE INVENTION: HAS IT BEEN ANTICIPATED?

**THRESHOLD PARAGRAPH**

*Section 14* of the Patents Act provides that an invention shall be taken to be new if it does not form part of the state of the art. The state of the art comprises all matter (whether a product, a process, information about either or anything else) which has, at any time **before the priority date** of that invention, been **made available to the public**, whether in Singapore or elsewhere, by written or oral description, by use or in any way. Additionally, **disparate** pieces of prior art cannot be combined unless a document directs the reader to do so (*Merck; Trek Technology*).

**ENABLING DISCLOSURE DISTINCTION**

Disclosure and enablement are **distinct legal concepts** (Lord Hoffman, *Synthon v Smithkline; Mobius/Pencil Sharpener*):

- **POSSIBILITY - NO ROOM FOR EXPERIMENTATION:** In the case of disclosure, the role of the HSR is to **understand what the author of the prior art meant** and once the meaning of the prior disclosure is determined, the HSR would have to **conclude either** that the prior art **discloses an invention** which, if performed, would infringe the patent or that it does not.
- **ACTUALISATION - EXPERIMENTATION ALLOWED:** For the purpose of enablement, the **focus is on the technical teachings of the prior art** and the role of the HSR in the art is to **ascertain if he would be able to work the invention** as disclosed by the prior art.
- **\*\*\*For the possibility part, no room for experimentation** (*Merck* – experimentation to create Lovastatin means it did not inevitably produce, therefore invention was not anticipated) whereas for actualisation part, experimentation is allowed (*Synthon*). Distinction only matters in rare

cases; in most cases, proof of one usually leads to proof of the other.

### ENABLING DISCLOSURE ASSESSMENT

*\*Essentially, it has to be on all fours with prior art.*

In considering what “a person of competent but average technical skill and who lacks imagination” (*Trek Technology*) would make out of the prior art, **without mosaicing the disparate prior art** and **without ex post facto analysis**, the prior publication must contain **clear and unmistakable directions** to do what the patentee claims to have invented to satisfy the anticipating test (*Muhlbauer*). A signpost, however clear, upon the road to the patentee's invention will not suffice. The prior inventor must be clearly shown to have **planted his flag at the precise destination before the patentee** (*General Tire*, approved in *Genelabs*).

- ☒ = not novel | ☑ = novel, not anticipated
- ☑ *Merck* (SGHC2002): In order for the prior art to have anticipated the patent in question, the patentee's product must be **INEVITABLY PRODUCED** by following the instructions in the prior art.
  - Q: Is Merck's **process patent** novel? Prior art cited: Earlier Canadian patents (CP 322 and CP 380)
  - ☑ CP 322: On the facts, the patentee's product was not an inevitability of following the instructions in the prior art. The CA noted the work of an expert who tried to get Lovastatin from following Merck's specification. However, Dr Sailer had to **modify the experimental environmental through trial-and-error** in order to get produce Lovastatin and **did not get it as an inevitability** and. Accordingly, the **patent in question was not anticipated by the prior art** (novel but invalidated for lack of inventiveness).
  - ☑ CP 380: **Bare assertion**. Court thus disregarded witness's testimony and held that CP 380 did not anticipate the invention.
- ☑ *Genelabs*: The challenge to the novelty of HIV-2 was based on 4 prior publications. Three of them reported the isolation of a virus (SIV) in monkeys with an AIDS like syndrome. The fourth was a study of certain Senegalese people who were infected with a virus that was closely related to SIV but ho showed no signs of AIDS. Subsequent studies showed that SIV was in substance the same virus as HIV-2.
  - The SGCA identified the crux of the invention as being the discovery that another virus (SIV) could infect humans with AIDS. The focus of the inquiry shifted to the question: did any of the four prior documents inevitably lead to the disclosure that SIV had the capacity to infect humans with AIDS? The answer to the question was 'no' and that led to the conclusion that the prior documents had no anticipated the discovery of HIV-2.
- ☑ *Trek Technology* (SGCA2006):
  - Court in applying the test in *General Tires* held that the patented thumbdrive, when compared with each of the prior arts, was **different** because it was a unitary data storage device with an integrated plug that **did not require a cable**.
  - As against the Aladdin key, it was **different** because it was a mass storage device and **not a security device**.
    - Essentially the court considered the **divergent purposes** in the two devices.
- ☑ *First Currency Choice* (SGCA2008): In obiter (since appellants abandoned lack of novelty argument), CA held that issue of novelty was a non-starter because **appellants had, in a brochure promoting the FCC system, described it as an innovative system** (therefore novel).
- ☑ *Muhlbauer v Manufacturing Integration Technology* (SGCA2010): Claims for device ('product patent') and method ('process patent')
  - Different formulation: Inevitably produce test = would it infringe test
  - Whether ASA Patent form part of the state of the art wrt s 14(2),(3)
    - The ASA Patent was published on 21 June 2004 and was granted in September 2005. All this took place *after* the Patent's **priority date of 16 February 2004**. However, the *priority date* for the ASA Patent was on 7 January 2002. In other words, while the ASA Patent was *published after* the priority date of the Patent, it had been *filed before* that same priority date.
    - S 14(2): Under s 14(2), therefore, the ASA Patent would have already been considered as well as **classified as prior art**, given the *international publication date* of its Patent Cooperation Treaty ("PCT") application on 17 July 2003.
    - S 14(3): Returning to the Appellant's concerns centring on s 14(3)(a) and relating to the possible non-correspondence of matters *filed* against matters *published* (see [31]–[32] above), we are of the view that this is something that can be easily verified, even by the court, by retrieving the relevant records and effecting the necessary comparisons. However, there is no necessity to adopt this particular course of action in the context of the present appeal (or, indeed, to even contemplate utilising s 14(3) in the first place), given the applicability of s 14(2) as noted above. That having been said, and although there is no necessity for us to express a concluded view on this particular argument, it would appear that, adopting an approach that looks more to the substance rather than the form, there is some doubt as to whether such an argument would be persuasive in the light of the views we expressed at the commencement of this particular paragraph.

50-50 = ☒

However, if prior publication contains a direction which is **capable of being carried out in a manner which would infringe the patentee's claim, but would at least as likely to be carried out in a way which would not do so**, the patentee's claim will **not have been anticipated**, although it may fail on the ground of obviousness (*General Tire*, approved in *Genelabs*).

### ROLE OF EXPERT WITNESS

Regarding expert evidence on question of inventiveness, a judge should be careful to distinguish his views on the experts as to whether they are good witnesses or good teachers. Ultimately it is the latter that matters as the fundamental reasons for their opinions would guide the court in deciding whether such reasons would be perceived by the HSR (*Aurigin Technology*, adopting *SmithKline*, per Jacob J).

### 3. 'INVENTIVE STEP' – NON-OBVIOUSNESS (S 15)

15. An invention shall be taken to involve an inventive step if it is **not obvious** to **a person skilled in the art**, having regard to any matter which forms part of the **state of the art** by virtue only of section 14(2) and without having regard to section 14(3).

**Rationale:** In reviewing the validity of a patent apropos of its obviousness, it is necessary to bear in mind the rationale underpinning the requirement of obviousness (*PLG Research v Ardon International*, per Millet LJ):

- **[T]he public should not be prevented from doing anything which was merely an obvious extension or workshop variation of what was already known at the priority date.**
- There are many cases in which obviousness has been held not to have been established, even though the prior art relied upon was very close ... **Where the prior art yields many possible starting points for further development**, it may not be obvious without hindsight to select a particular one of them for the development which leads to the invention claimed. If the patentee has come up with a solution to his problem which is no more than an obvious extension or workshop variation to some piece of the prior art, he cannot have a monopoly for his solution whether or not the skilled man would be likely to have known of the prior art in question. On the other hand, if it is found that, **even if he had known of it, the skilled man would not have regarded it as the obvious starting point** for the solution of the problem with which he was confronted, this will usually demonstrate that his discovery was **not an obvious extension or mere workshop variation of that prior art**.

In order for an invention to involve an inventive step, it must not be obvious to a person skilled in the art, having regard to the relevant state of the art (s 15). This inquiry is done using the *Windsurfing* approach as a guide; it is not an independent test for non-obviousness (*First Currency*):

#### 3.1 IDENTIFYING THE INVENTIVE CONCEPT

The first step of the *Windsurfing* approach looks to identify the inventive concept. On the facts, \_\_\_\_.

#### 3.2 DEFINE THE 'STATE OF ART'

The second step in the *Windsurfing* approach essentially seeks to ascertain the 'state of the art'.

In this inquiry, a preliminary question arises as to whether the "person skilled in the art" stated in s 15 is the hypothetical "diligent researcher" or "omniscient researcher" (*Technograph Printed Circuits*). This would determine the scope of common general knowledge available in assessing the state of the art. It is submitted that the **diligent researcher approach**, preferred by Lord Reid in *TPC* and SGCA in *First Currency Choice* (in obiter) for practical reasons, should be adopted. A strong case may then be mounted to exclude very obscure matters in the assessment of inventive step as these are things "which no one had ever looked at and which the most diligent searcher would probably miss" (*Technograph Printed Circuits*).

Even if the omniscient researcher approach preferred by Lord Diplock were used, the two positions may be **reconciled** by applying the observation in *ICI (Pointer's)* less weight may be attributed to (OBSCURE PRIOR ART) by the omniscient researcher because the **circumstances** of the prior disclosure/use may be such that it would be fair to assume that it would never come to his attention or, even if it did, that he would not pay any attention to it. On the facts, \_\_\_\_.

Accordingly, the (PRIOR ART) appears to be irrelevant to the present inventiveness inquiry.

<b>Circumstances</b>	<p>Circumstances of the publication of prior art may be such that it would be fair to assume that it would never come to the attention of the HSR or come to his attention in circumstances such that it would be wholly improbable that he would pay any attention to it (<i>ICI Pointer's</i>, per Whitford J).</p> <ul style="list-style-type: none"> <li>• A document may be one <b>☒ among a vast number</b> never likely to be given separate serious consideration.</li> <li>• A document may be 'available to the public' in the sense that it is lodged in a library, but the library may be one that is <b>☒ constantly consulted by workers in the field</b> or "one of the few remaining parish libraries where its <b>☒ presence is likely to be wholly undetected</b>".             <ul style="list-style-type: none"> <li>○ <b>☒ More weight to patent specifications and scientific journals vs ☒ fictional novels</b></li> </ul> </li> <li>• It may be of <b>☒ great antiquity</b>, in a language not generally current or it may be <b>☒ contemporaneous</b>.</li> </ul>
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*If patent specification is one of the prior art*

In considering what constitutes the relevant state of the art for assessing inventive step, the matter contained in the application for another patent with an earlier priority date as per s 14(3) will be **disregarded**.

### 3.3 DIFFERENCES BETWEEN PRIOR ART AND ALLEGED INVENTION

Step three of the *Windsurfing* approach looks to identify the differences that exist between the prior art and alleged invention. On the facts, \_\_\_\_\_

### 3.4 ASSESS THE INVENTION: TESTING FOR NON-OBVIOUSNESS

The final step looks to assess the invention for non-obviousness.

When dealing with obviousness, unlike novelty, it is **permissible to make a 'mosaic'** out of the relevant documents, but it must be a mosaic which can be put together by an unimaginative man with no inventive capacity: *Technograph Printed Circuits*, per Lord Reid; *Peng Lian Trading (CA)*. Assessment of obviousness with **hindsight must be avoided**, and the relevant state of the art is the one at the **priority date** (*PLG Research*).

- *PLG Research v Ardon International*, per Millet LJ:
  - **[T]he public should not be prevented from doing anything which was merely an obvious extension or workshop variation of what was already known at the priority date.**
  - There are many cases in which obviousness has been held not to have been established, even though the prior art relied upon was very close ... **Where the prior art yields many possible starting points for further development**, it may not be obvious without hindsight to select a particular one of them for the development which leads to the invention claimed. If the patentee has come up with a **solution to his problem which is no more than an obvious extension or workshop variation** to some piece of the prior art, he **cannot have a monopoly** for his solution whether or not the skilled man would be likely to have known of the prior art in question. On the other hand, if it is found that, **even if he had known of it, the skilled man would not have regarded it as the obvious starting point** for the solution of the problem with which he was confronted, this will usually demonstrate that his discovery was **not an obvious extension or mere workshop variation of that prior art**.

RELEVANT FACTORS			
<b>First in time prevails</b>	<p>In Singapore, it appears that the line drawn by CA in <i>First Currency Choice</i> is <b>at where no one has gone before</b> (and thus the first in time to succeed in invention prevails) as opposed to at where it was obvious to the "person skilled in the art" to try.</p> <ul style="list-style-type: none"> <li>• <i>Trek Technology</i> as well.</li> <li>• ☒ But the problem is that <b>such an approach essentially obviates the need for obviousness inquiry</b>.</li> <li>• ☒ <b>Does not justify you a 20-year monopoly</b>; you <u>already gained a commercial advantage</u> in having a headstart.</li> </ul>		
<b>Well-worth trying test</b>	<table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> <p>It will suffice if it is shown that the skilled but unimaginative addressee finds the solution embodied within the invention well worth trying (<i>Technograph Printed Circuits</i>, per Lord Reid).</p> <ul style="list-style-type: none"> <li>• <b>Worthwhile to what end?</b> → solve a problem</li> </ul> <p>E.g. <i>Merck</i> – 'well worth trying' – product patent of Lovastatin held to be novel but fell on inventive step.</p> <ul style="list-style-type: none"> <li>• Once researcher knew the problem, it became very clear how to extract the impurities using well-known processes. Hence it was well worth trying, and thus obvious.</li> <li>• <i>Ng-Loy</i>: <b>Test may be problematic, but outcome is desirable</b>. Already have patent in statin, seems as though trying to get another bite at the same cherry.</li> </ul> </td> <td style="vertical-align: top; width: 50%;"> <p><b>Viability of test / problems:</b></p> <p><b>What if contribution lies in identifying the problem</b>, after which solution is easily found? In such cases, test would not be useful.</p> <p>Obviousness is established where a solution is found to a well-known problem, and well worth trying test is based on knowing the problem. But <b>problematic in situations where problem is not even known</b>: see <i>Merck</i>.</p> <p>Additionally, in certain types of field such as biotech, where <b>everyone is navigating towards the same objective or direction</b>, such a test would not be viable.</p> <ul style="list-style-type: none"> <li>• Strict approach = nobody would get any patents = defeat incentivisation/objective of patent law</li> </ul> </td> </tr> </table>	<p>It will suffice if it is shown that the skilled but unimaginative addressee finds the solution embodied within the invention well worth trying (<i>Technograph Printed Circuits</i>, per Lord Reid).</p> <ul style="list-style-type: none"> <li>• <b>Worthwhile to what end?</b> → solve a problem</li> </ul> <p>E.g. <i>Merck</i> – 'well worth trying' – product patent of Lovastatin held to be novel but fell on inventive step.</p> <ul style="list-style-type: none"> <li>• Once researcher knew the problem, it became very clear how to extract the impurities using well-known processes. Hence it was well worth trying, and thus obvious.</li> <li>• <i>Ng-Loy</i>: <b>Test may be problematic, but outcome is desirable</b>. Already have patent in statin, seems as though trying to get another bite at the same cherry.</li> </ul>	<p><b>Viability of test / problems:</b></p> <p><b>What if contribution lies in identifying the problem</b>, after which solution is easily found? In such cases, test would not be useful.</p> <p>Obviousness is established where a solution is found to a well-known problem, and well worth trying test is based on knowing the problem. But <b>problematic in situations where problem is not even known</b>: see <i>Merck</i>.</p> <p>Additionally, in certain types of field such as biotech, where <b>everyone is navigating towards the same objective or direction</b>, such a test would not be viable.</p> <ul style="list-style-type: none"> <li>• Strict approach = nobody would get any patents = defeat incentivisation/objective of patent law</li> </ul>
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<b>Commercial success</b>	<p><b>Commercial success per se, as a factor, is not conclusive</b> on the issue of obviousness. <b>However, courts have accorded this factor particular weight in favour of the inventor/patentee</b>, especially in light of a "long felt want" for the claimed invention. It is the courts' view that "in some circumstances commercial success can throw light on the approach and thought processes</p>		

	<p>which pervade the industry as a whole” (<i>Haberman v Jackel</i>, per Laddie LJ; <i>Trek Technology</i>).</p> <p>It is always necessary to distinguish <input checked="" type="checkbox"/> “<b>commerical success</b>” <b>generated genuinely</b> as a result of the invention itself from <input checked="" type="checkbox"/> “commercial success” achieved through clever marketing strategies and promotional campaigns (<i>Ng Kok Cheng</i>).</p> <p>Singapore courts apply this factor quite readily to say that something is non-obvious. But to be applied within certain boundaries.</p> <ul style="list-style-type: none"> <li>• <input checked="" type="checkbox"/> <i>Ng Kok Cheng</i> – inventive step             <ul style="list-style-type: none"> <li>○ Problem + prior art: Screws on lock made it vulnerable</li> <li>○ Claimed invention: Encased lock without screws</li> <li>○ Court held that it was non-obvious.</li> <li>○ <input checked="" type="checkbox"/> The court compared the two and found the invention <b>technically better</b> since it took a long time and required equipment which produces loud noise, thus deterring would-be burglars.</li> <li>○ <input checked="" type="checkbox"/> <b>Amount of time</b>: P conceded that when coming up with invention, he did not spend a lot of time.                 <ul style="list-style-type: none"> <li>▪ Do not assess patentability or obviousness by asking how much time spent in coming up with invention.</li> </ul> </li> <li>○ <input checked="" type="checkbox"/> <b>Commercial success</b>, huge profits in short time. In spite of price differential, it was good enough for people to want to spend the extra.                 <ul style="list-style-type: none"> <li>▪ However, when looking at commercial success, <u>caution: must be attributable to the technical attributes and not publicity.</u></li> </ul> </li> </ul> </li> <li>• <input checked="" type="checkbox"/> <i>Trek Technology</i> – inventive step             <ul style="list-style-type: none"> <li>○ <input checked="" type="checkbox"/> Commercial success</li> <li>○ Problem: Until the P has done it, nobody has done it before therefore must be non-obvious. Not convincing argument.</li> <li>○ Policy: Essentially, <i>Trek Technology</i>, you have created something worthy of protection.</li> </ul> </li> <li>• <input checked="" type="checkbox"/> <i>Muhlbauer</i> – inventive step</li> </ul>
<p><b>Duration of problem</b></p>	<p><b>How long had that problem existed:</b> if the patented invention satisfies a <b>long-felt need in the industry</b>, it can go to show that the invention involves an inventive step (<i>Haberman v Jackel</i>).</p> <ul style="list-style-type: none"> <li>• After all, if the invention was so obvious, why did no one think of it as a solution to a problem?</li> </ul> <p>Conversely, it could be argued that the problem was not that big an issue and people felt that they could live with it and did not actively seek a solution. If that is the case, the satisfaction of a long-felt need would have little value in showing that the patented invention involves an inventive step.</p>
<p><b>Significance of problem</b></p>	<p>A problem which was viewed in the trade as trivial might not have generated much in the way of efforts to find a solution. So an extended period during which no solution was proposed (or</p>
<p><b>Technical prejudice or went against prior teaching</b></p>	<p><input checked="" type="checkbox"/> Defend invention from charge of obviousness by saying that there was a <b>technical prejudice against it</b> (<i>Pozzoli Spa</i>).</p> <ul style="list-style-type: none"> <li>• Invention can lie in finding out that <u>that which those in the art thought ought not be done, ought to be done</u>. From the point of view of the purpose of patent law it would be odd if there were no patent incentive for those who <u>investigate the prejudices of the prior art</u>.</li> <li>• Thus, a patentee who contributed something new by showing that, contrary to the mistaken prejudice, the idea would work or was practical had shown something new, novel and non-obvious.</li> <li>• <b>He had shown that an apparent "lion in the path" was merely a paper tiger.</b></li> <li>• If the patentee merely patented an old idea thought not to work or to be practical, he had contributed nothing to human knowledge and patent protection could not be justified.</li> <li>• The inventive concept was the essence of what was in the claim and was not dependent on any question about a prejudice being overcome.</li> </ul> <p><input checked="" type="checkbox"/> In <i>PLG Research</i>, court found that Dr Mercer proposed a <b>solution which went against all the prior teaching</b>; he found a means of allowing the paths of orientation to intersect and yet create strong oriented junctions. We cannot hold such a discovery to have been obvious. In our judgment, both patents in suit were valid.</p>
<p><b>Relevant fields of technology</b></p>	<p>Additionally, while all prior art are to be considered equally, the reality is such that some are more equal than others; <b>THE NOTIONAL SKILLED PERSON DOES NOT CONSIDER ALL PRIOR ART TO BE EQUALLY INTERESTING</b> (<i>Inhale Therapeutic Systems</i>, per</p>

	<p>Laddie LJ), and the <u>further the prior art is away from the field of technology covered by the claimed invention, the less likely</u> it is for an “intelligent but uninventive person skilled in the art” to close the gaps between the invention and the prior art and thus, the invention is not obvious. (<i>Trek Technology</i>).</p> <ul style="list-style-type: none"> <li>• <b>KEY: ALL PRIOR ART ARE EQUAL, BUT SOME ARE MORE EQUAL THAN OTHERS!!!</b></li> <li>• However, this <b>begs the question</b>: what <i>is</i> a relevant field of technology?             <ul style="list-style-type: none"> <li>○ It appears that the question of what a neighbouring field is is one of <u>fact</u> (<i>Mobius/Pencil Sharpener</i>).</li> <li>○ <input checked="" type="checkbox"/> It is reasonable to expect a skilled person to refer to the state of the art in the <u>general field of technology in which the same problems</u> or <u>problems similar to those in the specific field of the application extensive arise</u> and of which a person skilled in the art must be expected to be aware (<i>Mobius/Pencil Sharpener</i>).</li> <li>○ <input checked="" type="checkbox"/> A <u>document directed at solving the particular problem</u> at issue will be seized upon by the skilled addressee. Its very contents may suggest that it is a worthwhile starting point for further developments. But the same may not be the case where a document comes, say, from a distant and unrelated field (<i>Inhale Therapeutic Systems</i>).</li> <li>○ <input checked="" type="checkbox"/> In <i>Kerber/Wire Link Bands</i>, the EPO held that “zip fasteners” and “wire link bands” could not be viewed as neighbouring fields as they <u>serve different purposes</u>.</li> <li>○ <input checked="" type="checkbox"/> <i>Trek Technology</i>: Dismissed Aladdin key. There was no device available in the market or known generally that could have led a skilled but unimaginative person to invent the ThumbDrive, or to look upon it as the obvious next step in technology</li> </ul> </li> <li>• At the same time, if we are saying that the notional HSR is <u>unimaginative</u>, then should only look at relevant field and not neighbouring fields.</li> </ul>
<p><b>Shortness of time</b></p>	<p>The amount of time spent on coming up with invention is a non-factor (Ng Kok Cheng).</p>
<p><b>Simplicity</b></p>	<p><u>Simplicity is no bar to inventiveness</u>: the fact that an invention is simple does not mean that it is obvious; even a ‘Lilliputian’ step can amount to an inventive step (<i>First Currency</i>).</p> <p>Conversely, <u>inventiveness is not synonymous with complexity</u> (<i>Genelabs</i>).</p>
<p><b>Preliminary conclusion</b></p>	<p>Based on the legal principles espoused and applied above, most of the factors appear to lean towards a finding of (OBVIOUSNESS/NON-OBVIOUSNESS).</p>

However, it should be noted that the subjectivity of this inquiry is evident from how the *First Currency Choice* case was upheld in Singapore but dismissed by the EPO; it would appear that the various underlying policy considerations play an important role in determining the inventive step requirement.

<p><input checked="" type="checkbox"/> <b>Non-obvious</b></p>	<p><input checked="" type="checkbox"/> <b>Obvious</b></p>
<p><b>Encouraging innovation:</b> The general policy of patents is to <u>reward and encourage inventors without inhibiting improvements of existing technology by others</u> (Hoffman LJ in <i>STEP v Emson</i>).</p> <p><b>Product better than those in state of the art</b> (distinguished from <i>Merck</i>).</p>	<p><b>Protecting public interest:</b> The public should not be prevented from doing anything which was merely an obvious extension or workshop variation of what was already known at the priority date.</p> <p><b>Is the product better than those in the state of the art?</b> If court were to grant a monopoly to the product, it is on the basis that the product would benefit society.</p> <ul style="list-style-type: none"> <li>• Hence in <i>Merck</i>, the fact that the purer form of lovastatin had no enhanced therapeutic effects than the original may have swayed the court to find that it was obvious.</li> </ul> <p><b>Did patentee have patent in the original product? Does the patentee want a patent to extend IP rights?</b></p> <ul style="list-style-type: none"> <li>• In <i>Merck</i>, the patentee already have patent in statin; application appears to be motivated by desire to get another bite at the same cherry.</li> </ul>

### 3. INDUSTRIAL APPLICATION (S 16)

[1] *Section 16(1)* of the Patents Act provides that an invention shall be taken to be capable of industrial application if it can be made or used in any kind of industry, including agriculture.

<b>SHOULD POTENTIAL USE BE ALLOWED UNDER INDUSTRIAL APPLICATION LIMB?</b>	
<input checked="" type="checkbox"/> <b>Starting position: Yes</b>	<input type="checkbox"/> <b>Argue: No</b>
<p>The position in Singapore is <b>unclear</b>: In <i>Merck</i>, the SGHC (at [46]) took the view (in obiter) that it was <b>not necessary to apply the doctrine of utility</b> into the law on industrial application, and that the <u>plain words in s 16(1)</u> should be given effect to.</p>	<p>Although a <b>plain reading</b> of s 16(1) could suggest that the requirement is satisfied so long as the subject matter of the patent has <u>potential use in industry</u>, it is submitted that the <b>better view is to require utility to be present</b> at the time of the patent application (<i>Chiron Corp v Murex</i>). <i>Merck</i> should not be followed as: (1) the suggestion was strictly obiter; (2) the idea of merely having “potential” is very nebulous; and (3) the focus should be on the word ‘industry’ and it is inherent within the concept of industry that the invention has a immediate and known use.</p> <p>What is the significance of allowing “potential use”? If “potential use” is sufficient, it will not be necessary at the time the patent application is filed to show that the subject matter has actual use in some industry. This has some <u>significance in patents for gene sequences</u> because it would be possible to apply for a patent for a gene fragment before the researcher unravels the use or function (if any) of the fragment.</p>

[2] **Express limitation:** Section 16(2) provides that “an invention of a **method of treatment of the human or animal body** by surgery or therapy or of diagnosis practised on the human or animal body **shall not** be taken to be capable of industrial application.”

- It has been said that it is a ‘legal fiction’ that methods of treatment and diagnosis are not capable of industrial application. The real reason is that it is not in the interest of the public to have methods of treatment and diagnosis controlled by a few.

[3] Section 16(3) provides that **products used in a method of treatment or diagnosis** can be capable of industrial application.

## INFRINGEMENT

### 1. CLAIM CONSTRUCTION

#### 1.1 SINGAPORE'S APPROACH

##### RELEVANT PRINCIPLES

##### [\*] Equivalence clause:

[1] First, it is necessary to construe the patent claims to determine whether the defendant's product or process falls within its scope. The finding of infringement based on claim construction is a **question of fact** (*First Currency (SGCA)* at [82]).

[2] The scope of the patented invention is found in the patent claims (s 25(5)(a)).

- **Recourse to descriptions and drawings:** Where the ordinary meaning of the words in the patent claim is not clear, recourse may also be sought to the **description** and any **drawings** found in the specifications (s 113(1)).
- In *Ng Kok Cheng*, the relevant patent claim required that there be an outer casing 'enclosing' the main body. The word 'enclosing' was ambiguous as it could mean shut on all sides (dictionary meaning), but it was also possible for it to take on a less encompassing meaning. The court interpreted the word 'enclosing' with the help of the drawings, and held that the plaintiff's invention was not limited to a device which was completely fitted within out casing.
  - It is legitimate in approaching the construction of the claims to **read the specification as a whole**. This provides the necessary background and in some cases the meaning of the words used in the claims may be affected by or defined by what is said in the body of the specification.
  - Looking up a disputed word in a **dictionary may be a useful starting point but it is not determinative**. The dictionary gives only the a contextual meaning whereas the court is interested in the meaning of the word in the context of the patent (*Ng Kok Cheng* at [87]).

[3] When construing the patent claims, the court will adopt a **purposive approach** (*FE Global (SGCA)* at [14]). The question is essentially whether the notional addressee would understand that **strict compliance with the language of the particular claim was intended** to be an essential requirement of the invention so that any variant would fall outside the monopoly claimed, even though it could have no material effect upon the way the invention worked (*Catnic; Merck*).

- It depends not only upon the words the author has chosen but also upon the **identity of the audience** he is taken to have been addressing and the knowledge and assumptions which one attributes to that audience (*Kirin-Amgen*; approved of in *Trek*).

[4] **Not entitled to re-write claim:** However, the adoption of a purposive construction does not mean that the court is entitled to disregard clear and unambiguous words that describe the claim (*Bean Innovations v Flexon (SGCA)* at [27]). The court is **not entitled to rewrite or amend the patent claim** under the guise of construction (*Merck (SGHC)* at [54]).

[5A] **Improver 3-Step test/Protocol questions:** A formulation of this purposive approach was given by Lord Hoffmann in *Improver v Remington* (applied in *Merck*). He approached this issue by asking the following series of questions:

**Step 1 – material effect?** Does the **variant have a material effect** upon the way the invention works? If yes, the variant is outside the claim. If no –

- The correct approach is to describe working of invention at a level of generality described in claims
- In *Improver*, the difference between the devices is that while both can pluck hair D's device pulled hair out in a painful manner. On the facts, husband acted on wife's complain to create a device which pulls out less hair at one go. Less pain held to have no material effect but **arguably material effect?**
- In *Merck*, the patent was for a purification process for producing a compound (lactone) with a dimeric impurity of less than 0.2%.
  - The patent claim made reference to the gradual addition of water to a particular acid until crystallisation of the lactone was effected. This addition of water was identified by the SGHC to be an essential integer of the claim.
  - The defendant's product was also lactone with a dimeric impurity of less than 0.2%, but this lactone was produced by a purification process which involved a removal of water through reverse osmosis. The SGHC concluded that the defendant's process contained variants which fell outside the patent claim – stage (1) of *Improver* test. Thus, **no infringement**.
- In *Genelabs*, the claim in the patent covered a sequence of amino acids which raised a specific immunological reaction with the antibodies against a HIV-2 retrovirus. The part of this sequence which raised this specific reaction was the 18mer sequence.
  - The defendant's test kits contained the same 18mer sequence, but it also had an extra 5 amino acids (23mer) which were not found in the patent claim. The trial judge had found that 23mer was no more than a sticking and stabilising agent for the important

18mer. In other words, the 23mer was an immaterial variant. The SGCA found no sufficient basis to interfere with the trial judge's conclusion of **infringement**.

**Step 2 – obvious or not?** Would this (ie the variant had no material effect) have been **obvious at the date of publication of the patent** to a reader skilled in the art. If no, the variant is outside the claim. If yes –

**Step 3 – strict compliance?** Would the readers skilled in the art nevertheless have understood from the language of the claim that the patentee intended that strict compliance with the primary meaning was an essential requirement of the invention. If yes, the variant is outside the claim.

- **☒ Approximation:** The notion of strict compliance with the conventional meanings of words or phrases sits most comfortably with the use of figures, measurements, angles and the like, when the question is whether they allow for some degree of tolerance or approximation (*Kirin-Amgen*).
- **☒ Approximation:** In *Catnic*, the patent was for steel lintels used in construction of buildings. The plaintiff's beam involved a support member which must "extend vertically" to the ground. The defendant's beam was tilted by 6 degrees. The question was whether the patentee should be held to his own words that his invention was one that was "extending vertically" such that there would be no infringement as the defendant's invention extended not vertically but at an angle of 84 degrees.
  - On the patent issue, it was held that the patent was valid and that the DH2 lintels fell within C's claims, but that the rear support members of the DH4 lintels did not "extend vertically" and thereby avoided textual infringement of those claims. However, Whitford J further held that the defendants had **taken the "pith and marrow" of the claim** and that accordingly the manufacture of DH4 lintels constituted an infringement of those claims.
  - **Look at function?** Lord Diplock adopted a purposive interpretation and held that "extending vertically" was in context capable of meaning 'near enough to vertical to enable the back plate to perform satisfactorily all the functions that it could perform if it were precisely vertical'. It would be obvious to a builder that the patentee did not intend to make exact verticality of the back plate an essential feature of the invention.
  - **Infringement.**
- **☒ Strict compliance:** In *Improver*, the plaintiffs sued for infringement of their patent for 'Epilady' hair removal device. Patent claim: helical steel spring which removed hair when rotated at high speed. The defendants produced a rival device ("Smooth and Silky"), which consisted of a "plastic elastomeric rod with slits cut in", which also plucked hair from the skin.
  - "Helical spring" (vs rubber rod with slits) cannot be given a wide generic construction.
    - Helical spring cannot be **reasonably approximated** as rubber rod
      - This is not a case like Catnic in which the angle of the support member can be regarded as an approximation to the vertical. The rubber rod is not an approximation to a helical spring. Df's product is a different thing which can in limited circumstances work in the same way HSR would be entitled to think that patentee had good reasons to limit himself, as he appears to have done, to a helical coil.
    - Is there **any reason why patentee would restrict it in such way?**
      - Patentee never experimented with rubber rod; rubber rod also had its own problem
      - Helical spring double loop – rubber rod cannot go double loop
  - Thus, **no infringement**.
- **☒ Strict compliance:** In *Bean Innovation*, the plaintiff had a patent for a mailbox assembly with a central locking system for individual mailboxes. The plaintiff argued that there was infringement because the **defendant's product performed the same function and his patented product**. The SGCA held that to construe the claim functionally would be tantamount to disregarding what is stated in the claims. The plaintiff's patent claim expressly referred to the use of 'a matrix of orthogonal bars' to lock and unlock the postman trap drop in the mailbox. On the other hand, the defendant's mail box used stopper screws to do the locking and unlocking. The conclusion was that there was **no infringement**, even though the product performed the same function as the patented product.
  - Court rejected the **functional equivalent argument** because such an approach would be tantamount to disregarding what was stated in the claims. Court thus held that claim language was clear and unambiguous and must be given their natural and ordinary meaning.
- **☒ Approximated:** While it is important to avoid taking an overly high level of abstraction of the essential features of the invention claimed through a purposive construction, it is equally important not to engage in the kind of meticulous verbal analysis in which lawyers are too often tempted to indulge (*Catnic*, per Lord Diplock).
  - *Ng Kok Cheng*: Court rejected a literal interpretation of the phrase "passing through the main body" in feature (c) and held that the words really meant "passing into the main body". Court reached this conclusion after taking into consideration the drawings of the invention and the drawings of the prior art, which showed that a **literal interpretation would lead to the invention becoming unworkable**, which could clearly not be the intention of the plaintiff.

- Same approach taken towards interpretation of the word “enclosing” in feature (f). HC held that dictionary meaning not necessarily true. Looked at drawings and accepted P’s submission that adopting dictionary meaning would lead to absurd result because if main body fully enclosed, the key cylinders would be inaccessible, and this was not how the invention was meant to work.
- **☒ Purpose:** In *FE Global v Trek Technology*, CA avoided the approach of adhering too literally to the claim language when construing scope of patent.
  - P claimed that patent protected its ThumbDrive product. One important feature of the product was that it could be directly plugged to and unplugged from a USB socket in the computer.
  - D claimed that patent failed to disclose such direct plugging and unplugging because a **skilled reader of the patent would assume that a cable would be required to connect the patented device to the computer**.
  - CA adopting purposive construction held that since the patent specification did not expressly refer to a cable between the device and the connector or for that matter a captive cable, the patent thus disclosed a “unitary data storage device with an integrated USB plug to enable direct connection to the USB points of computers without the need for a captive or detachable cable”.
  - Arguably, the **opposite conclusion could be reached** by the same argument: since the patent specifications did not expressly refer to a direct plugging and unplugging from a USB socket in the computer, this essential feature of the ThumbDrive was not disclosed in the patent.
- **☒ Purpose:** CA in *First Currency* took a higher level of abstraction (the functional concept of the invention) when he held that the automatic “look up-and-associate” feature was the essential integer in the patent in suit. Thus, even though patent claims did not expressly refer to an automatic currency conversion system, Court held that any ambiguity was resolved by the accompanying description which described the invention “as a method and system for determining the currency of a cardholder at the point of sale automatically, using only a payment card’s details”.

On the other hand, a negative answer to the last question would lead to the conclusion that the patentee was intending the word or phrase to have not a literal but a figurative meaning (the figure being a form of synecdoche or metonymy) denoting a class of things which included the variant and the literal meaning, the latter being perhaps the most perfect, best-known or striking example of the class.

[5B] However, the courts have clarified that the *Improver* questions are only guidelines, more useful in some cases than in others. The “Catnic principle” is the ‘bedrock of patent construction’ that is universally applicable (per Lord Hoffmann in *Kirin-Amgen* at [52]).

- Prof Elizabeth Ng: The *Improver* questions are better to use in cases **involving mechanical inventions**. They are harder (or awkward) to apply when dealing with software / chemical patents / genetics type of cases.

[6] **Policy:** Patent construction determines the scope of the patentee’s monopoly and the process is underpinned by **conflicting public policy considerations**: on one hand, there is a need for certainty in the scope of rights so that others may know precisely where not to overstep (narrow construction camp); on the other, there is a need to uphold the full extent of the monopoly granted by the patent which the patentee rightly deserves in the interest of fairness and justice (broad construction camp).

## 1.2 US DOCTRINE OF EQUIVALENCE

[1] It is clear that the purposive approach in Singapore is not the same as the American “doctrine of equivalents”. Under this doctrine, there is infringement of the patent if the defendant’s product performs substantially the same function in substantially the same way to achieve the same results.

[2] However, it is unlikely for the courts in Singapore to adopt the doctrine of equivalence. To construe claims wholly functionally would be tantamount to disregarding what is stated in the claims. The words used in the claims must be given their natural and ordinary meaning (*Bean Innovations*).

## 2. INFRINGING ACT (S 66)

### 2.1 PRODUCT PATENTS: s 66(1)(a)

**Exclusive rights:** *Section 66(1)(a)* confers on the patentee the exclusive right to **make**, to **dispose** of, to **offer to dispose** of, to **use**, to **import** the **product** or to keep it whether for disposal or otherwise the patented product, and anyone who does any of these acts in Singapore without his consent infringes the patent.

- Knowledge of infringement is irrelevant in determining liability.
- However, innocence affects remedies available: no damages or account of profits (probably injunction) (s 69).

**INFRINGEMENT BY MAKING OR REPRODUCTION**

Approach taken by the courts for infringement by making or reproducing patented product is to **(1) construe the patent specification** to determine the scope of its protection before making a **(2) comparison** between the patented product and the infringing product.

**Issue:** Whether having regard to the nature of (THE PATENTED ARTICLE), the D’s act of repairing (THE PATENTED PRODUCT) constitutes making it within the meaning of s 66(1)(a), Patents Act, thus leading to patent infringement.

*\*Look at nature of patented product + D’s act*

The “inventiveness” of the patented product is assessed by a proper construction of the patent specification (*United Wire*). Here, the “inventiveness” of P’s patented \_\_\_\_.

- **☑ Since the inventiveness of P’s product lies in its entirety**, much like *United Wire Ltd’s sifting mesh screens*, D’s repair of the product would be considered as “making” it within the meaning of s 66(1)(a) (*United Wire*).
  - In *United Wire*, the “inventiveness” of P’s patented **screens was in the final assembled article comprising both the frame and the mesh**. Consequently, HL held that **D had made the patented product** and they did so by repairing or reconditioning the frame and then used the frame to make a screen in exactly the same way as if they had the frames as components from a third party. Patent infringed.
- **☑ Since the inventiveness of product resides wholly in one particular part**, much like the protective cage in *Schutz’s intermediate bulk containers*, and since the repair only involved other parts of the product while retaining \_\_\_\_, such an act would not be considered as “making” the patented product (*Schutz v Werit*).

**INFRINGEMENT BY DISPOSAL OR OFFER TO DISPOSE**

[1] The phrase “to dispose of” was held to be equivalent to the phrase “**putting on the market**” in Art 29(a) of the Community Patent Convention and must, therefore, at least include selling (*Kalman v PCL Packaging*). A similar interpretation of the phrase under s 66(1)(a) is likely to be adopted by Singapore courts.

[2] The concept of disposal is wide enough to **cover the act of a distributor serving as a conduit** between the maker/seller of the patented product and the ultimate purchaser (*Genelabs*).

[3] Additionally, infringement will ensue in respect of **an offer made in Singapore** to dispose of the patented product **either within or outside Singapore** (*Genelabs*).

- Court held that it was not necessary for 2D to have disposed of the kits to the ultimate purchaser in order to attract liability under s 66(1)(a). The fact that it acted as the conduit between the seller/manufacturer and the ultimate buyer was sufficient for a finding of patent infringement under s 66(1)(a).

[4] NB: If there is sufficient bargaining power, buyer may contract for complete **indemnity** from supplier (*Mainline*).

**Disposal through website dissemination:** If patented product sold via Internet, where does the infringing act occur?

<b>Trek Technology</b>	<b>Weir Warman</b>
<p>In <i>Trek Technology</i>, the court adopted Jacob J’s test in <i>Euromarket Designs</i> in looking at <b>whether a reasonable user looking at the websites would understand that an offer to dispose of the DOK was being made in Singapore</b>.</p> <p>On the facts, it is clear from the evidence that the primary M-Systems website provides an avenue for the user in Singapore to purchase the DOK <u>with the link to the FE Global/Electec websites</u>. There is thus an “offer to dispose” of the DOK in Singapore within <i>s 66(1)</i>.</p>	<p>In <i>Weir Warman</i>, VK Rajah adopted the alternative approach in <i>800-Flowers</i> that the idea of “use” within a certain area would seem to <b>require some active step</b> in that area on the part of the user that goes beyond providing facilities that enable others to bring the mark into the area.</p> <ul style="list-style-type: none"> <li>• Of course, if persons in the United Kingdom seek the mark on the Internet in response to direct encouragement or advertisement by the owner of the mark, the position may be different; but in such a case the advertisement or encouragement in itself is likely to suffice to establish the necessary use.</li> </ul>

## 2.2 PROCESS PATENTS AND USE OF THE PROCESS: s 66(1)(b) – KNOWLEDGE REQUIRED!

**Exclusive rights:** With regards to a process patent, s 66(1)(b) confers on the patentee the exclusive rights “[to use the process](#)” and “[to offer to it for use in Singapore](#)”.

- Uses the process when he knows, or it is obvious to a reasonable person in the circumstances, that its use without the consent of the proprietor would be an infringement of the patent. **(First limb)**
- Offers the process for use in Singapore when he knows, or it is obvious to a reasonable person in the circumstances, that its use without the consent of the proprietor would be an infringement of the patent. **(Second limb)**
- NB: In this case, [actual or constructive knowledge is required](#) (cf strict liability for other types of infringement). The [second limb can be used to catch the person who made the offer](#). The [first limb can be used to catch the person who uses the process](#).
- It is clear that the prohibited act of “use” of process or “offer for use” [must be committed within Singapore](#).

## 2.3 ANY PRODUCTS OBTAINED DIRECTLY FROM THE PROCESS: s 66(1)(c)

**Exclusive rights:** Where the invention is a process, he [disposes of](#), [offers to dispose of](#), [uses](#) or [imports](#) any product obtained directly by means of that process or keeps any such product whether for disposal or otherwise

[1] By confining infringement to products '[directly obtained](#)', s 66(1)(c) of Patents Act appears to have altered the previous common law position that there was infringement where an imported product had been obtained directly or indirectly by means of a patented process provided always that the use of the patented process had been substantial: *Pioneer Electronics v Warner Music*.

[2] Such a product did not cease to be the product so obtained from the patented process even if it was subsequently subjected to further processing [so long as it did not lose its identity and retained its essential characteristics](#), a matter which was a [question of fact and degree](#): *Pioneer Electronics*.

- In *Pioneer Electronics*, CA held that P's process patent had not been infringed because D's optical discs were not the immediate or direct product obtained by the claimed process: [the result of three further steps of product led to a material change in the final product](#).

[3] **Reversal of burden of proof:** If the patent infringement proceeding [relates to a process patent](#) by which the [\(a\) product to be obtained is new](#) or [\(b\) a substantial likelihood exists that the product is made by the process](#) and the proprietor of the patent has been [unable through reasonable efforts to determine the process actually used](#), the burden of proving that a product is not made by the patented process is transferred to the alleged infringer (s 68, *Patents Act*).

- According to HC in *Merck*, [a “new product” includes anything not known in the state of the art, including improvements](#). Thus, if the product claimed has been held to be invalid for a lack of novelty, s 68 is not activated and burden of proof remains on P **unless** it can be shown that there [exists a substantial likelihood](#) that the product is made by the process and the proprietor of the patent has been unable through reasonable efforts to determine the process actually used.

## 3. REMEDIES (S 67)

Under s 67, for infringement proceedings, claims may be made for:

- for an [injunction](#) restraining the defendant from any apprehended act of infringement;
- for an [order for him to deliver up or destroy any patented product](#) in relation to which the patent is infringed or any article in which that product is [inextricably comprised](#) or any material and implement the predominant use of which has been in the creation of the infringing product;
- for [damages](#) in respect of the infringement;
- for [an account of the profits](#) derived by him from the infringement; and
- for [a declaration that the patent is valid and has been infringed](#) by him.

## 4. DEFENCES

NB: A defendant who is sued for patent infringement will almost invariably challenge the grant of the patent as a first line of “defence” (strictly, a [counterclaim](#)).

- See s 80 PA which sets out grounds of patent revocation (pg 18 above). Mainly, consider if requirement of patentability (novelty, etc.) have been met and if there has been sufficient disclosure.

### 4.1 GENERAL DEFENCES: [S 66\(2\)](#)

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- **Private and non commercial use:** [Section 66\(2\)\(a\)](#) provides that if an act is done [privately](#) and for [purposes which are not commercial](#), there is no patent infringement.
  - See also [s 66\(2\)\(c\)](#), which deems an act which consists of the extemporaneous preparation of a medicine for an individual in accordance with a doctor’s prescription given by a registered medical or dental practitioner as non infringing.
- **\*\*\* Experimental use:** [Section 66\(2\)\(b\)](#) provides that an act which is done for [experimental purposes](#) relating to the subject matter of the invention does not constitute an infringement.
- **Use of patented product or process in exempted aircraft and ships:** See [s 66\(2\)\(d\)](#), [66\(2\)\(e\)](#), [66\(2\)\(f\)](#)
- **“Bolar” exemption:** [Section 66\(2\)\(h\)](#) permits the use of a patented invention to support any application for [marketing approval](#) for a pharmaceutical product.
  - Query if the extra protection given to pharmaceutical products is justified?
    - On one hand, it gives greater benefits (e.g. greater market size, greater control...) to pharmaceutical companies. It might encourage these companies to innovate more and develop new pharmaceutical products.
      - Considerations: incentive & reward for pharmaceutical companies.
    - On the other hand, patient access may be undermined if there are limited supplies of the drugs.
      - Considerations: consumers want to be able to get pharmaceutical products; public health concerns.
      - Mitigated by [s 66\(2\)\(i\)](#); also consider the possibility of compulsory licensing, government emergency situations ([s 55, 56](#))
      - Do other (non IP specific) benefits lie in other aspects of the USSFTA?

### 4.2 COMPULSORY LICENCES: [S 55](#)

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Compulsory licences: At times, it may be necessary to oblige the patent owner to grant licences to others to exploit the invention if he is not prepared to do so.

- Under [s 55\(1\)](#) PA, any interested person may apply to the court for the grant of a licence under a patent on the ground that the grant of the licence is [necessary to remedy an anti-competitive practice](#).
- Under [s 55\(2\)](#) PA, the court may determine that the grant of a license is necessary to remedy an anti-competitive practice if:
  - there is a [market](#) for the patented invention in Singapore;
  - that market is [not being supplied](#) or is [not being supplied on reasonable terms](#); and
  - the court is of the view that the proprietor of the patent has no valid reason for failing to supply that market with the patented invention, whether directly or through a licensee, on reasonable terms.
- Under [s 55\(7\)](#) PA, the powers of the court to grant compulsory licences must be exercised “with a view to securing that the inventor or other person beneficially entitled to a patent shall **receive reasonable remuneration** having regard to the economic value of the licence”.

### 4.3 GOVERNMENT USE: [S 56](#) (VERY LIMITED)

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Under [s 56\(1\)](#) PA, the government (and any party so authorised) may do anything in relation to a patented invention:

- for a [public non commercial purpose](#); or
- for or during a [national emergency](#) or other circumstances of extreme urgency, and anything done by virtue of this section shall not amount to patent infringement.

If the government does so, it has a [duty to inform the patentee](#) ([s 61](#) PA), and shall [pay such remuneration to the patentee as may be agreed](#) ([s 62\(1\)](#) PA).

### 4.4 RIGHT TO BRING PROCEEDINGS: [S 76\(3\)](#)

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The patent proprietor may commence infringement proceedings [only after the grant of patent](#) has been made ([s 76\(3\)](#)).

However, his **rights accrue** as of the **date of publication** of patent application (s 76(1)).

- As such, he can sue for infringing acts which took place after date of publication of patent application, although he may only commence proceedings after the grant of patent has been made.

## BREACH OF CONFIDENCE

Where there is **no underlying contract**, the elements required to establish a breach of confidentiality are: the information must have the **necessary quality of confidence** about it, the information must have been **imparted in circumstances importing an obligation of confidence** and there must be an **unauthorised use of that information to the detriment of the party communicating it** (*X v CDE*).

### 1. NECESSARY QUALITY OF CONFIDENCE

#### [1A] Types of information:

- Information of commercial value (*Vestwin*)
  - Customers list, may not be technical in nature but of great value
  - In *Vestwin*, court held that the documents were confidential in nature because they contained information relating to, inter alia, the plaintiffs' financial affairs, management procedures and trading practices. It was immaterial that the documents had not been marked as confidential.
- Government information (*AG v Guardian Newspapers* ('Spycatcher' case))
- Personal information (*X v CDE*)
  - Is the law of confidence meant to be a means of protecting the right of privacy?
  - cf UK Human Rights Act 1998, Campbell

[1B] Information will possess the quality of confidence so long as it remains "relatively secret" or relatively inaccessible to the public as compared to information already in the public domain (*Invenpro*).

- This is primarily a **question of public accessibility**. Absolute novelty or secrecy is not the touchstone.
  - The public domain is territorial in nature and whilst overseas exposures cannot be ignored, it must not be assumed that what is in the public domain overseas is necessarily in the public domain in Singapore or *vice versa*. That said, publication or exposure overseas is relevant where the information is in fact thereby readily accessible to the public in Singapore.
- In deciding whether information is readily accessible, the court will have regard to the degree of exposure (how many times the information has been made available) as well as the extent to which that exposure makes the information readily accessible to interested members of the public.
- Ultimately, the question is one of **fact and degree**.
- In *PH Hydraulics*, although the plaintiff had published the GA drawings in its operating manuals and had sent out soft copies of its drawings, these were issued only for the limited and specific purpose of its customers' use and consideration. No further widespread dissemination occurred, so the five GA drawings **remained as confidential information**.

[2A] Information **does not have to be inventive** to possess the necessary quality of confidence (*Invenpro*). To endow such information with confidentiality requires the **product of some amount of labour and effort** such that any other member of the public will have to go through a similar process of effort and labour to reach the same destination (*Coco v Clark*).

[2B] **Mere simplicity of the idea is not fatal** to the information being confidential (*Coco v Clark*; *QB Net*).

[3] **No specificity requirement but has to be sufficiently well-developed**: There is **no requirement** that the **information must exist in any particular form** or that it be **recorded in some material or permanent form**. However, a plaintiff in an action for breach of confidence must **identify with precision** the particular information which he claims confidentiality over (*Stratech Systems*).

POLICY CONSIDERATIONS	
<p>The court seeks to <b>uphold the obligation of the free contracting parties</b> to a contract of service to honour their contractual obligations (<i>Tang Siew Choy</i>).</p>	<p>On the other hand, the court seeks to <b>respect the rights of servants to advance in their chosen trade and profession</b>, and in this connection to promote their own <b>private interest</b> by <u>changing employment</u>.</p> <p>Also to promote the <b>public interest</b> by better use of the servants' personal aptitudes, <u>experience and skill</u> (<i>Tang Siew Choy</i>).</p> <p>Courts also believe that <b>competition</b> is, in general, a good thing (<i>Invenpro</i>).</p>

- Relevant factors:
  - Whether the information (if said to embody a new idea) is realisable in actuality
  - whether it has been developed to the point where it acquires some commercial attractiveness.
  - Ultimately, it is suggested that what is needed is for the claimant to show that the information has been developed to the point where it can be defined with sufficient objective certainty such that the defendant can understand the case being put to him.
- An oral idea can be protected under the law of breach of confidence if “the content of the idea was clearly identifiable, original, of potential commercial attractiveness and capable of being realised in actuality” (*Fraser v Thames Television*).
- Information: Law of confidence does not protect confidential information as such; subject-matter is not the information as such. Courts are generally wary of granting proprietary rights to information. The law of confidence is protecting that obligation of confidentiality between P and D. This is to be contrasted against copyright, which protects the subject-matter. Copyright recognised as a species of personal property by legislature.
- In *Stratech Systems Ltd v Nyam Chiu Shin*, the Court of Appeal found that there was no specificity in Stratech’s pleadings or evidence which showed that Nyam, Wong and Guthrie had taken confidential information from its computers.
  - It was too sweeping to say that password-protected information had to be confidential information.
  - The fact that the data in the computers was needed to carry out maintenance work did not establish its confidential nature.
  - Furthermore, Stratech had only removed V116 from its computers once it stopped providing post-warranty maintenance for VEPS. This went against its contention that the information remaining in the computers was confidential

[4] Information can be confidential as a whole even though the component parts are in the public domain (*QB Net*).

- The fact that all the individual units of equipment that are employed in a particular operation may be articles that can be obtained in the general market and the fact that systems are well known to those concerned in whatever sort of activity is involved, **does not mean** that there cannot be some degree of confidentiality about the way in which they are used to achieve a particular result.
- In *QB Net*, court held that while the components of the QB House system may not be confidential in themselves, the manner in which they were combined and the technical “know-how” in relation to its operation can potentially be confidential in nature. Eventually held that it was not confidential because 10-min-haircut concept was unmistakably in the public domain.

[5] Generally, the law of confidence will not protect ‘trivial tittle-tattle’ (*Coco v Clark*).

- In theory, such a limitation exists. However, courts have never really exercised this exception given the subjectivity of the ‘trivial’ yardstick.

**Issue:** Would documents marked as ‘confidential’ have the necessary quality of confidence about it?

[1] The issue of confidentiality is to be **ascertained by reference to the substance of the information** for which protection is sought. Thus, the mere fact that a document has been labelled “confidential” will not automatically confer confidentiality on it if it has been made generally available.

[2] Conversely, the mere failure to label a document “confidential” should not detract from its confidential nature (if it is indeed the case) (*QB Net* at [96]).

[3] Similarly, it would be too sweeping to say that password-protected information had to be confidential information (*Stratech (CA)*).

## 2. IMPARTED IN CIRCUMSTANCES IMPORTING AN OBLIGATION OF CONFIDENCE

### 2.1 DIRECT RECIPIENTS

#### [1] Subsistence of the obligation (*Invenpro*):

Since there was no contractual relationship between \_\_\_\_ and \_\_\_\_, P's assertion of confidentiality relied on the equitable obligation of confidence.

- **CONTRACT:** Where **there is a contract**, an obligation of confidence may be imposed either **expressly** (non-disclosure agreement) or **impliedly**.
  - **Express:** Where there is an employment agreement governing the relationship of parties at the material time as employer and employee, any obligation of confidence owed would therefore be set out by the express terms in that agreement (*PH Hydraulics*).
    - That such a restrictive covenant of confidentiality would be enforceable post-employment against the employee, thus ensuring that the employer's confidential information remained secret, gives force to the concept of freedom of contract.
    - There would **not be any additional implied or equitable duty of confidence post-employment arising over and above what was already expressly stipulated** in the contractual confidentiality clause (*Man Financial*; *PH Hydraulics*).
  - **Implied:** Common sense
- **EQUITY:** **Disclosure in business context raises a rebuttable presumption**. This flows from the 'reasonable bystander test' proposed.
  - Megarry J in *Coco v Clark*: Equity would intervene to impose an obligation if the circumstances are such that **any reasonable man standing in the shoes of the recipient of the information would have realized that, upon reasonable grounds, the information was imparted to him in confidence**.
    - Courts are very willing to imply an obligation of confidence when confidential information of commercial value is given to a person in a commercial setting, for example, during business negotiations:
    - In *Stratech Systems v Guthrie Properties*, the SGHC imposed an obligation of confidence on the Df who was given confidential information relating to a car park system during business negotiations for the system to be installed in the Df's building.
    - In *Haw Par Brothers v Jack Chiarapurk*, the CA imposed an obligation of confidence on the Df to whom confidential information was given for the purpose of a joint venture with the Pf. In such situations, it would be difficult for the Df to argue that he did not realise that the information was imparted to him in confidence, albeit in the absence of an express obligation of confidence.
  - **Even where there is a contract between the parties**, equitable obligations may still arise quite independently of the contract. These include fiduciary obligations as well as equitable obligations of confidence.
  - In **non-contractual situations**, an obligation of confidence may arise in equity by applying principles of good faith and conscience.

**Issue:** What is the relevance of marking document 'confidential'?

- In *Stratech*, the plaintiff's documents disclosed to the defendant were marked "Confidential" and "Patent Pending." The HC held that the defendant received the information in circumstances which imposed an obligation of confidence.
- Note: Mere labeling does not automatically impose an obligation: *QB Net*.

### 2.2 INDIRECT OR THIRD-PARTY RECIPIENTS – REQUIRE KNOWLEDGE!

[1] Where the defendant is an indirect recipient of the confidential information, **equity will intervene** to impose an obligation of confidence if the defendant received the information with knowledge of its confidential nature.

- Thus, in *QB Net*, the court held that assuming that the documents were confidential in nature, it could be said that the second defendant had received them as a third party and under circumstances which gave rise to an obligation of confidence. This was because the second defendant had actual knowledge of their confidential nature.
- In *PH Hydraulics*, court held that as an indirect recipient of the five GA drawings and knowing their confidential nature, **equity** imposes on the first defendant an obligation of confidence. This obligation bound the first defendant from the moment it received the five confidential GA drawings from the second defendant.

[2] In *Invenpro*, a stricter test was conceived by the High Court: D must have received the information with knowledge of the breach by the direct recipient. This is because equity should only intervene where there is *mala fides*, which is present only where there is a breach.

**Issue:** What if D initially did not know of the breach of confidence but subsequently acquired knowledge?

[1] If a third party is willfully blind to the confidential nature of the information that he has received, an obligation of confidence will be imposed on him (*Vestwin*).

[2] An **innocent indirect recipient of confidential information** will have an obligation of confidence placed upon him from **the moment that he is put on notice** about the nature of the information (*Vestwin*).

[3] Equity will not intervene where conscience of defendant has not been tainted (*Invenpro*).

- It is not in every case where D receives a letter of warning from lawyer that equity imposes obligation.
- When you have a letter of warning, you may not have to immediately stop. You just assess. If assessment reveals no breach, you don't have to stop because you believe that you have a defensible position.

## 'TAKERS' OF CONFIDENTIAL INFORMATION - NO RELATIONSHIP BETWEEN PARTIES

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[1] **Taking of information:** By extending *Megarry's* 'reasonable man' test to the 'taker', an obligation of confidence arises where confidential information had been **taken by illegal means** (*Vestwin*) or where it had been **received or learned in such circumstances** that a duty of confidentiality arises (*X v CDE*).

[2A] If a **stranger acts legally** in obtaining information, **no obligation** of confidence will arise (*Malone v Commissioner of Metropolitan Police*).

- Thus in *Malone*, information obtained through phone-tapping, which was of a legal type, would give rise to no obligation of confidence. Megarry J stated that in such a situation, the **mode of communication is a matter of choice**. If the plaintiff knows that speaking over the telephone is not a secure mode, then he must accept the risk that the information to get to somebody else. Accordingly, there is no quality of confidentiality in information that is passed over such insecure channels.
- Even if there was a duty of confidentiality, it would be overridden by public interest in assisting the police in crime detection and prevention (*Malone*).

[2B] If a **stranger acts illegally** in obtaining information, an **obligation** of confidence arises (*Francome v Mirror-Group Newspapers*).

- In *Francome*, P jockey's telephone was tapped illegally. Information obtained through the unauthorised phone tapping showed that P was receiving bribes and was in breach of rules. CA distinguished *Malone*. In this case, the tapping was done illegally. In *Malone*, it was done legally.

## EMPLOYEES AND EX-EMPLOYEES

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[1] To what extent are former employees bound by an obligation of confidence? What are the policy considerations?

- **Policy considerations:**
  - The court seeks to **(1) uphold the obligation of the free contracting parties** to a contract of service to honour their contractual obligations.
  - On the other hand, the court seeks to **(2A) respect the rights of servants to advance in their chosen trade and profession**, and in this connection to promote their own **(2B) private interest by changing employment**, and also to promote the **(2C) public interest by better use of the servants' personal aptitudes, experience and skill** (*Tang Siew Choy*)
  - Also, courts believe that **(2D) competition** is generally a good thing (*Invenpro*).
  - It follows from the foregoing that an employer **must particularize the confidential information** which he seeks to protect (*Tang Siew Choy*).
- Make distinction between 'confidential information' (can use) and 'trade secrets' (cannot use) (*Tang Siew Choy*)

[2] For such purposes, guidelines are provided under *Faccenda Chicken*, as applied by SG courts in *Asia Business Forum v Long Ai Sin*. There are **four factors to consider when ascertaining if information is considered "trade secrets" or not:**

- **1) THE NATURE OF THE EMPLOYMENT**
  - How near is the employee to the 'inner counsel' of the employer? Only information made known to trusted employees is more likely to constitute a trade secret.
- **2) THE NATURE OF THE INFORMATION ITSELF**
  - The information must be defined with some degree of precision. There will be no protection for general business methods. Just because information is technical does not qualify it as trade secrets
  - Information must be information the release of which the owner believes would be injurious to him or of advantage to his rivals or others (*Coco v Clark*)
- **3) WHETHER THE EMPLOYER IMPRESSED ON EMPLOYEE THE CONFIDENTIALITY OF THE INFORMATION**
  - If information was specifically designated as a trade secret by the employer, it is more likely to be accepted as such by the Courts.

- However, it is unrealistic to expect a small business from adopting the same disciplines as a larger business. For small businesses, the courts may treat information as trade secrets even though the employer did not designate it as such.
- 4) WHETHER THE RELEVANT INFORMATION CAN BE EASILY ISOLATED from other information which the employee is free to use or disclose
  - Isolated from elements like the employee's own stock of knowledge, skill and expertise

### [3] Examples

- *Asia Business Forum*: Did not impress on employee the confidentiality of information
- *PH Hydraulics*: Not trade secret. Took steps to enforce it (signing in and out) but did not in practice actually enforce. Not serious about it, so suggests that it is not a trade secret.

## 3. UNAUTHORISED USE OF INFORMATION TO DETRIMENT OF PARTY COMMUNICATING IT

[1] To be liable, the defendant must be shown to have made an **unauthorised use** of the confidential information imparted/received under a duty of confidence (*Invenpro*).

- This is largely a **question of fact**: what, if any, use was permitted and did the defendant actually make an unauthorised use of the information proven to be confidential?
- Where what is confidential is the combination of features as a whole, it will be necessary to show that the defendant has indeed made use of that combination.
- On the other hand if the confidential information resides in specific points of detail (as opposed to general principles or concepts), it will be necessary to show that these points have been used by the defendant (as opposed to being independently recreated or rediscovered).
- Where the claim is based on a mixture of features as a whole and points of detail in particular, the task of proving unauthorised use may be especially difficult for the court accepts that **competition is, in general, a good thing**.

[2] It is **not necessary to prove detriment** in every case (*Vestwin* (obiter); *Coco v Clark*).

## 4. DEFENCES – PUBLIC INTEREST DEFENCE

[\*] There was a **CONFLICT BETWEEN TWO PUBLIC INTERESTS**: The court must balance the competing public interests in **maintaining confidentiality** and in **ensuring that wrongdoing was not concealed**.

[1] The publication of confidential information **will not be restrained** if it can be shown that **public interest may be best served by an informer passing information to the relevant party** (*Lion Laboratories v Evans*). **Iniquity is an instance** of just cause for breaking confidence (*X v CDE*; *Hubbard v Vosper*).

- Lord Denning in *Hubbard v Vosper*: "...there is good ground for thinking that these courses contain such dangerous material that it is in the public interest that it should be made known."
- *Lion Laboratories v Evans* extends the principle in *Hubbard v Vosper*: Iniquity is merely an instance of just cause or excuse for breaking confidence. Distinction between 'what is in the interest of public to make known' and 'what is interesting to the public'. Public interest may be best served by informer passing information to certain party.
- *Hubbard v Vosper*: D published book critical of scientology. P sought injunction, which was denied because D was protected by the public interest defence. Although material may have been confidential, it was in the public interest that it should be made known.
- *Lion Laboratories v Evans*: On the facts, the information contained in the documents suggesting the inaccuracy of the "intoximeter" was so important to the public as to outweigh the plaintiffs' interests and that accordingly, the court permitted publication of specified documents.

[2] There is a distinction between "**what is in the interest of the public to make known**" and "**what is interesting to the public**" (*Lion Laboratories*).

- If it is merely interesting to the public, then such information cannot be disclosed. Many things will be interesting to the public.
- Only information that is truly of public interest can be published.
- Public interest may be best served by informer passing information to certain party.

[3] Scope of injunction may be varied according to the nature of information to be published (*X v CDE*).

- Where an interlocutory injunction was sought to prevent publication of information pursuant to a conspiracy to injure, the court should bear in mind that the **interlocutory injunction would, if granted, interfere with the freedom of speech**. The court must therefore be very careful in delimiting the extent of the injunction.

- If the plaintiffs' claim for conspiracy to injure was only arguable in that there was some doubt as to the dominant purpose being an intention to injure, the public interest in freedom of speech would prevent the issue of a 'gagging' injunction.
- In this case, public interest did not require full-scale publication of AB's alleged cheating as only the company, who had been informed, and the police, whom the defendant was permitted to deal with under the first injunction order, needed to know of this information at this stage.
- Damages would not be an adequate remedy for X as loss of reputation could never be adequately compensated for with cash.
- As far as false claims were concerned, it was justified for the defendant to disclose it in the public interest. However, it must only be disclosed to the parties who are interested to know it e.g. the authorities