Protection de la Propriété Intellectuelle (PI)

Outils & Stratégies

« Protéger vos idées »

Conférences et Séminaires Unitec
7 mai, 2019
IP Assets– strategic function

YOU

Money, Time, Intellectual assets
(Intellectual Property)

Competences
(knowledge, skills)

Relationships
(network)

Tangible assets
(plant & equipment)

COMPETITION

Money, Time

Intellectual assets
(Intellectual Property)

Competences
(knowledge, skills)

Relationships
(network)

Tangible assets
(plant & equipment)

CUSTOMERS

ATTENTION
NEEDS, DESIRES
MONEY

Get customers' attention to sell products/services that satisfy their needs or desires and in exchange receive their money.

Weaken the competition's ability to get customers' attention and to satisfy their needs or desires.
IP Assets – strategic function

Responding to CUSTOMERS perceived NEEDS, DESIRES

innovating branding

patents, designs, copyright, know-how

differentiated products

Getting CUSTOMERS ATTENTION

trademarks, company names, domain names

reputation / goodwill / trust

«The business has two – and only these two – basic functions: marketing and innovation. Marketing and innovation produces results, all the rest are costs.»
Peter Drucker in Management: Tasks, Responsibilities, Practices
Intellectual Property Rights
Objects of protection

Designs
Visual appearance not dictated solely by functional characteristics

Patents
Invention or technical solution (exception US, AU) to a problem

Copyrights
literary/artistic works (code of computer program) having an individual character (form not content).

Offering

Trade Mark
Distinctive sign (name, slogan, logo, sound, colour ...) used to distinguish products/services of its owner compared to others on the market

Other signs
Corporate name, domain names

Geographical indication
Know-How
Trade Secret

Objects of protection
# IP – overview

<table>
<thead>
<tr>
<th>REGISTRATION REQUIRED</th>
<th>NO REGISTRATION REQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PATENTS</strong> → new and non-obvious technical inventions</td>
<td><strong>COPYRIGHT</strong> → literary/artistic works / computer programs (protects form not content)</td>
</tr>
<tr>
<td><strong>DESIGNS</strong> → new and original visual appearance of object</td>
<td><strong>UNREGISTERED DESIGN RIGHTS</strong> → EU (3 years)</td>
</tr>
<tr>
<td><strong>TRADEMARKS</strong> → distinctive sign distinguishing goods or services of one enterprise from another</td>
<td><strong>UNREGISTERED TRADEMARK/NAME RIGHTS</strong> (through use)</td>
</tr>
</tbody>
</table>
| OTHER SIGNS (company name, domain name) | • Passing off (common law countries UK, CA, AU…)  
• Trade Dress (US)  
• Unfair competition |
## NO REGISTERED PROTECTION POSSIBLE (WITH EXCEPTIONS)

<table>
<thead>
<tr>
<th>Category</th>
<th>Protection Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>KNOW HOW</strong></td>
<td>kept secret through contracts, employment law, and internal policies (secure storage and access, administration of access rights, fragmentation of key information, in house control of key processes and products «divide and rule»)</td>
</tr>
<tr>
<td><strong>IDEAS, CONCEPTS</strong></td>
<td>prior to conceiving the technical means to achieve the desiderata, such ideas and concepts are not patentable</td>
</tr>
<tr>
<td><strong>BUSINESS &amp; MARKETING METHODS</strong></td>
<td>non patentable (with some exceptions in US, AU)</td>
</tr>
<tr>
<td><strong>ODOURS</strong></td>
<td>distinctive smell of goods / design feature (exceptions are olfactory marks allowed in some countries e.g. US)</td>
</tr>
<tr>
<td><strong>SOUNDS</strong></td>
<td>as a design feature (exceptions are sound marks allowed in certain forms in many countries)</td>
</tr>
</tbody>
</table>
Nature of intellectual property rights

Patents, Trademarks, Designs, Copyright:

→ exclusive right to prohibit the commercial exploitation of the protected right (Negative right)

→ exclusive right to dispose of protected right (license, sell, mortgage) (Positive right)

Limitations of protection:

→ Territoriality

→ Duration of protection (designs, patents, copyrights)

<table>
<thead>
<tr>
<th>Design</th>
<th>Trade mark</th>
<th>Patent</th>
<th>Utility Model</th>
<th>Copyright</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. 10/14/25 years from filing</td>
<td>Renewable every 10 years</td>
<td>20 years from filing</td>
<td>7-10 years from filing</td>
<td>70 years from creator’s death (software 50 years)</td>
</tr>
</tbody>
</table>

→ Trademarks: requirement to use
IP rights – General Procedure of registration

1st filing - priority
(e.g. in Switzerland)

Priority claim
Trademark & designs:
6 months
Patents:
12 months

Filing → Examination → Registration

Publication

Opposition
(third party)

Simple formal procedure
or
Examination of conditions of registration

annuities / renewals
IP – strategy

economic objective = maximise margin

IP cost  margin  IP benefit

« certain, known, & now »  « uncertain, unknown, & later »
### Effects

- Protection against infringement in countries of protection
- Positive image (innovation)
- Strengthens collaboration with 3rd parties
- Enables licensing & allows control and valorisation of created joint IP
- Ensures a certain freedom to operate *(e.g. manufacturing/distribution sites)*
- Increases intangible assets
- Ensuring an entry point of negotiation

### Consequences

- Increased margin and/or sales *(i.e. increased sales price and/or market share)*
- Direct revenue from IP
- Increased company value
Defining objectives

Objectives

- Start-up creation
- Raising funds
- Protecting of technology platform
- Protecting of service offering
- Managing collaboration/partnership
- Licences (in/out)
- Preserving control of sourcing and quality
- Controlling Freedom to Operate
- Building and maintaining Image...
- Mining competition field
- ...

IPRs tools

IP strategy
Identification of key elements influencing buying decision

What Are You Selling? (USP)

- Know-how
- Product
- Technology to be integrated
- Device/Kit
- Method
- Research tool
- Biomarkers
- Data set
- Goodwill & established reputation in a therapeutic field
- ...

Who is Buying?

- Apparatus constructors
- Software distributors
- Standard consumers
- On-line users
- Patient
- Doctor
- Hospital
- Health insurances
- Private/academic labs
- Pharma companies
- ...

What to Protect  When to protect
Successful Brand & Innovation Development

**Value**

- **fantasy mark**
  - (name)
  - IBM
  - XEROX
  - APPLE

- **descriptive mark**
  - (name)
  - ECO DRIVE
  - CYBER EXPERT
  - GREEN LABEL

**Time**

*proposal for a start-up:*

- focus on a single core brand / communicate through multiple channels
  - company name = product brand name = domain name
    - = skype name = facebook = twitter =…

- therefore important to select a « good » name that is free to use
What could be protected?

Examples

→ New technologies *(novel)*

OR

→ Known technologies from other fields and adapted for use in new products: *might be patentable if the technical solution developed for the new use is novel & inventive over prior art.*

→ The new function does not make it novel but technical means to achieve this new function might be patentable

Pace makers  Intraocular pressure sensors  Retinal Implants  Wireless brain interface  Health monitor  Telemetry cardiac monitor
How to read a patent

Patent application and Patent (granted)

Patent Application (“A”)

Description

Claims

Modifications during prosecution

 Granted Patent (“B”)

Description: interpretation

Claims: scope of protection

Grant
Effective Patent Protection

development process: converge to the best solution

patent protection process: expand to include alternative solutions → increase potential scope of protection
Importance of Timing

Balance between:

- **A late filing** when you have extensive experimental data (increased risk of being scooped by prior art)

- **A too early filing** which will expose your patent application to enablement and sufficiency objections from Examiners (would lead to impossible or very narrow patent protection) & starts the clock for future patent costs

-> **Filing a patent application not earlier than having at least few data supporting the invention** & if the applicant believes to be in a position, within a year from this filing date, to provide at least some further data for supporting a scope economically reasonable for the patent application
Effective Patent Protection

When to file?

Influences scope of protection

Filing date

Prior art

Priority year

Grant

Claimed

Examples

Commercial embodiment
Effective Patent Protection

Development efforts and control of disclosures

PoC advisable

No disclosure | Avoid disclosure | Limit disclosure | Control of disclosure contents

Development efforts

1st filing | Envision subsequent filings | Envision filing on further developments

Priority filing | Filing subsequent applications (geographical extension) | Publication of the application

0 | 6 months | 12 months | 18 months | 30 months (end of PCT)
IP Cost evolution during patent life

Prior art searching
Drafting and filing priority
Refiling

Regional/national patent applications (entry in the national phase)

National examination procedures

Grant, Validation

Annuities

- EP
- US (USA)
- CN (China)
- IN (India)
- others
IP Cost drivers

1. Geographical scope of protection
2. IP portfolio management (internal & external)
3. filing strategy & filing routes
4. Quality of drafting
5. prosecution difficulties
6. rapidity of examination procedure
7. inventiveness, nature & complexity of technology,.....
Patent filing strategy

Drafting and filing priority

Extension filing

0 months
6 months
12 months
18 months
19 months
30 months

PCT application
International search report
Request for examination (optional)
International examination procedure
Regional/national patent applications (entry in the national phase)
National examination procedures

PCT

Publication

European search report

EP

Search Report

1st priority filing

EP

5 months
4-6 years

International search report

Regional/national patent applications (entry in the national phase)

PCT application

Request for examination (optional)

International examination procedure

National examination procedures

Grant
The European patent must be translated and validated in certain countries if protection is desired

Others….

GB (UK)
FR France
DE Germany

US (USA)
JP (Japan)
CN (China)

others
Inventorship determines ownership

Inventor  \( \xrightarrow{\text{X}} \)  Owner

Employee  (service activity)

Employee  (service activity)

Employer

Depending on contract terms

Under contrat
(consultant, service provider)

Inventor

Depending on contract terms
Getting ready for filing a patent application

1. Invention Disclosure
   - Description of the invention
   - Details on research funding origin – rights ownership
   - Potential development and value (applications, various aspects, in/out development)

2. State of the art
   - Brief description of the background of the invention or starting point of the invention
   - Results of prior art searches (if available) in patent and non-patent literature

   CH:  http://www.swissreg.ch/
   US:  http://patft.uspto.gov/
   WO:  https://patentscope.wipo.int/search/fr/search.jsf
   JP:  https://www.j-platpat.inpit.go.jp/web/all/top/BTmTopEnglishPage
   PubMed, PubChem, Scirus, EBI …

   - Identify disclosures (made or planned): reference, dates and copies of content (to be updated as long patent applications are pending)

3. Main differences/advantages/competitive advantage

4. Clearing chain of rights
   - Details on research funding origin – rights ownership
   - Identity of the inventors & respective contributions (see record keeping)
   - External collaboration involved (MTA, R&D agreements, visiting scientists, copyright material, use of protected material or processes)
Enhancing protection

Alternative or Complementary protection

• Utility model (only available in some countries – DE, AT, JP, ES…)
  - validity: generally same or similar substantive requirements as a patent (novelty, inventive step)
  - often simplified or no substantive examination
  - lower cost
  - shorter duration (usually 10 years or less depending on country)
  - not available in many countries
  - not all technologies (in particular pharmaceutical, chemical & biotech) can be protected via a utility model
  - methods (processes) cannot be claimed

• Design
  - only protects external appearance
  - therefore very limited scope of protection (for technical inventions)
  - low cost and easy to enforce

• Preserve secret know-how
  - difficult to implement esp. in view of employee mobility
  - needs a policy and procedures (need to know basis / divide and rule / information repository / access rules)
Freedom to Operate ≠ Patentability

Example

Patentable

FTO?

Third party’s rights?
(even from other fields)

→ Freedom to operate (FTO) search and analysis are crucial before commercialization
→ It might be complex and needs to performed once the product is defined
Various scenarios regarding IP position

1. you can commercialise a product and can protect it
   (i.e. your product does not infringe an in-force third party patent and is not disclosed in the prior art and is therefore patentable)

2. you cannot commercialise a product but can protect it
   (i.e. your product would infringe an in-force third party patent that covers broadly a technology included in your product, but at the same time the product/part of it is patentable because it is novel and inventive over the prior art)

3. you can commercialise a product but cannot protect it
   (i.e. your product does not infringe an in-force third party patent however is disclosed or anticipated in the prior art and is therefore not patentable)

4. you cannot commercialise a product and cannot protect it
   (i.e. your product would infringe an in-force third party patent that covers broadly a technology included in your product and at the same time the product is not patentable because it is disclosed or anticipated in the prior art)
Consolidation of assets
Increasing value

Agreements with third parties

**Define Objectives (short/mid term) of the Agreement**
- Aim of the Agreement
- Any back-up strategy if no agreement reached
- Identify likelihood and nature of resulting new IP
- Define internally what you would be ready to accept as compromise & the associated level of risk

**Decide the appropriate type of Agreement (Services, Research, co-development, clinical, License…)**
- **Service Agreements**: aim at filing patent applications before signing, retaining rights on data and to review/amend/authorize publications;

- **Research/Collaboration Agreements**: aim at having own background IP before signing; getting non-exclusive licence on third party background IP/ resulting new IP, try to define conditions of transfer of rights or exclusive license early-on; define carefully the field
IP Assets– value over time, duration
Thanks for your attention!
Examples
What could be protected?

Examples

- New Chemical entity (NCE)
- Isolated natural product
- New use
- Delivery systems
- Formulations....

- New sequences (proteins, peptides, nucleotides, etc.)
- Antibodies, chimeric proteins
- New medical use
- Methods of detection....

- Medical devices
- Image processing
- Detection kits....
Medical tools
Example of complementary protection

Galderma
Example of complementary protection

**Galderma**

A closure for a container including a base having a passageway extending therethrough. At least a portion of the base is configured to attach to at least a portion of an opening of a container such that the passageway is in registry with at least a portion of the opening. A cap is movably attached to the base. The cap is movable between a first position in which at least a portion of the cap blocks at least a portion of the passageway and a second position in which the cap is spaced-apart from at least a portion of the passageway to allow contents from within the container to pass therethrough. A seal is positioned on one of the cap and the base.
### IP protection strategies for Medical Devices

Example of complementary protection

**Table 1: United States Patent**

<table>
<thead>
<tr>
<th>Patent No.:</th>
<th>US 8,095,199 B2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Patent:</td>
<td>Jan. 10, 2012</td>
</tr>
</tbody>
</table>

**Portable Electrocardiograph with a Neutral Electrode**

**Inventors:** WeiHu Wang, Beijing (CN); Lei Chen, Beijing (CN); Peng Wu, Beijing (CN)

**Assignee:** Beijing Choice Electronic Technology Co., Ltd., Beijing (CN)

**Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 561 days.

**References Cited**

**U.S. Patent Documents**


(Continued)

**Foreign Patent Documents**

- DE 332899 AI * 2/1985

**Other Publications**


The invention claimed is:

1. A portable electrocardiograph, comprising: a housing having a first end, a second end, and a back face; a clamping cover configured to automatically close provided on the first end of the housing (1); a finger hole provided between the clamping cover and the housing, the finger hole defined by an inner wall including a lower half defined on the housing and an upper half defined on the clamping cover; a first electrode provided on the lower half of the inner wall; a second electrode provided on the second end of the housing; and a third electrode provided on the back face of the housing, in which the first electrode or the third electrode is a neutral electrode, and the third electrode is configured in a bending shape.
IP protection strategies for Medical Devices

Example of complementary protection

- International Registration n° 1028434 (US, EM), Chinese priority

- International Registration n° 1035737 (US, EM), Chinese priority

- **Class 10:**
  Nursing appliances; surgical apparatus and instruments; instrument cases for use by surgeons and doctors; anesthetic apparatus; pumps for medical purposes; hematimeters; injectors for medical purposes; medical apparatus and instruments; cases fitted for medical instruments; arterial blood pressure measuring apparatus; sphygmomanometers; sphygmotensiometers; respirators for artificial respiration; apparatus for artificial respiration; stethoscopes; cases fitted for use by surgeons and doctors; veterinary apparatus and instruments; syringes for medical purposes; physical exercise apparatus, for medical purposes; apparatus for use in medical analysis; testing apparatus for medical purposes; thermometers for medical purposes; diagnostic apparatus for medical purposes; electrocardiographs; electrodes for medical use; physiotherapy apparatus; medical treatment ultrasonic instruments and parts; electronic hearing aids; hearing aids for the deaf; ambulance stretchers; furniture especially made for medical purposes; medical guide wires

- **Owner:** Beijing Choice Electronic Technology Co., Ltd. 100039 Beijing (CN)
1. A data processing system comprising:

   a computer (104);
   a display device (102); and
   an indication assembly for the data processing system, the indication assembly comprising:

   a first control assembly (230, 530, 1010) mounted on a surface of the computer (104), comprising a first sensor (236, 536, 1022) and a first indicator (235, 535), the first sensor and the first indicator being coupled to a first sensing circuit (233, 533), wherein the first sensing circuit is arranged to send an electrical signal to the first indicator for controlling its presentation and a power control signal (1026) to the computer when a user-touch occurs to said first sensor; and

   a second control assembly (201, 501, 1011) mounted on a surface of the display device (102) coupled to said computer, comprising a second sensor (206, 506, 1031) and a second indicator (205, 505), the second sensor and second indicator being coupled to a second sensing circuit (203, 503), wherein the second sensing circuit is arranged to send an electrical signal to the second indicator for controlling its presentation and a power control signal (1028) to the computer when a user-touch occurs to said second sensor;

   wherein said first control assembly and said second control assembly are configured to share a signal source (1020) to synchronise the behaviours of said first indicator and said second indicator when said user-touch occurs to either one of said first control assembly and said second control assembly.
**Patent protection in the field of IT**

**Examples**

**Apple Inc**

1. A computer-implemented method of providing alerts using a device, the computer-implemented method comprising:
   - receiving a notification;
   - outputting a first alert in response to receiving the notification;
   - obtaining one or more measurements from one or more sensors of the device;
   - determining the device is not accessible to a user based on the one or more measurements from the one or more sensors of the device;
   - suppressing a second alert at a specified time after providing the first alert when the device is not accessible to the user;
   - monitoring subsequent measurements from the one or more sensors of the device at a plurality of times after suppressing the second alert;
   - detecting, by a state engine executing on the device, a change in a state of the device based on one or more of the subsequent measurements from the one or more sensors at one or more of the plurality of times;
   - determining that the device is accessible to the user based on the change in the state of the device; and
   - outputting the second alert based on determining that the device is accessible to the user.
Patent protection in the field of IT

Examples

Google Technology

8. A system, comprising:
- a data processing apparatus; and
- a memory storage apparatus in data communication with the data processing apparatus, the memory storage apparatus storing instructions executable by the data processing apparatus and that upon such execution cause the data processing apparatus to perform operations comprising:

receiving an image from a camera of a user device;

identifying text depicted in the image, the identified text being in two or more text blocks identified in the image, the two or more text blocks including a first text block and a second text block distinct from the first text block, the identified text being in a first language;

processing, by the data processing apparatus, the image to determine a relative prominence between the two or more text blocks and to determine, from a plurality of different prominence presentation contexts, a prominence presentation context for presenting a translation of text depicted in the image based on the relative prominence, wherein each prominence presentation context corresponds to a relative prominence of each text block in which text is presented within images to other text blocks identified in the images, and each prominence presentation context has a corresponding graphical user interface for presenting a translation of a different portion of the identified text than each other prominence presentation context;

determining, based on the selected prominence presentation context, that a translation of a single text block, of the two or more text blocks, will be presented using the graphical user interface corresponding to the selected prominence presentation context;

in response to determining that a translation of a single block of text will be presented using the graphical user interface corresponding to the selected prominence presentation context, selecting, between the first text block and the second text block and based on a size of the text in the first text block and a location of the first text block within the image relative to a size of the text in the second text block and a location of the second text block within the image, first text block as the single text block for which a translation will be presented using the graphical user interface corresponding to the selected prominence presentation context;

presenting, at a display of the user device, the translation of the text in the first text block in an overlay over the image using the graphical user interface corresponding to the selected prominence presentation context, while presenting the text in the second text block in the first language and in the image.
IP – strategy

Case study overview – Apple design filing strategy

Design filings
Jan. 5th, 2007

i-phone introduction to public
Jan. 9th, 2007

Design filings
June 23rd

Design filings
June 29th

i-phone sales
July 30th, 2007

Design filings
Feb. 2nd, 2009

Design filings

1-Basic shape
(flat box, round edges)
D558,757

2-features
(screen, connectors, buttons)
D558,756

3-surface finish
(glass-like)
D580387

4. Color
(black, silver)
D558,758

Color designs for 193 screenshots

Designs with dotted lines

Third generation filings

193 screenshots
Case study overview – Apple design filing strategy

Color designs for 193 screenshots

Design filings

Jan. 5th, 2007

Design filings

Jan. 9th, 2007

Design filings

June 23rd, 2007

Design filings

June 29th, 2007

Design filings

July 30th, 2007

Design filings

Feb. 2nd, 2009

Source: http://www.ipwatchdog.com/2013/08/23/the-power-of-portfolio-strong-design-patents/id=44774/
Patent filing strategy & Costs

Drafting and filing priority

0 months
6 months
12 months
18 months
19 months
30 months

PCT application
International search report
Request for examination (optional)
International examination procedure
Regional/ national patent applications (entry in the national phase)
National examination procedures

PCT
Publication

European search report

EP

Search Report

1st priority filing

CHF 6’000-10’ 000
13’000-18’000
36’000-42’000
42’000-60’000
60’000-100’000

Accrued

Grant
The European patent must be translated and validated in certain countries if protection is desired

EP
US (USA)
JP (Japan)
CN (China)
others

GB (UK)
FR France
DE Germany
Others….

PCT

Search Report
Publication

International examination procedure

EP

Grant

6-8 years
– THE END –

Thanks for your attention!