

**"Los Lunes de  
Patentes"**

**"The Patent  
Mondays"**

**Foro de aprendizaje y  
discusión**

***Learning and discussion  
forum***



UNIVERSITAT DE  
BARCELONA

***Know-how? Patent? Both of them?  
Thoughts and discussion on decision making***

UB Patent Centre, Barcelona, 16 September 2019

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Elected member of the first Academic Advisory Board of the European Patent Academy, European Patent Office

# Muchas personas inteligentes -periodistas, entre ellas- sufren malentendidos en materia de patentes y know-how

DOMINGO, 14 JUNIO 1987

LA VANGUARDIA

La **falta de peritos** que informen adecuadamente a los **jueces** en litigios de propiedad industrial **desprotege a los investigadores**

## La entrada en vigor de la nueva ley de patentes frena el espionaje industrial

Al año de la aprobación de la nueva ley de patentes, ésta ha supuesto un importante freno para el espionaje industrial en nuestro país. No obstante, los expertos del sector advierten de las dificultades surgidas en la aplicación de la ley, cuyo objetivo es impulsar la innovación tecnológica en España y proteger los resultados de los esfuerzos de los investigadores.

la copia

## PROGRAMA

# ***¿Know-how? ¿Patente? ¿Ambos? Reflexiones y coloquio sobre la toma de estas decisiones***

- 1. Analizar lo que se tiene, y reflexionar sobre lo que se piensa hacer**
- 2. Considerar pros y contras -incluyendo riesgos- de ambas formas de protección**
- 3. Algunos ejemplos en los que preguntarse:  
"si lo mantenemos como know-how, ¿cuánto tardarán nuestros competidores en copiarlo?"**

# Trade secret (TS) = undisclosed **know-how** and undisclosed business information (cf. EU Directive)

Directive (EU) 2016/943 of the European Parliament and of the Council of 8 June 2016 on the protection of **undisclosed know-how** and **business information (trade secrets)** against their unlawful acquisition, use and disclosure

(Text with EEA relevance) OJEU 2016-06-15 L 157/1

Whereas:

(1) Businesses and non-commercial research institutions invest in acquiring, developing and applying know-how and information which is the currency of the knowledge economy and provides a competitive advantage... **Such valuable know-how and business information, that is undisclosed and intended to remain confidential, is referred to as a trade secret.**

(38) **This Directive should not affect the application of competition law rules**, in particular Articles 101 and 102 of the Treaty on the Functioning of the European Union ('TFEU'). The measures, procedures and remedies provided for in this Directive should not be used to restrict unduly competition in a manner contrary to the TFEU.

(39) **This Directive should not affect the application of any other relevant law in other areas, including IPR and the law of contract.** However, where the scope of application of **Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of IPR**, and the scope of this Directive overlap, this Directive takes precedence as *lex specialis*.

# Know-how is a well-established term in several EU languages ...

**know-how = secret technical information / geheime technische Wissen**

(cf. Pagenberg/Beir, "Lizenzverträge / License Agreements", 6th ed. 2008, Carl Heymanns V.)

**DE:** Richtlinie (EU) 2016/943 über den Schutz vertraulichen **Know-hows** und vertraulicher Geschäftsinformationen (Geschäftsgeheimnisse) vor rechtswidrigem Erwerb sowie rechtswidriger Nutzung und Offenlegung

**NL:** Richtlijn (EU) 2016/943 betreffende de bescherming van niet-openbaar gemaakte **knowhow** en bedrijfsinformatie (bedrijfsgeheimen) tegen het onrechtmatig verkrijgen, gebruiken en openbaar maken daarvan

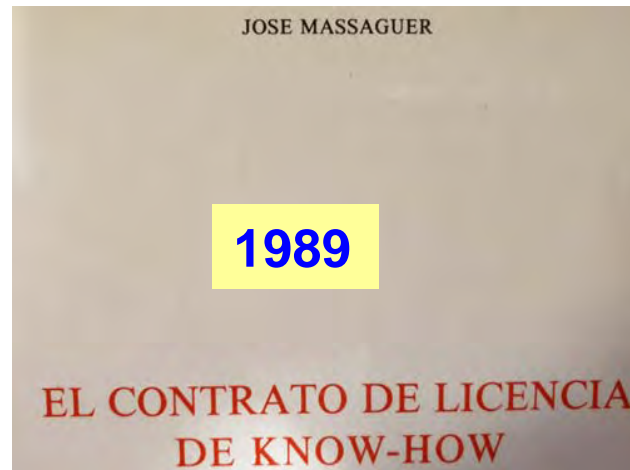
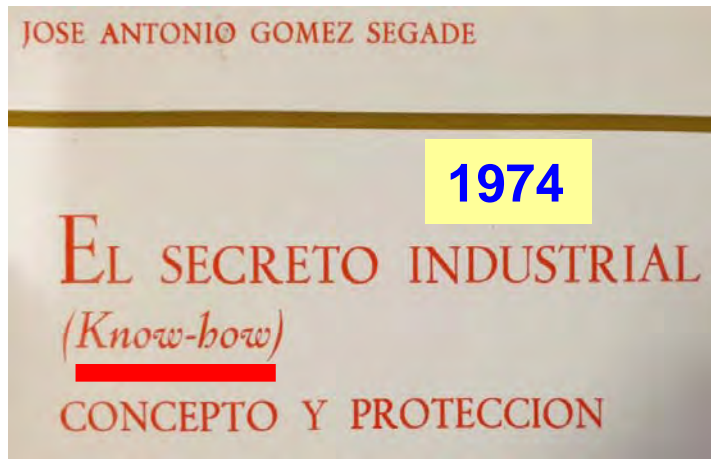
**IT:** Direttiva (UE) 2016/943 sulla protezione del **know-how** riservato e delle informazioni commerciali riservate (segreti commerciali) contro l'acquisizione, l'utilizzo e la divulgazione illeciti

**PT:** Diretiva (UE) 2016/943 relativa à proteção de **know-how** e de informações comerciais confidenciais (segredos comerciais) contra a sua aquisição, utilização e divulgação ilegais

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**FR:** Directive (UE) 2016/943 sur la protection des **savoir-faire** et des informations commerciales non divulgués (secrets d'affaires) contre l'obtention, l'utilisation et la divulgation illicites. [ **But in practice know-how is often used in French** ]

# Know-how is a well-established term in Spanish...



...however, in some Spanish legal texts "**conocimientos técnicos**" is used instead:

**Art. 76.1 LP1986.** Salvo pacto en contrario, quien transmita una solicitud de patente o una patente o conceda una licencia sobre las mismas, está obligado a poner a disposición del adquirente o del licenciatarario los **conocimientos técnicos** que posea y que resulten necesarios para poder proceder a una adecuada explotación de la invención.

**Art. 84.1 LP2015.** **Conocimientos técnicos.** [ and the same article text ]

**Directiva (UE) 2016/943** relativa a la protección de los **conocimientos técnicos** y la información empresarial no divulgados (**secretos comerciales**) contra su obtención, utilización y revelación ilícitas. Considerando (1): ... **conocimientos técnicos (know how)**..

**Directive (EU) 2016/943** of undisclosed **know-how** and business information (**trade secrets**) against their unlawful acquisition, use and disclosure

# Terminología en la LSE española

## Ley 1/2019, de 20 de febrero, de Secretos Empresariales

### PREÁMBULO I

... aprobación de la **Directiva (UE) 2016/943...** relativa a la protección de los **conocimientos técnicos** y la **información empresarial no divulgados** (secretos comerciales) contra su obtención, utilización y revelación ilícitas ...

El objetivo de la iniciativa europea es, por un lado, garantizar que la competitividad de las empresas y organismos de investigación europeos que se basa en el **saber hacer** [no usado en el articulado] y en **información empresarial no divulgada** (secretos empresariales) esté protegida de manera adecuada ...

Se ha considerado igualmente conveniente en todo caso **preservar la terminología tradicionalmente empleada** en nuestro sistema jurídico en los casos en los que los nuevos términos se refieren a conceptos sobradamente arraigados, estudiados y tratados en la legislación, la jurisprudencia y la doctrina. En este sentido, por ejemplo, se ha preferido mantener las expresiones de "**secretos empresariales**" [en lugar de "**secretos comerciales**" = "**trade secrets**" ] para designar el objeto de protección y de "**titular**" [en lugar de "**poseedor**" = "**holder**" ] para designar a quien legítimamente posee el secreto empresarial y se beneficia de su protección jurídica.

# 1. Analizar lo que se tiene y reflexionar sobre lo que se piensa hacer

## 1.1. Análisis de la materia técnica: patentable vs. mantenible como know-how

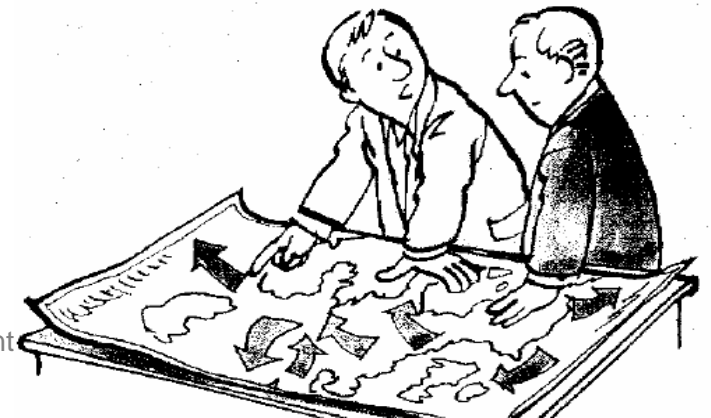
- 1.1.1. Productos
- 1.1.2. Obtenciones de productos
- 1.1.3. Usos de productos
- 1.1.4. Otras actividades industriales



				<b>pensando siempre en los requisitos administrativos</b>			
Food	Drugs	Medical Devices	Radiation-Emitting Products				
Vaccines, Blood, and Biologics	Animal and Veterinary	Cosmetics	Tobacco Products				

## 1.2. Reflexiones sobre formas de explotación y planes de negocio

- 1.2.1. Actores
- 1.2.2. Territorios
- 1.2.3. Potenciales competidores
- 8 1.2.4. Transferencia de tecnología





# Trade Secret (TS) identification

Key people in the company should determine what confidential information that give the company an advantage over its competitors constitute TS. TS may be:

**Undisclosed know-how**, such as:

- Computer programs (including programmer's notes)
- Specifications, bill of materials, recipes, and the like
- Processes (including flow charts)
- Formulas (including algorithms)
- Machinery (developed, utilized or unique to the company)

**Undisclosed business information**, such as:

- Business methodologies and marketing plans
- Vendor/supplier lists (not readily available from public sources)
- Distribution sources and customer information
- Financial information and product/service pricing
- Personnel information

## 2. Considerar pros y contras -incluyendo riesgos- de ambas formas de protección

### 2.1. Protección de la tecnología como know-how

2.1.1. Objetos de protección

2.1.2. Requisitos para protección y transferencia

2.1.3. Explotaciones en secreto, si los requisitos administrativos no exigen la divulgación

- Riesgos de espionaje industrial
- Riesgos de ingeniería inversa
- Riesgos de patentamiento posterior por terceros
- Derechos de preuso (*prior user's rights*) en distintos países
- Venta secreta como estado de la técnica en US (SC, 2019, *Helsinn vs Teva*)

2.1.4. Protocolos sobre "medidas razonables para mantenerlo en secreto"

- Auditorías iniciales y de seguimiento
- Segregación, identificación y rotulación del know-how
- Delimitación del acceso de empleados
- Precauciones frente a la autodivulgación: clientes, visitantes...
- Barreras físicas
- Barreras contractuales: *non-disclosure agreements* (NDA)

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# What is 'trade secret' ?

## Directive 2016/943. Article 2. Definitions

For the purposes of this Directive, the following definitions apply:

- (1) **'trade secret'** means information which meets all of the following **requirements**:
  - (a) **it is secret** in the sense that it is not, as a body or in the precise configuration and assembly of its components, generally known among or readily accessible to persons within the circles that normally deal with the kind of information in question; **[no secret => prior art, not novel; but prior art => no secret? ]**
  - (b) **it has commercial value because it is secret**;
  - (c) **it has been subject to reasonable steps [the Directive and the Spanish LSE are silent on these '*medidas razonables*'] under the circumstances, by the person lawfully in control of the information, to keep it secret**;
- (2) **'trade secret holder'** means any natural or legal person **lawfully controlling a trade secret**;
- (3) **'infringer'** means any natural or legal person who **has unlawfully acquired, used or disclosed a trade secret**;
- (4) **'infringing goods'** means goods, the design, characteristics, functioning, production process or marketing of which significantly **benefits from trade secrets unlawfully acquired, used or disclosed**.

# Know-how definition in RECATT 316/2014 - Regulation (EU) on the application of Art. 101(3) of the TFEU to categories of TT agreements

## Article 1. Definitions

1. For the purposes of this Regulation, the following definitions shall apply:

(b) **'technology rights'** means **know-how** and the following rights, or a combination thereof, including applications for or applications for registration of those rights: (i) **patents**, (ii) **utility models, etc.**

(g) **'contract product'** means a product produced, directly or indirectly, on the basis of the licensed technology rights; ...

(i) **'know-how'** means **a package of practical information**, resulting from experience and testing, which is:

(i) **secret**, that is to say, not generally known or easily accessible,

(ii) **substantial**, that is to say, significant and useful for the production of the contract products [**close to 'with commercial value'?**], and

(iii) **identified**, that is to say, described in a sufficiently comprehensive manner so as to make it possible to verify that it fulfils the criteria of secrecy and substantiality;

...

# Summing-up: EU legal requirements of know-how

To be protected & transferable, **know-how is information** that:

- is **practical/technical information** (no 'business information')
- is **undisclosed/secret** (cf. Trade Secret EU Directive and EU RECATT)
- has been **subject to reasonable steps to keep it secret**  
(cf. Trade Secret EU Directive)
- is **substantial**, i.e. significant and useful for the production of  
[ products (cf. EU RECATT)
- has **commercial value because is secret** (cf. Trade Secret EU Dir.)
- is **identified**, i.e. sufficiently described for verifying secrecy  
[ and substantiality (cf. EU RECATT)

**Identification is essential to prevent vanishing of know-how, in case the person having access to it departs (e.g. is a departing employee), loses memory or dies!**

# TS vs. employee's use of experience and skills

## Directive EU 2016/943 - Subject matter and scope [incorporado en la LSE]

Art. 3. **Nothing** in this Directive shall be understood to offer any ground **for restricting the mobility of employees**. In particular, in relation to the exercise of such mobility, this Directive **shall not offer any ground for:**

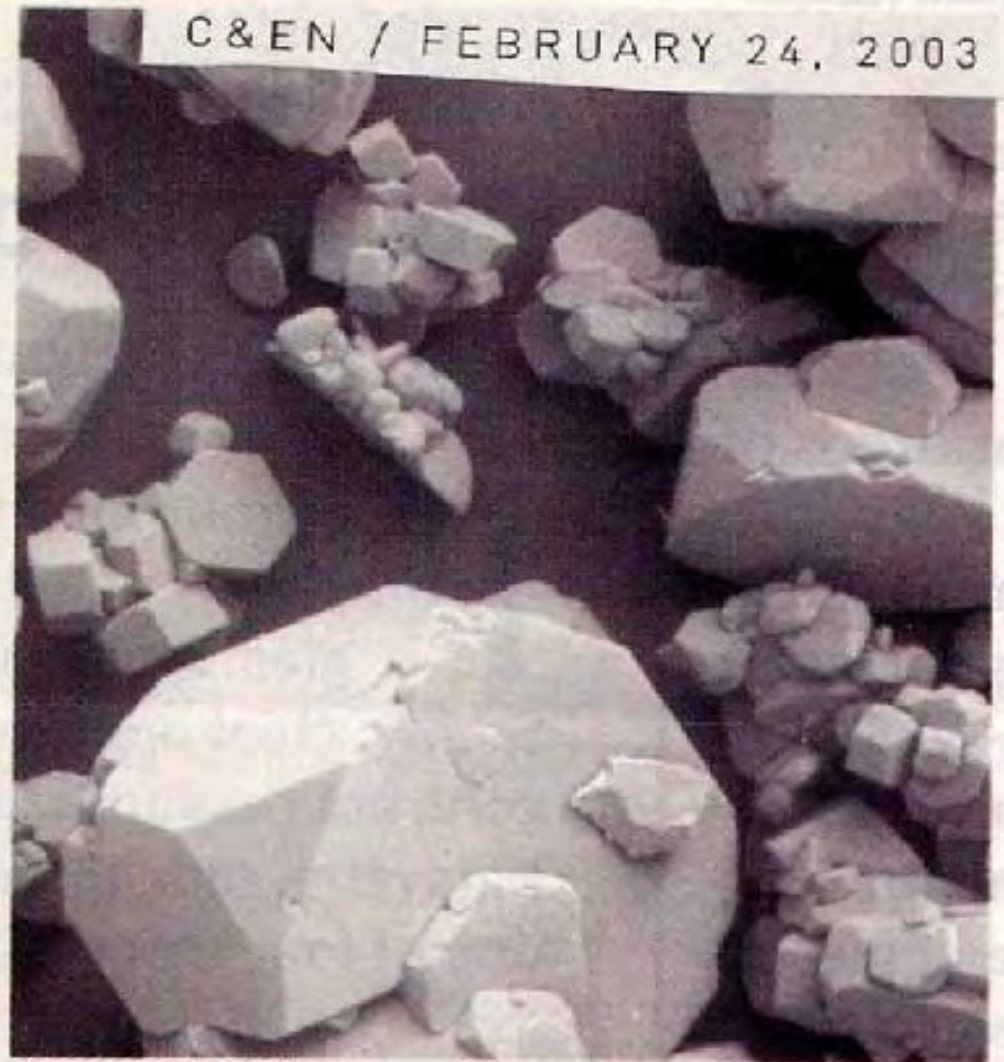
- (a) **limiting employees' use of information that does not constitute a trade secret** as defined in point (1) of Article 2;
- (b) **limiting employees' use of experience and skills** [experiencia y competencias] **honestly acquired** in the normal course of their employment;
- (c) **imposing any additional restrictions** on employees in their employment contracts **other** than restrictions imposed **in accordance with Union or national law**.



### Exit interview with departing personnel

- Review NDA, reminding departing employee not to use or divulge company's TS
  - Require signature of termination certificate, acknowledging company's TS
  - Obtain all TS material in employee's possession
- [experience and skills belong to him/her]

# Polimorphs of active pharmaceutical ingredients (API)



**GOOD LUCK** The disappearance of the polymorph characterized by needlelike particles and poor flowability (left) upon formation of the polymorph characterized by big-faceted crystals and good processibility was fortuitous.

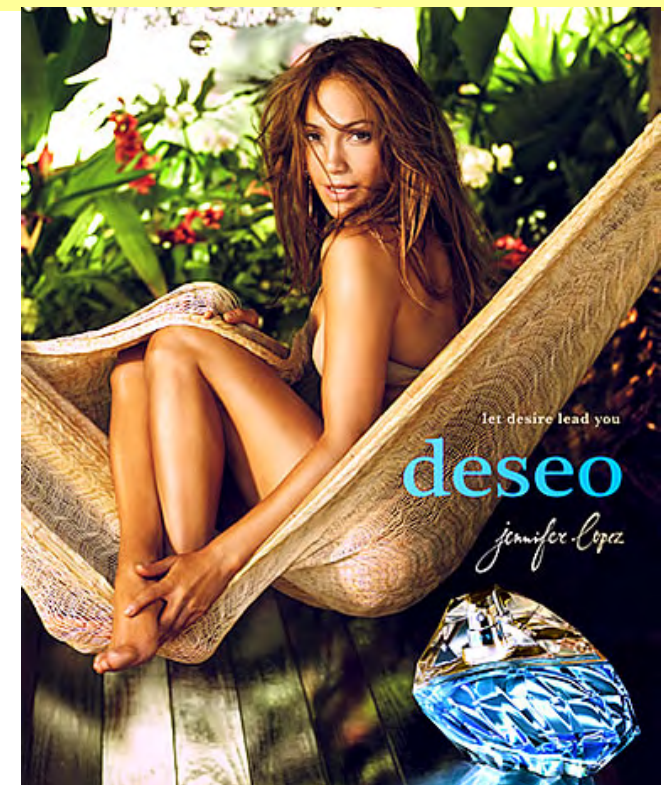


# WORLD'S BIGGEST FRAGRANCE COMPANY LOSES \$80 MILLION TRADE SECRET CASE

Managing IP - 13 February 2014 - Michael Loney, New York

**Mane USA** has been cleared by a New Jersey federal court of allegations it conspired with perfumer **James Krivda** to misappropriate more than 600 trade secret formulas from **Givaudan Fragrances**, the world's largest flavour and fragrance company





Krivda left Givaudan to join Mane in May 2008, after creating perfumes such as Britney Spears Fantasy, Celine Dion Enchanting, **Jennifer Lopez Deseo** [see picture], and Ralph Lauren Ralph Wild. Givaudan alleged that Krivda printed and stole hundreds of formulas with the intent to use them at Mane. In court filings, Givaudan said "Krivda and Mane have attempted one of the greatest heists of trade secrets this jurisdiction may have ever seen" and that the case "involves one of the most egregious thefts of trade secrets by a departing employee ever witnessed in New Jersey". The firm claimed the formulas were the "lifblood" of its business and were worth more than \$80 million.



# The Defend Trade Secret Act (DTSA) in the US, 2016

LII > U.S. Code > Title 18. CRIMES AND CRIMINAL PROCEDURE > Part I.  
> Chapter 90. PROTECTION OF TRADE SECRETS

## 18 U.S. Code CHAPTER 90— PROTECTION OF TRADE SECRETS

<u>U.S. Code</u>	<u>Notes</u>
 • <a href="#">§ 1831. Economic espionage</a>	<b>Title 18</b> of the United States Code is the <b>main criminal code of the federal government</b> of the U.S. The Title deals with federal crimes and criminal procedure. In its coverage, Title 18 is <b>similar to most U.S. state criminal codes</b> , which typically are referred to by such names as <b>Penal Code, Criminal Code, or Crimes Code</b>
 • <a href="#">§ 1832. Theft of trade secrets</a>	
• <a href="#">§ 1833. Exceptions to prohibitions</a>	
• <a href="#">§ 1834. Criminal forfeiture</a>	
• <a href="#">§ 1835. Orders to preserve confidentiality</a>	
 • <a href="#">§ 1836. Civil proceedings</a>	
• <a href="#">§ 1837. Applicability to conduct outside the United States</a>	
• <a href="#">§ 1838. Construction with other laws</a>	
 • <a href="#">§ 1839. Definitions</a>	

# The Defend Trade Secret Act (DTSA) in the US (2)

## 18 U.S. Code §1839. Definitions

(3) the term **“trade secret”** (TS) means **all forms and types of financial, business, scientific, technical, economic, or engineering information**, including patterns, plans, compilations, program devices, formulas, designs, prototypes, methods, techniques, processes, procedures, programs, or codes, whether tangible or intangible, and whether or how stored, compiled, or memorialized physically, electronically, graphically, photographically, or in writing **if**

(A) **the owner thereof has taken reasonable measures to keep such information secret; and**

(B) **the information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, another person who can obtain economic value from the disclosure or use of the information;**

(4) the term **“owner”**, with respect to a TS, means the person or entity in whom or in which rightful legal or equitable title to, or license in, the TS is reposed;

# The Defend Trade Secret Act (DTSA) in the US (3)

## 18 U.S. Code §1839. Definitions (cont)

(5) the term **“misappropriation”** (*apropiación indebida*) means:

(A) **acquisition** of a TS of another by a person who knows or has reason to know that the TS was acquired **by improper means**; or

(B) **disclosure or use** of a TS of another **without express or implied consent** by a person who

(i) used **improper means** to acquire knowledge of the TS,

(ii) at the time of disclosure or use, knew or had reason to know that the knowledge of the TS was

(I) derived from or through a person who had used **improper means** to acquire the TS;

(II) acquired under circumstances giving rise to a **duty to maintain the secrecy** of the TS or limit the use of the TS; or

(III) derived from or through a person who owed a duty to the person seeking relief to maintain the secrecy of the TS or limit the use of the TS; or

(iii) before a material change of the position of the person, knew or had reason to know that

(I) the TS was a TS; and

(II) knowledge of the TS had been acquired by accident or mistake;

(6) the term **“improper means”**

(A) includes theft, bribery, misrepresentation, breach or inducement of a breach of a duty to maintain secrecy, or **espionage** through electronic or other means; and

(B) **does not include reverse engineering, independent derivation, or any other lawful means of acquisition;**

# The Defend Trade Secret Act (DTSA) in the US (4)

## DTSA Civil Seizure [*confiscación, incautación*]

The DTSA provides for an **ex parte civil seizure mechanism**. Civil seizure is a **preventative tool employed prior to a finding of misappropriation** by which a court may “issue an order providing for the seizure of property necessary to prevent the propagation or dissemination of the TS that is the subject of the action.”

Using this tool, an employer aware of a potential misappropriation of its TS may quickly prevent further dissemination of that information during the pendency of a formal DTSA case. Following issuance of a seizure order, the court must hold a seizure hearing where the party who obtained the seizure order has the burden to prove the facts underlying the order.

Civil seizure may be ordered only in “extraordinary circumstances” and requires a showing that... cf.: 18 U.S.C. § 1836(b)(2)(A)(ii).

**Since *Alice*, TS have become an option to protect now-unpatentable inventions that involve software, data, or algorithms.**

**TS are also an alternative to patents where there’s a lot of prior art, such as processes to manufacture active pharmaceutical ingredients, particularly biologics. It all depends on what will be published by the regulatory agency (the FDA in the case of medicines).**

# Protección penal de los secretos en España

## Ley Orgánica 10/1995 del Código Penal (actualizada 2.03.2019)

TÍTULO X. Delitos contra la intimidad, el derecho a la propia imagen y la inviolabilidad del domicilio

CAPÍTULO I. Del descubrimiento y revelación de secretos

**Artículo 197. 1. El que, para descubrir los secretos o vulnerar la intimidad de otro, sin su consentimiento, se apodere de sus papeles, cartas, mensajes de correo electrónico o cualesquiera otros documentos o efectos personales, intercepte sus telecomunicaciones o utilice artificios técnicos de escucha, transmisión, grabación o reproducción del sonido o de la imagen, o de cualquier otra señal de comunicación, **será castigado con las penas de prisión de uno a cuatro años y multa de doce a veinticuatro meses.****

.....

TÍTULO XIII. Delitos contra el patrimonio y contra el orden socioeconómico

CAPÍTULO XI. De los delitos relativos a la propiedad intelectual e industrial, al mercado y a los consumidores

Sección 3.ª De los delitos relativos al mercado y a los consumidores

**Artículo 278. 1. El que, para descubrir un secreto de empresa se apoderare por cualquier medio de datos, documentos escritos o electrónicos, soportes informáticos u otros objetos que se refieran al mismo, o empleare alguno de los medios o instrumentos señalados en el apartado 1 del artículo 197, **será castigado con la pena de prisión de dos a cuatro años y multa de doce a veinticuatro meses.****

2. Se impondrá la pena de prisión de tres a cinco años y multa de doce a veinticuatro meses **si se difundieren, revelaren o cedieren a terceros los secretos descubiertos. ...**

## 2. Considerar pros y contras -incluyendo riesgos- de ambas formas de protección

### 2.1. Protección de la tecnología como know-how

#### 2.1.1. Objetos de protección

#### 2.1.2. Requisitos para protección y transferencia

### 2.1.3. Explotaciones en secreto, si los requisitos administrativos no exigen la divulgación

#### - Riesgos de espionaje industrial

#### - Riesgos de ingeniería inversa

- Riesgos de patentamiento posterior por terceros

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- Precauciones frente a la autodivulgación: clientes, visitantes...

- Barreras físicas

- Barreras contractuales: *non-disclosure agreements* (NDA)

When they are properly kept **confidential**,

## **undisclosed know-how**

(one of the two types of trade secrets, the other being undisclosed business information)

can be very valuable as a competitive asset and as an asset for technology transfer (via a know-how license)

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'Golden Rule': **When our own technology can be exploited as a secret, both from a technical and a regulatory point of view, our first working hypothesis should be not to patent it, and to exploit it in secret, creating evidence of exploitation**  
(cf. prior users' rights)



# Industrial espionage risks



**Unlawful acquisition, use or disclosure of trade secrets (INDUSTRIAL ESPIONAGE) is an important risk.**

But the main problem is the lack of experience and awareness of company managers about measures for trade secret protection [example of ceramics maker].

# When a trade secret cannot be used by competitors?

## Directive 2016/943. Article 4. Unlawful acquisition, use and disclosure of trade secrets

1. Member States shall ensure that trade **secret holders are entitled** to apply for the measures, procedures and remedies provided for in this Directive in order **to prevent, or obtain redress for, the unlawful acquisition, use or disclosure of their trade secret.**

2. The acquisition of a trade secret without the consent of the trade secret holder shall be considered unlawful, whenever carried out by:

(a) unauthorised access to, appropriation of, or copying of any documents, objects, materials, substances or electronic files, lawfully under the control of the trade secret holder, containing the trade secret or from which the trade secret can be deduced;

(b) any other conduct which, under the circumstances, is considered contrary to honest commercial practices.

(cont.)

# When a trade secret cannot be used by competitors? (cont.)

## Directive 2016/943. Article 4. Unlawful acquisition, use and disclosure of trade secrets (cont.)

3. **The use or disclosure** of a trade secret shall be considered **unlawful whenever carried out**, without the consent of the trade secret holder, **by a person** who is found to meet any of the following conditions:

- (a) **having acquired the trade secret unlawfully**;
- (b) **being in breach of a confidentiality agreement or any other duty not to disclose** the trade secret;
- (c) **being in breach of a contractual or any other duty** to limit the use of the trade secret.

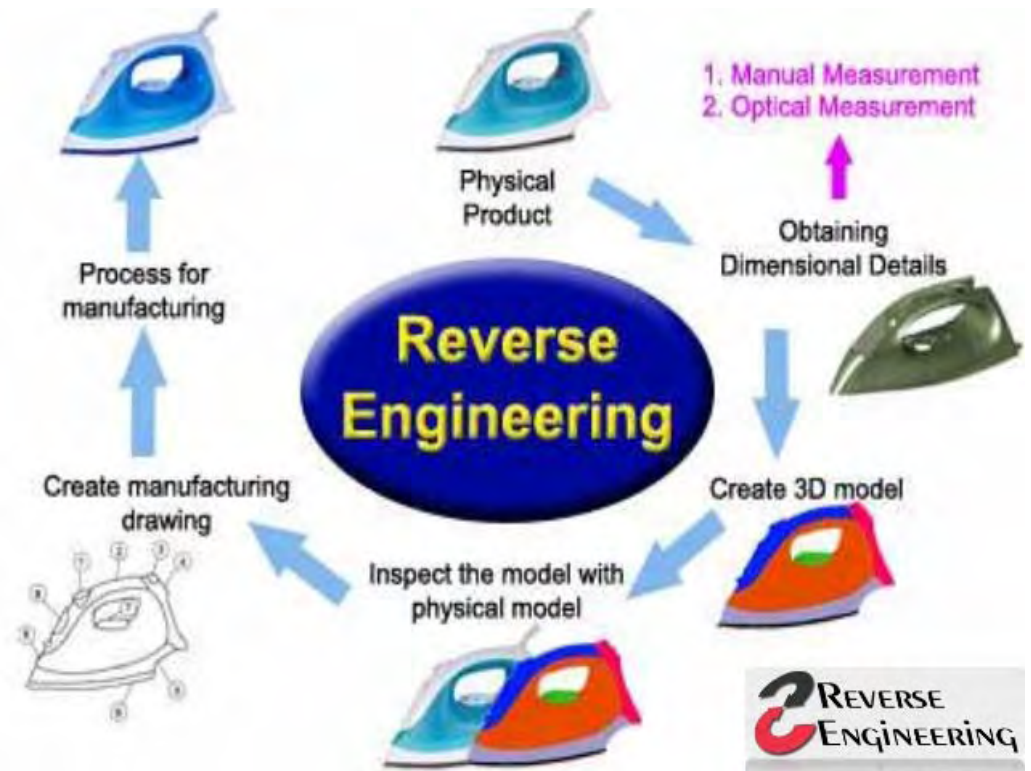
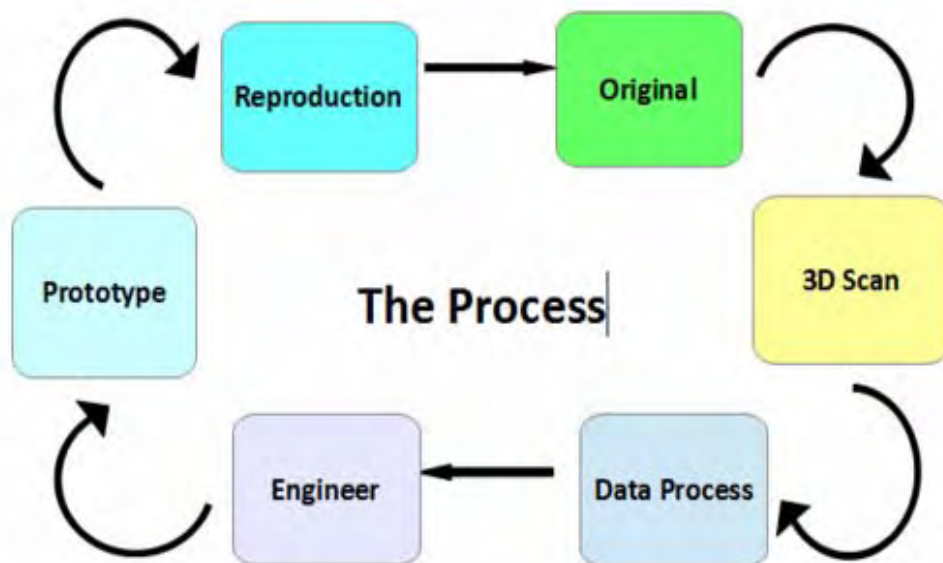
4. **The acquisition, use or disclosure of a trade secret** shall also be considered unlawful **whenever a person**, at the time of the acquisition, use or disclosure, **knew or ought, under the circumstances, to have known** that the trade secret had been obtained directly or indirectly from another person who was using or disclosing the trade secret unlawfully within the meaning of paragraph 3.

5. **The production, offering or placing on the market of infringing goods, or the importation, export or storage of infringing goods for those purposes**, shall also be considered an unlawful use of a trade secret where the **person** carrying out such activities **knew, or ought, under the circumstances, to have known** that the trade secret was used unlawfully within the meaning of paragraph 3.

# Reverse engineering risks

**Reverse engineering**, also called **back engineering**, is the process by which **a man-made object is deconstructed to reveal its designs, architecture, or to extract knowledge from the object.**

Reverse engineering is applicable in the fields of mechanical engineering, electronic engineering, software engineering, chemical engineering, systems biology, etc.



# When a trade secret can be used by competitors?

## Directive 2016/943. Article 3 Lawful acquisition, use and disclosure of trade secrets

1. The acquisition of a trade secret **shall be considered lawful when** the trade secret is **obtained by any of the following means**:

(a) **independent discovery or creation**;

(b) **observation, study, disassembly or testing of a product or object that has been made available to the public [reverse engineering]** or that is lawfully in the possession of the acquirer of the information who is free from any legally valid duty to limit the acquisition of the trade secret;

(c) exercise of the right of workers or workers' representatives to information and consultation in accordance with Union law and national laws and practices;

(d) **any other practice** which, under the circumstances, is in conformity with **honest commercial practices**.

2. The acquisition, use or disclosure of a trade secret shall be considered lawful to the extent that such acquisition, use or disclosure **is required or allowed by Union or national law**.

## 2. Considerar pros y contras -incluyendo riesgos- de ambas formas de protección

### 2.1. Protección de la tecnología como know-how

2.1.1. Objetos de protección

2.1.2. Requisitos para protección y transferencia

### **2.1.3. Explotaciones en secreto, si los requisitos administrativos no exigen la divulgación**

- Riesgos de espionaje industrial

- Riesgos de ingeniería inversa

**- Riesgos de patentamiento posterior por terceros**

**- Derechos de preuso (*prior user's rights*) en distintos países**

- Venta secreta como estado de la técnica en US (SC, 2019, *Helsinn vs Teva*)

2.1.4. Protocolos sobre "medidas razonables para mantenerlo en secreto"

## El derecho de preuso como excepción a la infracción de una patente:

El derecho a seguir haciendo lo  
que uno venía haciendo o para lo  
que se había preparado

Miguel Vidal-Quadras Trias de Bes  
Dr. en Derecho. Abogado

# Prior user's rights, in Spain and in UPCA members

## Art. 63.1 LP2015 [Art. 54.1 LP1986]. Derechos derivados de la utilización anterior

1. El titular de una **patente** **no** tiene derecho a **impedir** que quienes **de buena fe y con anterioridad** a la fecha de prioridad de la patente hubiesen venido **explotando en España** lo que resulte constituir el objeto de la misma, **o hubiesen hecho preparativos serios y efectivos para explotar** dicho objeto, **prosigan o inicien su explotación** en la misma forma en que la venían realizando hasta entonces o para la que habían hecho los preparativos y en la medida adecuada para atender a las necesidades razonables de su empresa. **Los derechos de explotación solo son transmisibles juntamente con las empresas que los vengan ejerciendo.**

---

## Art. 28 UPCA2013 [Art. 38.1 CPC1975]. Right based on prior use of the invention [not yet in force]

Any person, **who, if a national patent had been granted in respect of an invention, would have had, in a Contracting Member State, a right based on prior use** of that invention **or** a right of **personal possession** of that invention, shall **enjoy, in that Contracting Member State, the same rights** in respect of a patent for the same invention. **[ Prior use in DE, GB, IT, NL, BE, AT, etc. Personal possession in FR, that can be proved by an *enveloppe Soleau* presented at INPI. US see later ]**





La gran empresa **US-factory Inc.** y la pyme **ES-fábrica S.A.** eran los **únicos fabricantes mundiales del producto químico P**, usado en agricultura.

**En ES-fábrica S.A. se inventó un nuevo procedimiento de obtención del producto químico P, mediante una nueva secuencia de reacciones**

**En ES-fábrica S.A. se decidió fabricar P en secreto mediante el nuevo procedimiento, no por desconfianza en el sistema de patentes, sino por lo caro e incierto de un posible litigio en US. Se llamó al autor, como experto químico, para que elaborase un informe técnico sobre el procedimiento, informe que, junto con otros documentos sobre previsiones de fabricación, se depositaron en un notario.**

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WE TEAM UP WITH YOU

Sharing your effort and helping safeguard your ideas and your image.  
We pedal together on the journey from concept to success.

IP expertise and enthusiasm



Managing  
Intellectual  
Property  
Tier1 2007-2017



accessed on 2018-04-03

## Awards



## Know-how v. Patents, Prior User Rights Provisions, and Helsinn Healthcare S.A. v. Teva Pharmaceuticals USA, Inc.

Each research project with commercial interest must assess whether it is better to keep the results obtained as know-how or to protect inventions based on them by means of patents. In many cases the situation is complex and different aspects must be taken into account in order to make the right decision. Perhaps the most important question that must be asked in order to make this decision is the following: if the invention were to be kept secret, how long would it take competitors to reach it?

To answer the previous question, the holder of the results must take into account the possible leaks of information from the company, the mobility of the workers and, of course, reverse engineering on the marketed products that the competitors could carry out.

If one chooses know-how over patenting, despite the fact that a correct assessment has been made and the necessary precautions have been taken, it cannot be excluded that a third party not linked to the person who developed the technology in the first place may subsequently protect it by patents. Faced with this possibility, it is important that the holder of the secret secures their right to exploit the product or process.

By Bernabé Zea

ZBM Patents & Trademarks

In Europe, and in most countries, the third party's possible patent would be valid despite not having been the first inventor, since know-how is not part of the state of the art. However, most patent laws in European countries have user rights provisions to protect the first to exploit a technology.

This right prevents a patent owner from excluding anyone who in good faith has exploited a product or process, or made serious and effective preparations for its exploitation, from continuing or commencing its exploitation, provided that these acts precede the priority date of the patent. However, this right has very important limitations.

One of these limitations is the difficulty of proving sufficiently and reliably that the exploitation or serious preparations were actually taking place. It is common for companies that secretly exploit products and processes to secure evidence of such exploitation by notarial deposits or similar methods, such as the French Soleau Enveloppe, which allow dating of previous use.

Another important limitation of the prior user rights is that it is generally limited to the territory where the exploitation is taking place. Thus, for example, in Germany, the United Kingdom, France and Spain, it is not allowed to start exploitation after the priority of the patent, even if the company has already exploited the object of the patent in other territories. In other words, the prior user rights may be limited to certain territories, preventing the international expansion of the company that exploits a technology in secret. This is one of the most important risks from a business point of view when choosing to exploit in secret.

By Bernabé Zea

ZBM Patents & Trademarks

Pascual Segura - Centre de Patents de la Universitat de Barcelona

## 2. Considerar pros y contras -incluyendo riesgos- de ambas formas de protección

### 2.1. Protección de la tecnología como know-how

2.1.1. Objetos de protección

2.1.2. Requisitos para protección y transferencia

### 2.1.3. Explotaciones en secreto, si los requisitos administrativos no exigen la divulgación

- Riesgos de espionaje industrial
- Riesgos de ingeniería inversa
- Riesgos de patentamiento posterior por terceros
- Derechos de preuso (*prior user's rights*) en distintos países

**- Venta secreta -en cualquier país- como estado de la técnica en US (*Helsinn v. Teva, US SC 2019*)**

2.1.4. Protocolos sobre "medidas razonables para mantenerlo en secreto"

# On-Sale Bar in US: 35 U.S.C. §102 (pre-AIA & current)

**35 U.S.C. §102 (pre-AIA) Conditions for patentability; novelty and loss of right to patent.**

A person shall be **entitled to a patent unless**

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

(b) **the invention was** patented or described in a printed publication in this or a foreign country or in public use or **on sale in this country, more than one year prior to the date of the application for patent in the United States**, or (c); or (d); or (e); or

(f) **he did not himself invent the subject matter sought to be patented, *[first-to-invent]***; or (g).

**35 U.S.C. §102 Conditions for patentability; novelty.**

(a) NOVELTY; PRIOR ART. A person shall be **entitled to a patent unless**

(1) **the claimed invention was** patented, described in a printed publication, or in public use, **on sale ~~[in this country]~~, or otherwise available to the public before the effective filing date of the claimed invention**; or

(2) **the claimed invention was described in a patent issued..., or in an application for patent published or deemed published..., in which the patent or application names another inventor and was effectively filed before the effective filing date of the claimed invention. ***[first-inventor-to-file]*****

(b) EXCEPTIONS. (c). (d)

# SUPREME COURT OF THE UNITED STATES

## Syllabus

### HELSINN HEALTHCARE S. A. *v.* TEVA PHARMACEUTICALS USA, INC., ET AL.

#### CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

No. 17–1229. Argued December 4, 2018—Decided January 22, 2019

Petitioner Helsinn Healthcare S. A. makes a treatment for chemotherapy-induced nausea and vomiting using the chemical palonosetron.

While Helsinn was developing its palonosetron product, it entered into two agreements with another company granting that company the right to distribute, promote, market, and sell a 0.25 mg dose of palonosetron in the United States. The agreements required that the company keep confidential any proprietary information received under the agreements. Nearly two years later, in January 2003, Hel-

sinn filed a provisional patent application covering a 0.25 mg dose of palonosetron. Over the next 10 years, Helsinn filed four patent applications that claimed priority to the January 2003 date. Relevant here, Helsinn filed its fourth patent application in 2013. That patent (the '219 patent) covers a fixed dose of 0.25 mg of palonosetron in a 5 ml solution and is covered by the Leahy-Smith America Invents Act (AIA).

## Syllabus

In 2011, respondents Teva Pharmaceutical Industries, Ltd., and Teva Pharmaceuticals USA, Inc. (collectively Teva), sought approval to market a generic 0.25 mg palonosetron product. Helsinn sued Teva for infringing its patents, including the '219 patent. Teva countered that the '219 patent was invalid under the “on sale” provision of the AIA—which precludes a person from obtaining a patent on an invention that was “in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention,” 35 U. S. C. §102(a)(1)—because the 0.25 mg dose was “on sale” more than one year before Helsinn filed the provisional patent application in 2003. The District Court held that the AIA’s “on sale” provision did not apply because the public disclosure of the agreements did not disclose the 0.25 mg dose. The Federal Circuit reversed, holding that the sale was publicly disclosed, regardless of whether the details of the invention were publicly disclosed in the terms of the sale agreements.



## Syllabus

*Held:* A commercial sale to a third party who is required to keep the invention confidential may place the invention “on sale” under §102(a). The patent statute in force immediately before the AIA included an on-sale bar. This Court’s precedent interpreting that provision supports the view that a sale or offer of sale need not make an invention available to the public to constitute invalidating prior art. See, e.g., *Pfaff v. Wells Electronics, Inc.*, 525 U. S. 55, 67. The Federal Circuit had made explicit what was implicit in this Court’s pre-AIA precedent, holding that “secret sales” could invalidate a patent. *Special Devices, Inc. v. OEA, Inc.*, 270 F. 3d 1353, 1357. Given this settled pre-AIA precedent, the Court applies the presumption that when Congress reenacted the same “on sale” language in the AIA, it adopted the earlier judicial construction of that phrase. The addition of the catchall phrase “or otherwise available to the public” is not enough of a change for the Court to conclude that Congress intended to alter the meaning of “on sale.” *Paroline v. United States*, 572 U. S. 434, and *Federal Maritime Comm’n v. Seatrain Lines, Inc.*, 411 U. S. 726, distinguished. Pp. 5–9.

855 F. 3d 1356, affirmed.

THOMAS, J., delivered the opinion for a unanimous Court.

A recent decision by the US Supreme Court, Helsinn Healthcare S.A. v. Teva Pharmaceuticals USA, Inc., 17-1229, slip opinion at 8 - 9 (January 22<sup>nd</sup>, 2019), gives new value to these notarial deposits in certain situations. Despite the change in the U.S. system, with the introduction of the first-inventor-to-file system instead of first-to-invent system, according to this decision, selling or offering for sale anywhere, even in secret, is a precedent for U.S. patent applications, and may be sufficient to invalidate a granted U.S. patent. In contrast, the mere internal use of a product or process in secret cannot be used against the validity of a U.S. patent.

Within this framework established by the entry into force of the AIA and the Helsinn Healthcare S.A. v. Teva Pharmaceuticals USA, Inc. decision, whenever possible, an attempt should be made to secure not only evidence of the internal use of a product or process, but also additional evidence showing the non-public sale or offering of the product or process.

**BZ's advice**

There is no doubt that the position of a company that secretly exploits a technology, in the face of a possible infringement suit by a subsequent patent family owner, will be much more favorable if apart from the prior user rights in certain territories, it can argue against the validity of that family's U.S. patent.

This new context makes know-how more interesting for a company. It is easy to understand that a patent owner may prefer to negotiate rather than to sue a third party for infringement, which may be covered by a prior user rights. The risk for the patent owner would not be limited to the possibility of losing the lawsuit, but also to a possible claim for nullity in the United States based on secret sales or offers in other countries.

By Bernabé Zea

## 2. Considerar pros y contras -incluyendo riesgos- de ambas formas de protección

### 2.1. Protección de la tecnología como know-how

2.1.1. Objetos de protección

2.1.2. Requisitos para protección y transferencia

2.1.3. Explotaciones en secreto, si los requisitos administrativos no exigen la divulgación

### 2.1.4. Protocolos sobre "medidas razonables para mantenerlo en secreto"

- Auditorías iniciales y de seguimiento
- Segregación, identificación y rotulación del know-how
- Delimitación del acceso de empleados
- Precauciones frente a la autodivulgación: clientes, visitantes...
- Barreras físicas
- Barreras contractuales: *non-disclosure agreements (NDA)*

# Establishing & maintaining a TS protection plan (1)

Trade secret audits should be conducted to determine (1) **what measures are in place to secure TS**, (2) whether these measures are effective, and (3) what additional measures, if any, need to be put in place.

The following questions can help organize an audit:

- Are there procedures in place to identify TS ?
- Are there any measures currently in place to safeguard TS?
- What are they?
- Where are the TS located?
- Who has access to them?
- Are written policies concerning safeguarding TS in place?
- **Who signs non-disclosure agreement (NDA)? Why?**
- What can be done further to safeguard TS?

**The TS protection plan should be in writing and may include -among others- measures mentioned in the two following slides.**

## Establishing & maintaining a TS protection plan (2)

- **TS should be segregated from non-TS** to differentiate between what the company regards as a TS and what it does not.
- **Documents, items and software containing TS should be properly labeled** using the following or similar legends: TRADE SECRET, SECRET, CONFIDENTIAL, or PROPRIETARY INFORMATION.
- **Contractual barriers: appropriate non-disclosure agreements (NDA) should be signed by all** employees, independent contractors, consultants, vendors, suppliers, licensees, and others that may, for any reason, will have access to TS, **before** the TS information /items are seen, discussed or revealed.
- **Employee/contractors should be educated to understand the TS protection plan** from the first day of work/contract, promulgating notice measures, and educating them about industrial espionage.
- **Physical security barriers should be established**, such as: block access to persons who don't need to know; keep TS in a locked room with "Authorized Personnel Only"; keep TS under lock and key in appropriate file cabinets; use access codes to enter buildings or rooms; encode or encrypt TS info; lock laptops in safe cabinets; use appropriate access codes/passwords and security software for computers; work with computers without USB or CD, and limited networks; create an environment of confidentiality; implement a clean desk policy; maintain all confidential info out of sight

## Establishing & maintaining a TS protection plan (3)

- **Establish additional steps to keep confidential document secret**, such as: serialize and register TS documentation and materials; safeguard photocopied documents from getting into the wrong hands; do not fax or e-mail TS info, or do it using proper encryption technology and marking materials with appropriate TS legends; shred all confidential documents that are not needed duplications...
- **Prevent dissemination of TS to others** by measures such as: controlling presentations, public speeches, web site info, press releases...; and requiring employees, contractors, consultants, and others to obtain written permission if they desire to disclose or use info that may be confidential, proprietary or TS.
- **Conduct exit interview with departing personnel**, reviewing the terms of the NDA, reminding of non-disclosure duties, obtaining TS materials and documents in the employee's possession or control, including keys and access cards.
- **Control visitors and repair or service persons**, not allowing them to wander freely, by appropriate log book, escorting, draping machinery that need not be seen, etc.
- **Conduct routine TS audits**, to identify new TS and to review the existing TS protection plan, updating it as necessary.

# Non-disclosure/confidentiality/secretcy agreements

A **non-disclosure agreement (NDA)**, also known as **confidential disclosure agreement (CDA)**, proprietary information agreement, confidentiality agreement or secrecy agreement, is a **legal contract between at least two parties that outlines confidential material, knowledge, or information that the parties wish to share with one another for certain purposes, but wish to restrict access to or by third parties.**

**NDAs include the definition of what is confidential**, i.e. the information to be held confidential. **Modern NDAs will typically include a laundry list of types of items which are covered, including unpublished patent applications, know-how**, schema, financial information, verbal representations, customer lists, vendor lists, business practices/strategies,...

**It is possible for an employee to sign an NDA or NDA-like agreement with an employer.** In fact, some employment agreements will include a clause restricting employees' use and dissemination of company-owned confidential information. In legal disputes resolved by settlement, the parties often sign a confidentiality agreement relating to the terms of the settlement.

([https://en.wikipedia.org/wiki/Non-disclosure\\_agreement](https://en.wikipedia.org/wiki/Non-disclosure_agreement); accessed 2019-04-01)

# Is a doctor (or an attorney) an 'access-restricted third party'?



“I really can’t talk about my childhood. Before I left home, they made me sign a confidentiality agreement.”



# Is the spouse an 'access-restricted third party'?

In an episode of this TV series, Diane Lockhart's husband says he cannot tell her where and with whom he was the previous day...

First she was suspicious of an 'affaire', but later she deduced that the reason was that he had signed an NDA!

## The Good Fight Short "NDA"



# A typical Non-disclosure Agreement (excerpts): A PROFESSOR gives a patent in-house course in a COMPANY (1)

## 1. DEFINICIÓN DE INFORMACIÓN CONFIDENCIAL

La **INFORMACIÓN CONFIDENCIAL** incluye cualquier información de o relativa a **LA EMPRESA** a la que haya tenido o tenga acceso **EL PROFESOR** como consecuencia o en relación con la prestación de sus servicios de formación, en particular la información transmitida por los empleados de **LA EMPRESA** a **EL PROFESOR** en virtud de este Acuerdo.

En particular, la **INFORMACIÓN CONFIDENCIAL** puede referirse a tecnología, desarrollo, idea, diseño, trabajo, proceso, know-how, cálculo, manual, método, solución, modificación, análisis o interés, que se transmita, directa o indirectamente, en forma oral o escrita, y en cualquier soporte o formato.

Tendrá igualmente la condición de **INFORMACIÓN CONFIDENCIAL cualquier información que**, con arreglo a las circunstancias, **pueda ser identificada de buena fe como confidencial.**

No obstante, **no se considerará INFORMACIÓN CONFIDENCIAL aquélla que sea de dominio público en la fecha de la transmisión**, ni aquélla que se convierta en dominio público después de la transmisión por causas distintas a la violación de este Acuerdo, **ni aquélla que le fuese accesible a EL PROFESOR por sus propios medios** en la fecha de la transmisión.

# A typical Non-disclosure Agreement (excerpts): A PROFESSOR gives a patent in-house course in a COMPANY (2)

## 2. CONFIDENCIALIDAD

**EL PROFESOR garantiza la más estricta confidencialidad de la INFORMACIÓN CONFIDENCIAL que se le trasmite** como consecuencia o en relación con la prestación de sus servicios de formación, información que conservará con la máxima reserva, rigiéndose por los principios de precaución y secreto en el manejo de la misma.

**EL PROFESOR se atenderá, en todas sus actuaciones, al cumplimiento de las máximas exigencias éticas y deontológicas, protegiendo toda la INFORMACIÓN CONFIDENCIAL recibida.**

**EL PROFESOR se obliga a no divulgar, no sólo el contenido de la INFORMACIÓN CONFIDENCIAL transmitida, sino también el propio hecho de haber recibido dicha INFORMACIÓN CONFIDENCIAL, salvo previo consentimiento por escrito de LA EMPRESA. [sólo añadido al dar clase en un bufete de abogados]**

**¡Generalmente la firma de NDA se asocia más a seriedad que a desconfianza!**

# A typical Non-disclosure Agreement (excerpts): An University patent application is shown to a Company

The University has **filed a first Spanish patent application** and, during the priority year, **wants to find an interested Company**.

- **University shall disclose the Information** (photocopy of the patent application translated into English, other results or materials) on a [exclusive][non-exclusive] basis to Company.
- **The Company shall treat the Information confidentially** for the purpose of evaluation [for a given time], avoiding disclosure to third parties (not with respect non-secret information).
- **Should the Company be non-interested**, it shall return all information, not use for any other purpose, and be obliged of confidentiality for [5] years (unless made public before).

## 2. Considerar pros y contras -incluyendo riesgos- de ambas formas de protección (cont.)

### 2.1. Protección de la tecnología como know-how

## 2.2. Protección de la tecnología como patente

2.2.1. Objetos de protección

2.2.2. Solicitudes "de imagen" vs. solicitudes "genuinas"

2.2.3. Costes de patentar y mecanismos para posponerlos

2.2.4. Lo que no debe ponerse al redactar la solicitud. *US best mode*

2.2.5. Riesgos de autodivulgación: las peligrosas "divulgaciones inocuas"

2.2.6. Riesgos de falta de validez

2.2.7. Riesgos de falta de eficacia (*enforceability*)

### 2.3. Diferencias entre las protecciones de patente y de know-how



(11)

**EP 2 819 700 B1**

(12)

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WO 2013/127829 (06.09.2013 Gazette 2013/36)

(54) **PROTEASE-RESISTANT COMPOUNDS USEFUL AS SHUTTLES THROUGH THE BLOOD-BRAIN BARRIER AND SHUTTLE-CARGO CONSTRUCTS**

PROTEASERESISTENTE VERBINDUNGEN ZUR VERWENDUNG ALS SHUTTLES DURCH DIE BLUT-HIRN-SCHRANKE UND SHUTTLE-CARGO-KONSTRUKTE

COMPOSÉS RESISTANT AUX PROTÉASES UTILES COMME NAVETTES À TRAVERS LA BARRIÈRE HÉMATO-ENCEPHALIQUE ET PRODUIT DE CONSTRUCTION NAVETTE-CARGAISON

(84) Designated Contracting States:  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB  
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO  
PL PT RO RS SE SI SK SM TR

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(30) Priority: 27.02.2012 ES 201230294

(74) Representative: ZBM Patents - Zea, Barlocchi & Markvardsen  
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(56) References cited:  
WO-A1-2011/009624 WO-A2-2009/008725  
US-A1- 2007 231 300

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• CARMEN WÄ NGLER ET AL: "In vitro and Initial in vivo Evaluation of Ga-Labeled Transferrin Receptor (TfR) Binding Peptides as Potential Carriers for Enhanced Drug Transport into TfR Expressing Cells", MOLECULAR IMAGING AND BIOLOGY, SPRINGER-VERLAG, NE, vol. 13, no. 2, 15 May 2010 (2010-05-15), pages 332-341, XP019888350, ISSN: 1860-2002, DOI: 10.1007/s11307-010-0329-6

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Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

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**URKUNDE**

**CERTIFICATE**

**CERTIFICAT**

Es wird hiermit bescheinigt, dass für die in der Patentschrift beschriebene Erfindung ein europäisches Patent für die in der Patentschrift bezeichneten Vertragsstaaten erteilt worden ist:

It is hereby certified that a European patent has been granted in respect of the invention described in the patent specification for the Contracting States designated in the specification.

Il est certifié qu'un brevet européen a été délivré pour l'invention décrite dans le fascicule de brevet, pour les Etats contractants désignés dans le fascicule de brevet.

European Patent No.

European patent No.

Statut européen

**2819700**

Patentinhaber:

Proprietor of the patent:

Titulaires du brevet

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Baldri Reixac 4 - Torre D  
08028 Barcelona/ES**

Fundació Institut de Recerca Biomèdica (IRB Barcelona)  
Parc Científic de Barcelona  
C. Baldri Reixac, 10-12  
08028 Barcelona/ES

Wurden dem  
Munich,  
Teil a Munich, G

**21.12.16**

Benoît Battistelli

Präsident des Europäischen Patentamts  
President of the European Patent Office  
Président de l'Office européen des brevets

EP 2 819 700 B1



## Notícies

Inici > Notícies > La UB és la primera universitat de l'Estat en sol·licituds de patents...

## La UB és la primera universitat de l'Estat en sol·licituds de patents europees



Una de les tecnologies de la UB atorgades en llicència, que ha donat lloc a l'empresa ColorSensing.

13/03/2019

[Recerca](#)

La UB és la primera universitat de l'Estat espanyol pel que fa al nombre de sol·licituds de patents europees presentades, segons l'informe de l'Oficina Europea de Patents (OEP) publicat aquesta setmana. Aquesta fita coincideix amb el trentè aniversari de les primeres patents gestionades per la Universitat de Barcelona, primer a través del Centre de Patents i, més endavant, juntament amb la Fundació Bosch i Gimpera.

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- > [Fundació Josep Finestres](#)
- > [Fundació Montcelimar](#)

## 2.2.1. Objetos de protección

### What can be patented: two basic types of claims, with a sub-type

#### PRODUCT or ENTITY

- ELECTROMECHANICAL - includes MEDICAL DEVICES
- CHEMICAL (material; pure or mixed) - includes FOOD & COSMETIC
- PHARMACEUTICAL (for human or animal therapy, diagnosis or surgery)
- MICROBIOLOGICAL (alive and microscopic)
- BIOLOGICAL (self-replicating; ruled by Directive 44/98/EEC, in EPC)
- GENETIC INFORMATION (DNA, cDNA, etc.)

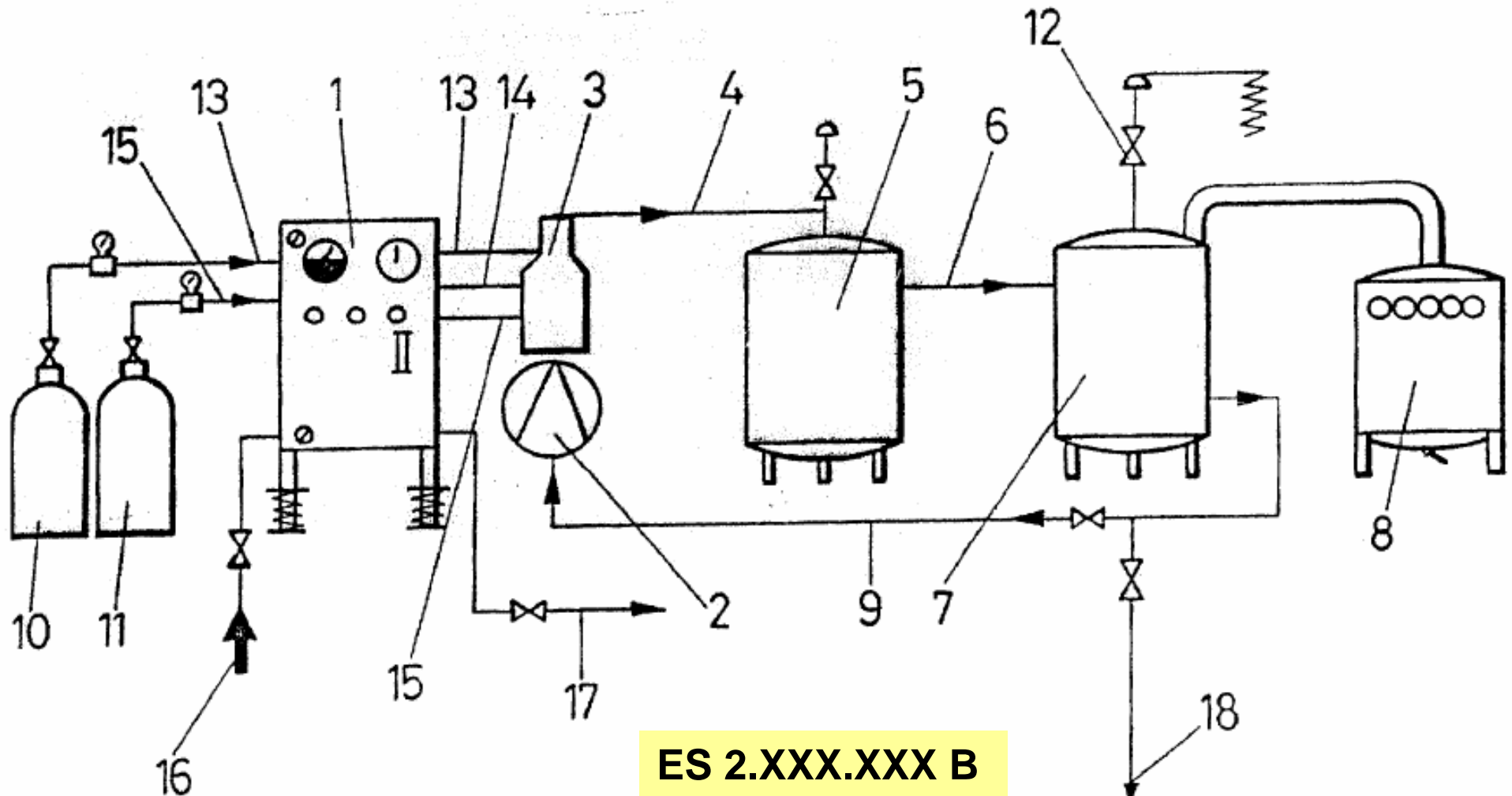
#### PROCESS, METHOD or ACTIVITY

- GENERAL: **any activity/process with industrial applicability**, sometimes in a given sequence, including a **process of using** or **use of a product** (medical uses have special draftings)
- PREPARATION: **a process to obtain a product**, also protecting the product *directly* obtained



## 2.2.2. Solicitudes "de imagen" vs. solicitudes "genuinas"

### Caso real de solicitud de patente "de imagen" muy lucrativa



**ES 2.XXX.XXX B**

**Instalación para el tratamiento de residuos hospitalarios**

# Caso real de solicitud de patente "de imagen" muy lucrativa. Informe del autor, actuando como asesor (fragmentos)

Desde el punto de vista formal la patente española ES 2.XXX.XXX B es aceptable, lo que explica que la OEPM la haya concedido. Aún así, en mi opinión es intrínsecamente nula por .... No obstante, dado que **es posible que esta patente sirva para dar una imagen tecnológica avanzada, para impresionar a las autoridades, como argumento publicitario, etc., convendrá mantenerla en vigor...**

Las descripciones de las tres solicitudes de patente (ES prioritario, y WO/EP derivadas) del inventor no aclaran, ni siquiera dejan entrever, qué aportan de nuevo para **solucionar el problema** del tratamiento y esterilización de residuos hospitalarios... Invertir más en las sols. WO y EP sería desperdiciar el dinero...

**Todo hace pensar que realmente lo valioso que se oculta tras las solicitudes de patente del inventor es un conocimiento técnico (know-how) de detalles importantes, no revelados en la patente.** Este *know-how*, adecuadamente identificado, podría ser objeto de transferencia de tecnología...

En una entrevista, el inventor explicó que **"no había puesto los detalles importantes para que no se los copiaran"**; y el CEO de la empresa, siguiendo el consejo del autor, decidió no invertir nada en patentes relativas a la 'invención', pero sí mantener la ES-B que tan "lucrativa" le había sido.

# La razón genuina para solicitar patentes: *obtener ius prohibendi* sobre cierta tecnología

El objetivo genuino es disfrutar -o transferir- el derecho a impedir la explotación de la invención de forma eficaz, lo que se presumirá si, y sólo si:

- La invención es susceptible de ser imitada
- Se confía en poder detectar la eventual infracción
- Se confía en poder probar la eventual infracción
- Se confía en que la posible condena del infractor compensaría los gastos y molestias en patentar, pleitear, etc.
- Se considera que la invención es patentable
- Se confía en convertir las solicitudes de patentes en patentes concedidas y válidas en los países de interés

**pero...**

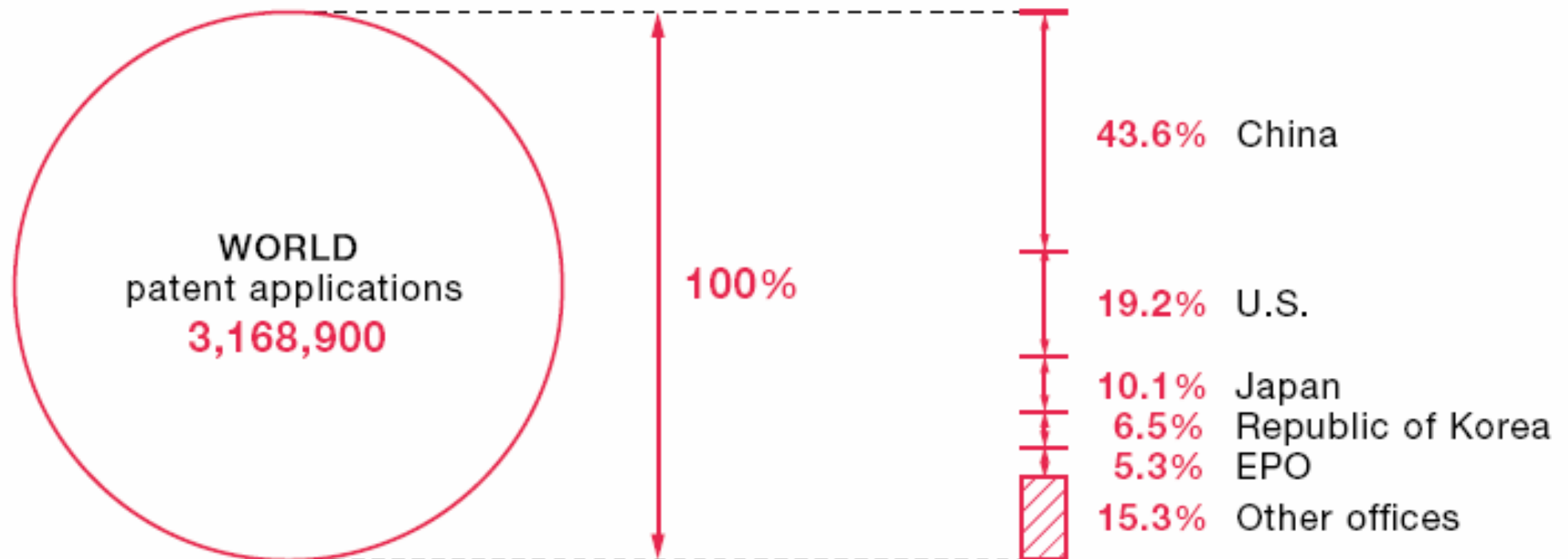
## Hay otras buenas razones para solicitar patentes ["solicitudes de imagen"], donde no importa su validez o eficacia, y que generalmente se abandonan o no se conceden

- Para **dar una imagen tecnológica avanzada**, que impresione y pueda servir para obtener homologaciones o subvenciones.
- Para **obtener desgravaciones fiscales** por inversión en I+D+i (p.ej. mediante el *Patent Box*)
- Por motivos de **marketing**: animar a empleados y vendedores, poder marcar p.ej. "patented" o "patent pending", etc.
- Para **publicar** a voluntad y precio moderado, **con intención de impedir que otro lo patente** (una alternativa a las publicaciones defensivas, como p.ej. *Research Disclosure*). Esto no tiene sentido si se hacen publicaciones científicas.
- **Para embellecer una licencia de know-how acompañándola de una licencia de patente.**
- Para **confundir** a competidores respecto a los verdaderos intereses del solicitante

# Total patent applications, 2017

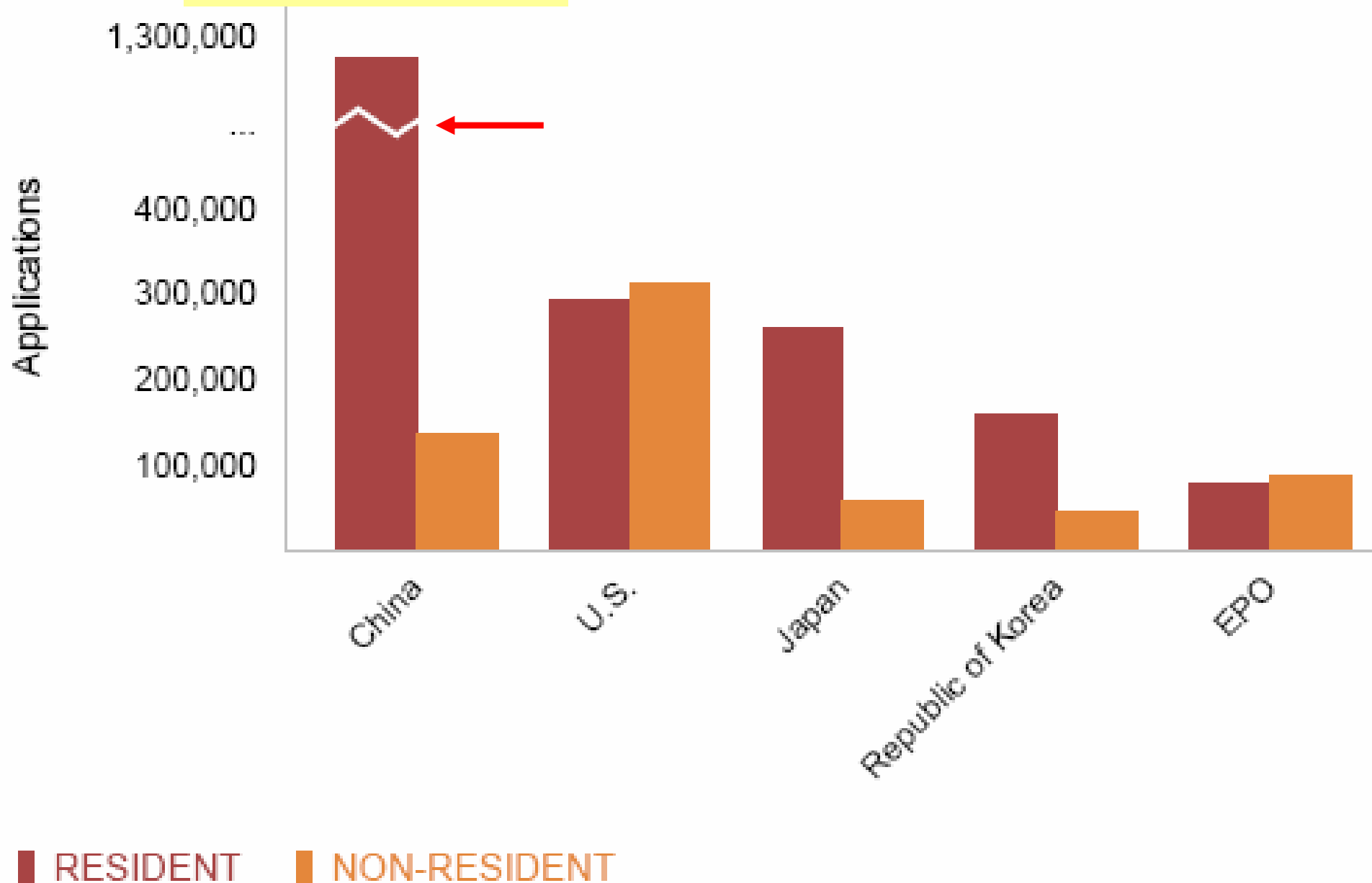
**The top five offices accounted for around 85% of the world total**

4. Percentage shares of total patent applications by the top five offices

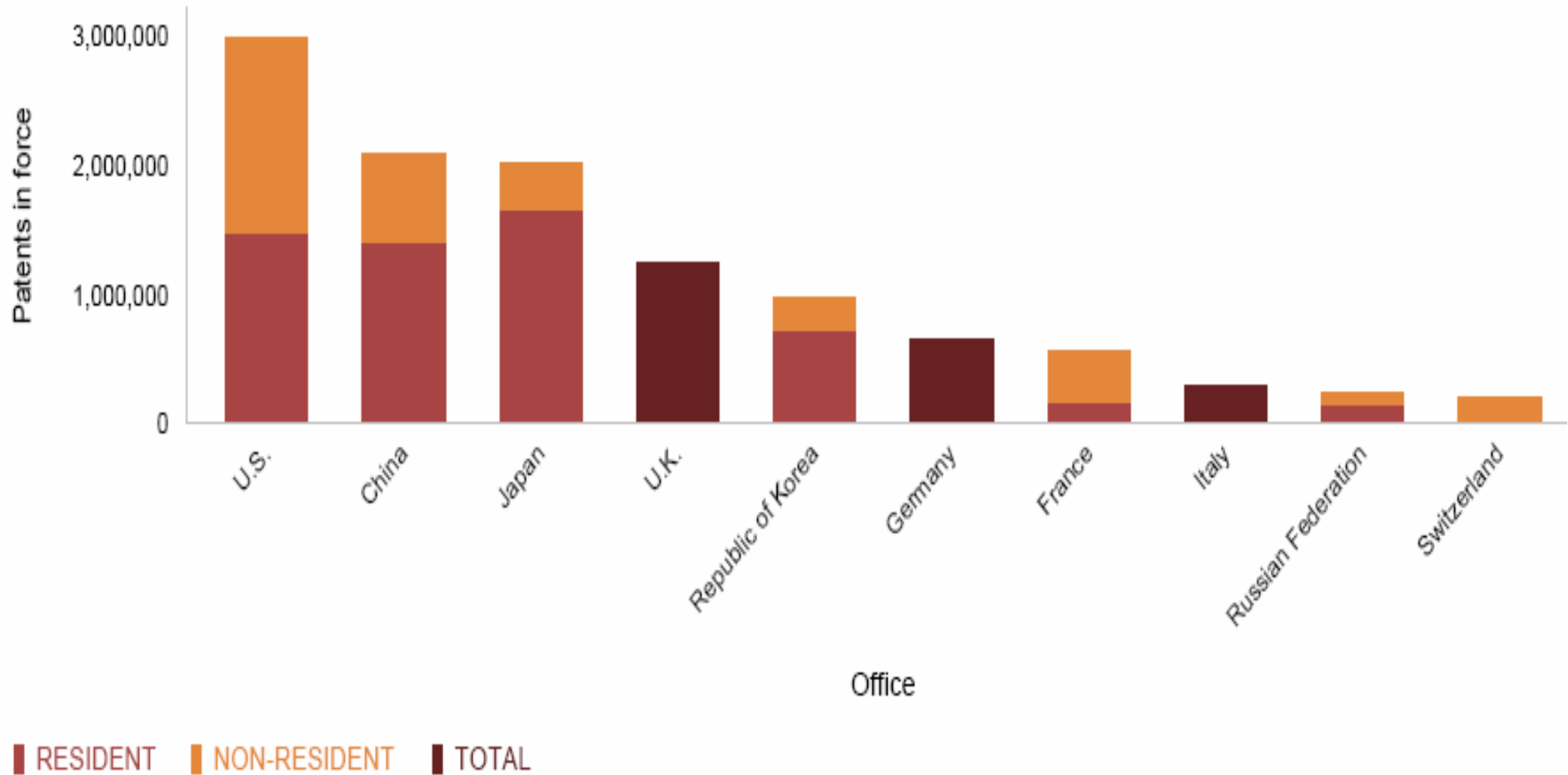


# Patent applications at the top 5 offices, 2017

2.072.311 in 2018 !



# Patents in force at the top 7 offices, 2017



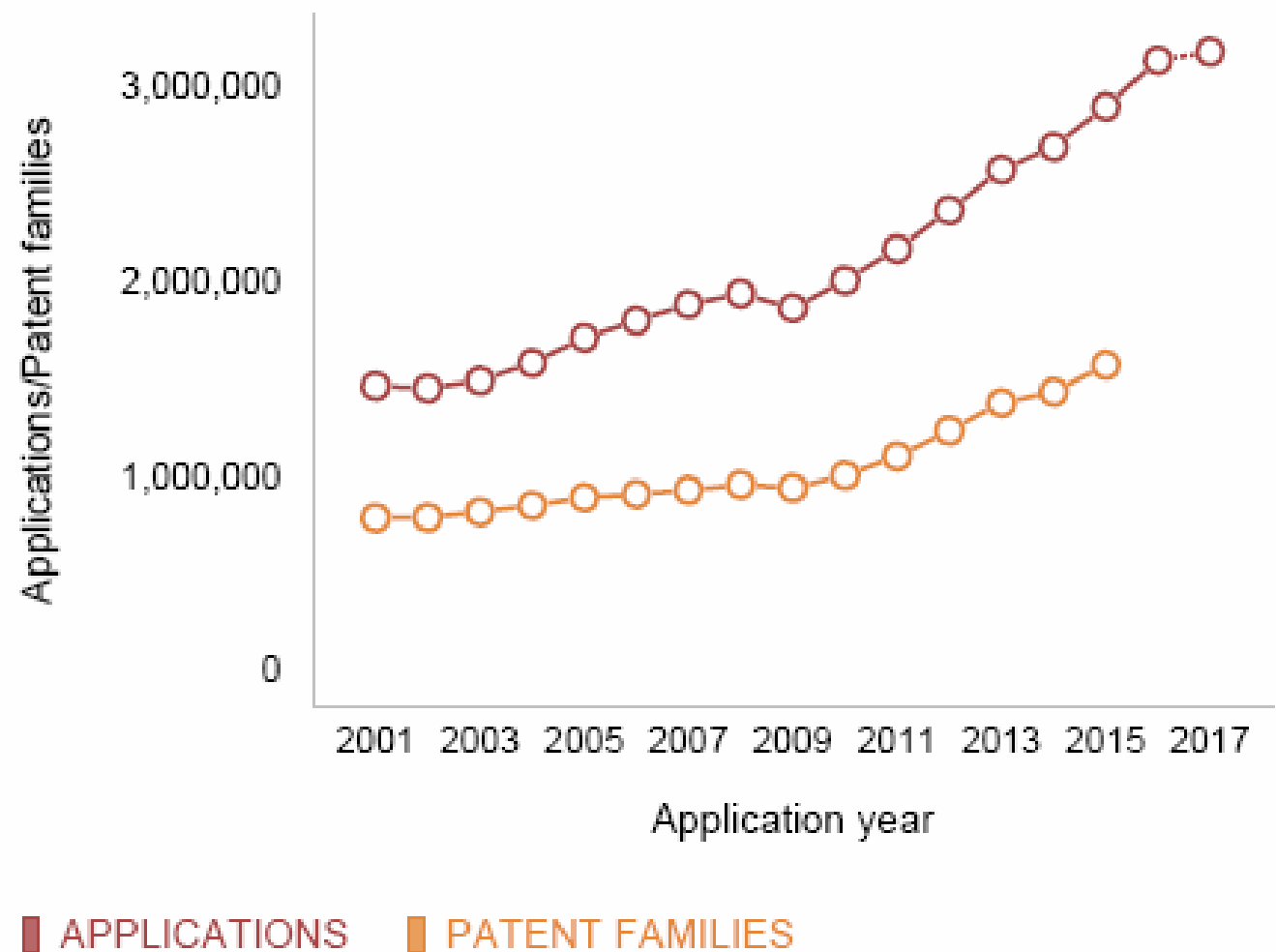
From about half of the inventions worldwide, a single patent and/or utility model appl. is filed, typically by residents.

In my opinion, many of them merely seek non-genuine benefits derived from: better CV, better tech. image, marketing, lower taxes, rewards, subsidies, etc.

Some of them are simply 'foolish'.

## Half of all applications were first filing, the other half repeat filings, mostly at foreign offices

1.5. Patent applications and patent families worldwide, 2001–2017





## 2.2.3. Costes de patentar y mecanismos para posponerlos

## 2.2.6. Riesgos de falta de validez

## 2.2.7. Riesgos de falta de eficacia (*enforceability*)

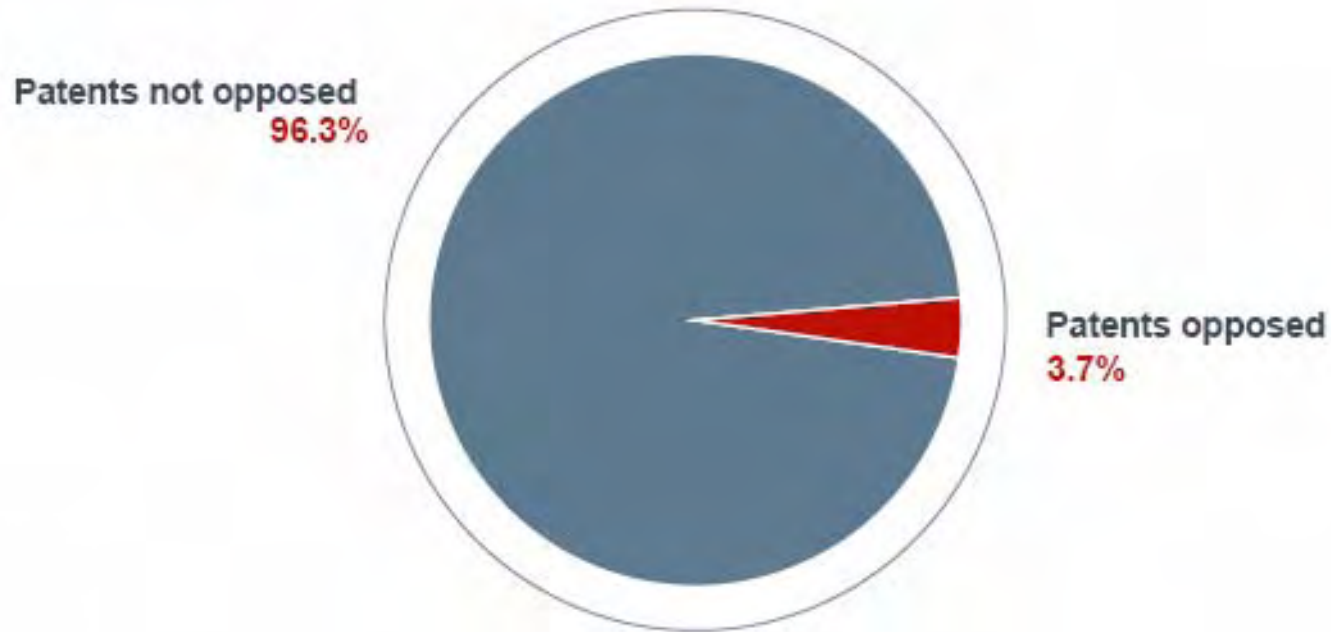
When in a given organization **technical solutions to technical problems (i.e. inventions) are found**, to protect them as **patents / utility models** may provide a competitive advantage by **exclusive exploitation** of the invention and/or by **transfer (licence, sale) of exploitation rights**

However, **decision makers should be properly advised and careful because:**

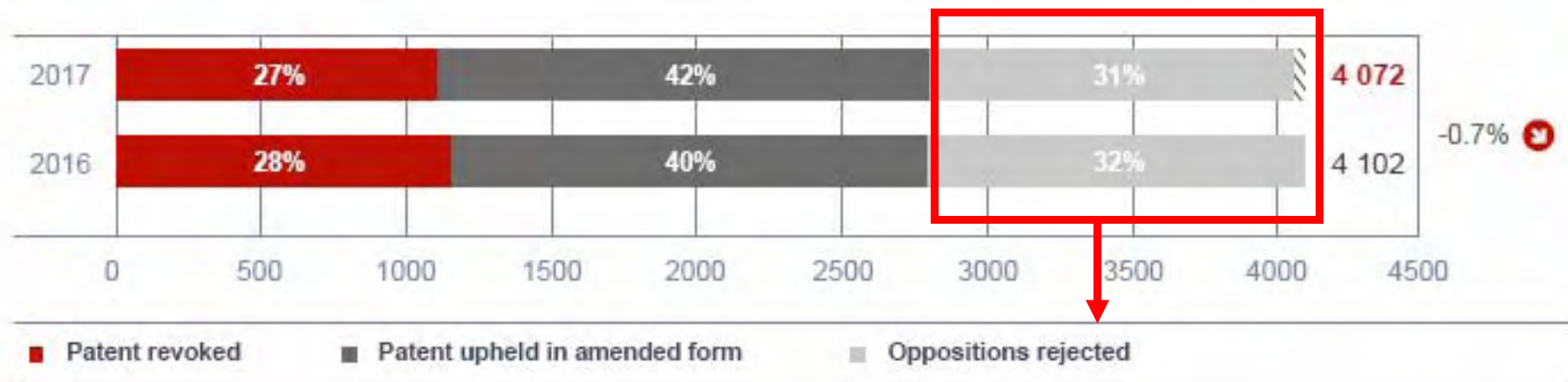
- **patenting is always an expensive investment**, particularly when trying to get granted patents **in several countries**, and
- **patenting may be a bad investment** in circumstances such as: **lack of validity** (typically due to uncertainty on prior art), **lack of enforceability** (typical with method claims), and/or lack of **commercial value** of the patented technology.

In any case, there are **mechanisms to postpone expenditure to some extent**, such as **the priority right** and **the PCT procedure** (to keep open 12 and 30 months respectively, the possibility of patenting in virtually all important countries), and the **EPO procedure** (for getting patents with a single procedure, than can be later validated in the European countries of interest)

# Less than 1/3 of opposed EP patents remain totally valid



Decisions in opposition cases



# Chances of a US patent being considered invalid in litigation

- Out of the 2,500 cases filed each year, **barely one in seven terminates with a court's judgment.** Most of the remaining cases were settled. It has been observed that most settlements occur prior to the pre-trial hearing.
- Of those patents that go through to a court ruling, many do not survive validity challenges. **Approximately 40% of those patents challenged on validity grounds are found invalid on summary judgment.** Assuming summary judgment of validity is survived, **approximately 30% are found invalid at trial.**
- There are also equitable challenges. Only in **less than 20% of the cases a patent does not survive a challenge on equitable conduct grounds.**
- However, since a defendant can proceed on multiple grounds against a patent, the cumulative effect of all validity and equitable challenges **results in a patent not surviving a challenge to its validity approximately 45% of the time.**

Cf. B. Hershkowitz (of Kenyon & Kenyon), "What Are My Chances? From Idea Through Litigation" in <http://library.findlaw.com/2003/Oct/16/133092.html> (and references therein)

# Decade of Declining US Patent Value

**2006:** More difficult to obtain permanent injunctions against infringers

**2007:** Licensee in good standing allowed to challenge validity of licensed patent

**2010 to 2014:** Creation of broad exceptions to patent eligible subject matter

**2012:** USPTO begins IPR and CBM proceedings (nullity actions)

**2016:** Infringement cases displaced from courts favored by patent owners

**2016:** Limits on design patent damages



# Patent invalidity determinations at USPTO

- AIA-created Patent Trial and Appeal Board (“**PTAB**”)
  - *Inter Partes Review* (“**IPR**”) ~ 1,400 filings/year
  - Covered Business Method (“**CBM**”) ~ 50 filings/year
  - Opposition-like Post-Grant Review (“**PGR**”) ~ 40 filings/year
- *Ex Parte* Reexamination (“**EPR**”) ~ 300 filings/year



- AIA-created PTAB “**death squads killing property rights**”:  
**CBMs, ~ 100% invalidation; IPRs “only” ~ 70%**
- With IPRs in 80% of district court cases, can increase cost (\$ 250k per party per IPR) and prolong resolution
- Despite “raised or reasonably could have raised” bar on any future USPTO and court validity challenges by same party, IPRs allow serial attacks on same patent
- Patent owner often must overcome multiple IPRs to reach infringement ruling

# Overview of major patent litigation systems

Characteristics	Jurisdiction							
	China	France	Germany	Japan	Netherlands	Republic of Korea	U.K.	U.S.
Bifurcated	Yes	No	Yes	Yes	No	Yes	No	No
Administrative post-grant review	No	Yes (EPO)	Yes (EPO, DPMA)	Yes	Yes (EPO)	Yes	Yes (EPO)	Yes
Jury trial	No	No	No	No	No	No	No	Yes
Preliminary injunction	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Criminal liability	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Average duration in first instance (months)	6–18	18–24	14	12–15	12	10–18	24–36	18–42
Level of damages	Low	Average	Average	Low	Low	Low	High	High
Punitive damages	No	No	No	No	No	No	No	Yes
Fee shifting	Limited	Limited	Limited	Limited	Full	Limited	Full (item-based)	Limited
Average costs in first instance ('000' USD)	20–150	60–250	90–250	300–500	70–250	150–400	1,000–2,000	1,000–6,000*
Number of courts first instance	18 specialized + regular courts	1	12 (+1 validity)	2	1	5	2	94
Specialized court/ judges first instance	Partly	Yes	Yes	Yes	Yes	Partly	Yes	No
Specialized court of appeal	Yes	No	No	Yes	No	Yes	No	Yes
Separate trial for damages	No	No	Yes	Yes	No	No	Yes	No
Utility models	Yes	No	Yes	Yes	No	Yes	No	No
Design patents	Yes	No	No	No	No	No	No	Yes

\* indicates median.

Note: EPO is the European Patent Office. DPMA is the Deutsche Patent- und Markenamt.

Source: AIPLA (2017), Clark (2011), Cremers *et al.* (2016a), Graham and van Zeebroeck (2014) and Thomson Reuters Practical Law.

# Overview of Spanish patent litigation system

Bifurcated	No
Administrative post-grant review	Yes
Jury trial	No
Preliminary injunction	Yes
Specialized court/judges first instance	Yes
<b>Trial courts of first instance</b>	JM 1, 4 & 5 Barcelona (*)
[ (*) = only patent cases]	JM 2 Valencia (*)
JM = <i>Juzgado de lo Mercantil</i>	JM 6-11 Madrid
(Commercial Law Court with a single Judge)	JM 1 A Coruña ( <i>started in Oct. 2018</i> )
	JM 2 Bilbao ( <i>idem</i> )
	JM 1 Granada ( <i>idem</i> )
	JM 1 Las Palmas ( <i>idem</i> )
Average duration in first instance (months)	18-24
<b>Approx. number of annual patent litigation filings</b>	<b>2015: 30 Bcn, 15 Mad, (?) Valencia</b> <b>2016: 44 Bcn, 9 Mad, (?) Valencia</b> <b>2017: 34 Bcn, 15 Mad, 10 Valencia</b>
Average costs in first instance ('000' USD)	80-180
	Subject to the court, loser pays a portion of winner costs
<b>Trial courts of second instance</b>	The 7 resp. Provincial Appeal Courts (Commercial Law Sections)
Average duration in second instance (months)	12-18
<b>Approx. patentee win rate</b>	<b>57% (34 out of 60, in 2013-2016)</b>

## 2.2.4. Lo que no debe ponerse en la solicitud de patente

- Lo que merezca la pena mantener como know-how (ver diapo siguiente)
- El know-how ajeno que no podemos -o no nos interesa- revelar
- Lo que sea **propiedad ajena**, si se puede evitar ponerlo
- La "**ciencia**" que sea **innecesaria** para la patentabilidad (discusiones, explicaciones, justificaciones, razonamientos, historia de la invención, datos comparativos innecesarios, etc.)
- **Estado de la técnica prolijo**: debemos poner sólo el "más próximo"
- Lo que queramos que pueda constituir **futuras invenciones de selección**
- Las **definiciones de conceptos bien conocidos** en el sector (la "paja")

**REGLA GENERAL: hay que poner sólo lo que sea necesario y suficiente para obtener un derecho de patente fuerte (válido y enforceable), ¡pero nada más! Así no "regalaremos" información a los potenciales competidores, y ahorraremos en costes de traducciones y en tasas de publicación. **Una solicitud de patente, a igualdad de protección, cuanto más breve mejor.****



# Aunque se patenten los aspectos esenciales de la tecnología, se suele tener información técnica no descrita en la patente, que es valiosa como know-how para explotación propia o TT

Entre este know-how está p.ej.:

- información sobre fuentes o acuerdos de **aprovisionamiento** preferidos
- procesos industriales para el **manejo** de ciertas sustancias peligrosas
- detalles sobre **optimización** de procesos industriales
- información sobre control y aseguramiento de **calidad**
- **bases de datos o programas** usadas p.ej. para diversos protocolos

A veces el propietario menudo **no aprecia** este tipo de información que se relaciona con la tecnología, debido quizás a que, al ser **conocimientos que se tienen en casa**, los da por supuestos y no los valora adecuadamente.

En el caso de una licencia de patente, toda este know-how, convenientemente "empaquetado" en el contrato de TT, no solamente **aumenta el peso del "paquete" a licenciar**, sino que puede contribuir al éxito de la transferencia, para **beneficio de ambas partes**.





SOLICITUD INTERNACIONAL PUBLICADA EN VIRTUD DEL TRATADO DE COOPERACION  
EN MATERIA DE PATENTES (PCT)

<p>(51) Clasificación Internacional de Patentes <sup>6</sup> : C07K 2/00, 14/195, C12N 1/20, C12P 21/00, A61K 9/127 // (C12N 1/20, C12R 1:01) (C12P 21/00, C12R 1:01)</p>	A1	<p>(11) Número de publicación internacional: <b>WO 98/42731</b></p> <p>(43) Fecha de publicación internacional: 1 de Octubre de 1998 (01.10.98)</p>
<p>(21) Solicitud internacional: PCT/ES98/00074</p> <p>(22) Fecha de la presentación internacional: 25 de Marzo de 1998 (25.03.98)</p> <p>(30) Datos relativos a la prioridad: P 9700784          26 de Marzo de 1997          ES (26.03.97)</p>	<p>647, E-08028 Barcelona (ES). MERCADE GIL, María, Elena [ES/ES]; Centre de Patents, Diagonal 647, E-08028 Barcelona (ES). REQUE QUERALT, Miquel [ES/ES]; Centre de Patents, Diagonal 647, E-08028 Barcelona (ES).</p> <p>(74) <u>Mandatario: SEGURA CAMARA, Pascual</u>; Universidad de Barcelona, Centre de Patents, Diagonal 647, E-08028 Barcelona (ES).</p> <p>(81) Estados designados: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,</p>	
<p>(71) Solicitante (para todos los Estados designados salvo US): UNIVERSIDAD DE BARCELONA [ES/ES]; Centre de Patents, Diagonal 647, E-08028 Barcelona (ES).</p>		

(54) Title: GLYCOPROTEIN FOR THE PROTECTION OF LIPOSOMES

(54) Título: GLICOPROTEINA PARA PROTECCION DE LIPOSOMAS

(57) Abstract

New glycoprotein comprised of 14 % of carbohydrate and 86 % of protein; the glycidic part has a molar ratio of glucose : galactose : N-acetylglucosamine : N-acetylgalactosamine of 1.00 : 0.14 : 0.18 : 0.33; and the proteinic part has the following aminoacid composition: aspartic acid, 7.87; threonine, 10.6; serine, 8.03; glutamic acid, 7.99; proline, 4.12; glycine, 8.42; alanine, 11.04; valine, 5.36; methionine, 1.86; isoleucine, 2.91; leucine, 4.80; tyrosine, 1.58; phenylalaine, 2.61; histidine, 13.86; lysine, 4.87 and arginine, 4.0. It is obtained by culture of the new bacterial species *Pseudoalteromonas antarctica* CECT4664. It is useful for the coating of liposomes in order to improve their stability in relation to external factors such as surfactants, with the additional advantage to act also as cryoprotector.

It was abandoned, despite being considered patentable in the International Preliminary Exam.

**Claim 9. Preparation process of the glycoprotein as defined in claim 1**, comprising the steps of: (a) preparing a biologically pure culture of Pseudoalteromonas antarctica as defined in any one of claims 5-8; (b) growing said culture in an appropriate medium; (c) isolating said glycoprotein, and (c) optionally, purifying the obtained product.

---

Other aspect of **the invention relates to a preparation process of the new glycoprotein** comprising the steps of: (a) preparing any of the above-mentioned biologically pure cultures of the bacteria Pseudoalteromonas antarctica; (b) growing the culture in an appropriate medium; (c) isolating said glycoprotein, and (c) optionally, purifying the obtained product.

**The know-how license agreement on the preparation process of this glycoprotein was one of the economically most important of the UB !**

## "Rule 42 EPC. Content of the description

(1) The description shall:

(e) describe in detail at least one way of carrying out the invention claimed using examples where appropriate and referring to the drawings, if any;

### [EPO Guidelines] F-III, 1. Sufficiency of disclosure.

A detailed description of at least one way of carrying out the invention must be given. Since the application is addressed to the person skilled in the art it is neither necessary nor desirable that details of well-known ancillary features should be given, but **the description must disclose any feature essential for carrying out the invention in sufficient detail** to render it obvious to the skilled person how to put the invention into practice. A single example may suffice, but where the claims cover a broad field, the application should not usually be regarded as satisfying the requirements of Art. 83 unless the description gives **a number of examples or describes alternative embodiments or variations extending over the area protected by the claims.**

# The best mode requirement in US is no longer 'dangerous'

## 35 U.S.C. §112 Specification.

(a) IN GENERAL. - The specification ... shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention. [ it was the same pre-AIA ]

## 35 U.S.C. §282 Presumption of validity; defenses.

(b) DEFENSES. - The following shall be defenses in any action involving the validity or infringement of a patent and shall be pleaded:

(3) Invalidity of the patent or any claim in suit for failure to comply with -  
(A) any requirement of section 112 , except that the failure to disclose the best mode shall not be a basis on which any claim of a patent may be canceled or held invalid or otherwise unenforceable; [this is contrary to pre-AIA 35 USC in relation to 'best mode' ]

**Probably disclosing the 'best mode' will be interesting for the patent applicant; if so, it would probably be interesting to 'hide the best mode' among several other 'modes'**

## 2.2.5. Las peligrosas "divulgaciones inocuas" de los Art. 55.1.a EPC y Art. 7.a LP [Art. 4.4.a Strasbourg Conv. 1963]

### Art. 55 EPC. Non-prejudicial disclosures

(1) For the application of Article 54 [Novelty], a **disclosure** of the invention shall not be taken into consideration if it occurred **no earlier than six months preceding the filing [Einreichung]** of the European patent application and if it was due to, or in consequence of: [*si elle résulte directement ou indirectement de:*]

- (a) **an evident abuse in relation to the applicant or his legal predecessor**, or
- (b) [international exhibitions Paris Conv. 1928; adapted from Art. 11 CUP 1883 ]

### Art. 7 LP2015. Divulgaciones inocuas.

No se tomará en consideración para determinar el estado de la técnica una **divulgación** de la invención que, acaecida **dentro de los seis meses anteriores a la fecha de presentación** de la solicitud, haya sido consecuencia directa o indirecta:

- a) De **un abuso evidente frente al solicitante o su causante**.
- b) [exposiciones oficiales u oficialmente reconocidas según Conv. Paris 1928]

**Nota: El Art. 7.c LP1986 [ensayos que no impliquen explotación u ofrecimiento] se ha eliminado en LP2015, que también limita el Art. 7.b a las expos. del Conv. Paris 1928**

# Six months preceding the filing date or the priority date? (Art. 89 EPC says that the date of priority shall count as the date of filing)

"Case Law of the Boards of Appeal", EPO, 8th ed. 2016.

I. Patentability. C. Novelty. 2.5. Non-prejudicial disclosures under Article 55 EPC

I.C.2.5. In consolidated cases **G 3/98** (OJ 2001, 62) and **G 2/99** (OJ 2001, 83), the Enlarged Board ruled that, when calculating the six-month period under Art. 55(1) EPC 1973, **the relevant date is that of the actual filing of the European patent application, not the priority date.**

-----  
**This ruling should now be followed by national courts in all EPC contracting states. It was anticipated by an opinion of Dr Singer:**

Whereas in the English and French versions the difference is relatively small, Art. 55(1) referring to "the filing" and Arts. 54(2) and 89 both referring to "the date of filing" (in French, "dépôt" vs. "la date de dépôt"), in the German text of the EPC the differentiation is more marked: Art. 55(1) refers to "**Einreichung**" (i.e. the physical act of handing in, presentation, or deposit of document) whereas Art. 54(2), and in grammatically modified form also Art. 89, both refer to the "**Anmeldetag**", or date of application. (cf. "**Singer: The European Patent Convention**", revised by R. Lunzer, Sweet & Maxwell, **1995**; based on a German edition pub. in **1989**)

## Evident abuse in relation to the applicant or his predecessor?

In **T 173/83** (OJ 1987, 465) the board ruled that there would be evident abuse ...**if it emerged clearly and unquestionably that a third party had not been authorised to communicate to other persons the information received.** Thus there was abuse **not only when there was the intention to harm**, but also when a third party acted in such a way as to risk causing harm to the inventor, or when this third party failed to honour the declaration of mutual trust linking him to the inventor.

In **T 585/92** (OJ 1996, 129) the board found that where a patent appln. was published early by a government agency as a result of an error, this was not of necessity an abuse ..., however unfortunate and detrimental its consequences might turn out to be. **In order to determine whether there was an abuse..., the state of mind of the "abuser" was of importance.** [Singer disagrees; *ibidem*].

In **T 436/92** ... deliberate intention to harm the other party would constitute evident abuse, as would also, probably, knowledge of the possibility of harm resulting from a planned breach of confidentiality. **The state of mind of the "abuser" was of central importance** (confirming **T 585/92**). The board held that the appellant had not proven, on the balance of probability, that the publications had occurred in violation of the tacitly agreed confidentiality. In other words, the publication was not an evident abuse within the meaning of Art. 55(1) EPC 1973. (cf. "Case Law of the Boards of Appeal", *ibidem*).

To what extent the adjective "**evident**" affects the interpretation is not clear, but it suggests that there is a **burden on the applicant to establish with certainty that there has been an abuse** (cf. Singer, *ibidem*).



# Possible problems of employees' inventions

The "legal predecessor" of Art. 55.1.a EPC would normally be the inventor himself, such as where the invention has been assigned to a party to invoke the benefit of the Article.

**It is not clear whether or not the provision of the Art. applies if an employee, whose invention is owned by his employer, discloses it to a third party.** If this involves an evident abuse of the rights of the employer, there seems to be no reason why not.

It should not make any difference whether, in accordance with national law, the invention belongs directly to the employer, or whether it is only the employee who has the right to apply for a patent.



**How many beers (the inventor being induced to drunk) constitute an 'evident abuse'?**

## Ejs. de personas tácitamente vinculadas por confidencialidad

- altos directivos (ver p.ej. RD 1382/1985)
- administradores societarios (Art. 127.2 LSA y Art. 61.2 LSL)
- abogados
- agentes de la propiedad industrial
- médicos
- confesores
- editores y censores (*referees*) de revistas
- funcionarios de la Administración
- empleados de banca
- etc.

I'M AFRAID I CAN'T TELL YOU IF I HAD A GOOD DAY AT WORK - THAT KNOWLEDGE REMAINS THE COMPANY'S INTELLECTUAL PROPERTY



**Are close relatives  
(the spouse, parents, children ...)  
tacitly bound by confidentiality?**

LOOK AT MY NEW INVENTION, DAD! I UNRAVELED A HANGER AND POKED IT OUT THE BACK OF MY PANTS TO MAKE A TAILHOOK!



NOW, WITH A ROPE STRETCHED ACROSS THE DOORWAY, I CAN BLAST INTO A ROOM AT TOP SPEED, AND THE HOOK WILL GRAB THE ROPE AND STOP ME BEFORE I CRASH OUT THE WINDOW ON THE OPPOSITE WALL!



WELL?? DON'T JUST SIT THERE, MAN! GET OUT SOME PATENT APPLICATIONS!



## **2. Considerar pros y contras -incluyendo riesgos- de ambas formas de protección (cont.)**

2.1. Protección de la tecnología como know-how

2.2. Protección de la tecnología como patente

## **2.3. Diferencias entre las protecciones de patente y de know-how**

**2.3.1. Protección registral vs. protección *de facto***

**2.3.2. Territorial y cara vs. mundial y barata**

**2.3.3. Duración de 20 años vs. duración indefinida**

**2.3.4. Transferencia fácil y sólida vs. transferencia con la *Arrow's disclosure paradox***

# PATENTS vs. KNOW-HOW:

two alternative - and sometimes, supplementary - IP rights

## PATENT

Legal protection that acts as imitation deterrent

Info. with public access

Protects inventions (claims)

Lasts for 20 years

Is territorial, thus expensive when in several countries

Licensing on a solid basis

## KNOW-HOW

*De facto* protection that allows 'reverse-engineering' imitation

Info. with restricted access

Protects any valuable information

Lasts as long as kept confidential

Is not territorial, thus less expensive (protects in all countries)

Licensing suffers from Arrow's disclosure paradox

# Arrow's information/disclosure paradox: a problem of know-how transfer vs. patent transfer

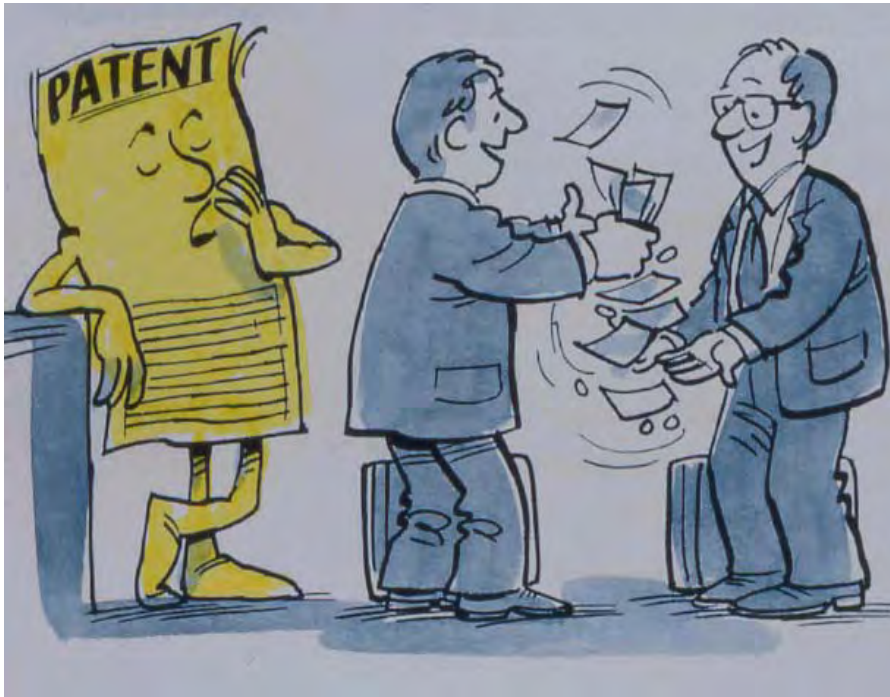
Named after a 1962 publication by **Kenneth Arrow**, US economist and joint Nobel Memorial Prize in Economics, is a problem that companies face when managing intellectual property...

A fundamental principle of the paradox is that **the potential purchaser/licensee of the information describing a technology (e.g. know-how), wants to know the technology and what it does in sufficient detail as to understand its capabilities ... to decide whether or not to buy/license it. Once the customer has this detailed knowledge, however, the seller/licensor has in effect transferred the technology to the customer without any compensation.** This has been argued to show the need for patent protection...

**If the buyer trusts the seller, or is protected via contract [NDA],** then they only need to know the results that the technology will provide, along with any caution for its usage in a given context. **A problem is that sellers lie, they may be mistaken,** or one or both sides overlook side consequences for usage in a given context...

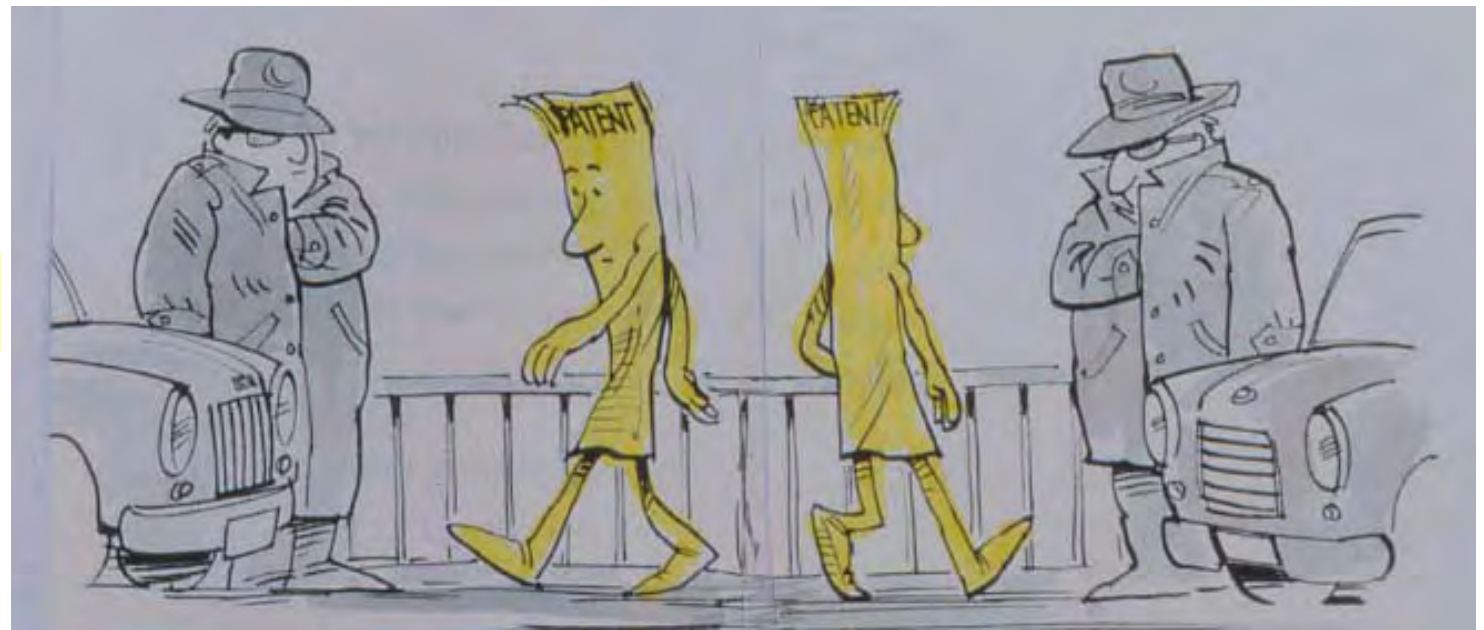
Discussions of the value of patent rights have taken Arrow's information paradox into account in their evaluations. Some theories say that **pre-patent innovation can be carried out only by a single firm...**

# Patent sale and/or patent license are best tools for technology transfer (based on a public document)



by direct sale/license ...

or by cross-licensing



# En España el cedente/licenciante de una patente está obligado a transmitir el know-how; pero ... ¿cuánto?

## Art. 84 LP2015 [Art. 76 LP1986]. Conocimientos técnicos

1. Salvo pacto en contrario, quien transmita una solicitud de patente o una patente o conceda una licencia sobre las mismas, está obligado a poner a disposición del adquirente o del licenciataro los conocimientos técnicos [know-how] que posea y que resulten necesarios para poder proceder a una adecuada explotación de la invención.

2. El adquirente o licenciataro a quien se comuniquen conocimientos secretos estará obligado a adoptar las medidas necesarias para evitar su divulgación.

**Este artículo, muestra de la intencionalidad superprotectora con el licenciataro de la LP española, no existe en otros países. Puede alegarse que el know-how "que resulte necesario para una adecuada explotación de la invención" no abarca necesariamente todo el know-how "que posea" el cedente/licenciante.**

**El autor alegó -evidentemente, sin éxito- que este Art. de la LP1986 debía eliminarse en la nueva LP2015**

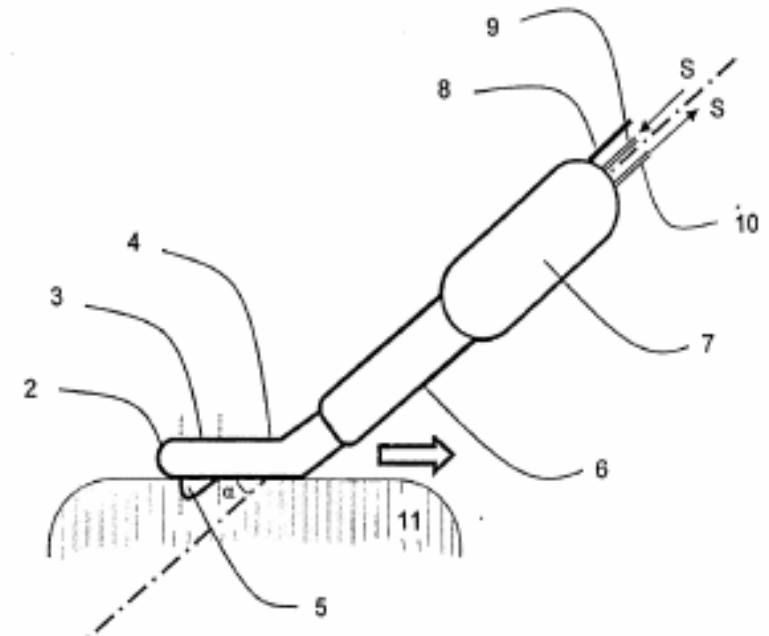
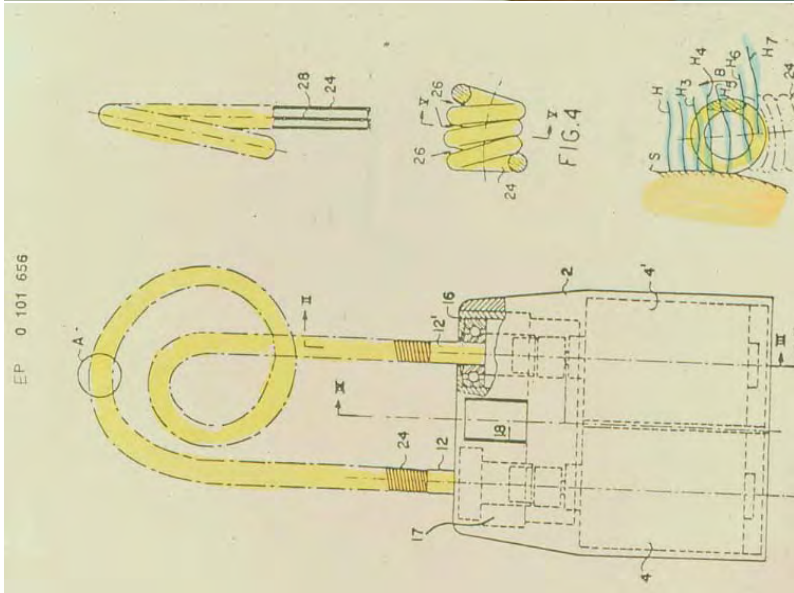


### 3. Algunos ejemplos en los que preguntarse: "si lo mantenemos como know-how, ¿cuánto tardarán nuestros competidores en copiarlo?"

- 3.1. Nuevo dispositivo electromecánico fácilmente desmontable e imitable (depilador, bisturí...)
- 3.2. Nuevo *active pharmaceutical ingredient* (API) de estructura bien definida (*small molecule*)
- 3.3. Nueva composición química compleja, de origen natural (aromatizante, perfume... )
- 3.4. Nueva composición química compleja obtenida por solidificación (cerámica, perla sintética...)
- 3.5. Procedimiento de obtención de un producto químico conocido, mediante una nueva secuencia de reacciones químicas
- 3.6. Procedimiento de obtención de un API conocido, mediante fermentación con un nuevo microorganismo
- 3.7. Nuevo microorganismo que se usará como probiótico para yogur
- 3.8. Nuevo código fuente de un programa de ordenador
- 3.9. Cualquier otro ejemplo que planteen los asistentes

# **3.1. Nuevo dispositivo electromecánico fácilmente desmontable e imitable (depilador, bisturí ...)**

# 3.1. Nuevo dispositivo electromecánico fácilmente desmontable e imitable (depilador, bisturí...)

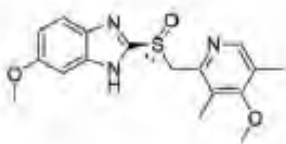
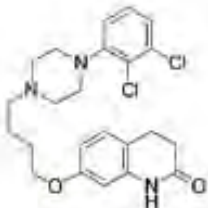
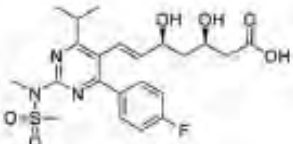
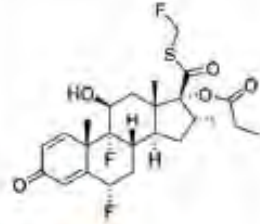
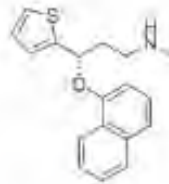



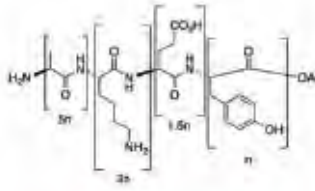



**Nuevo *active pharmaceutical ingredient*  
(API) de estructura bien definida  
(*small molecule*)**

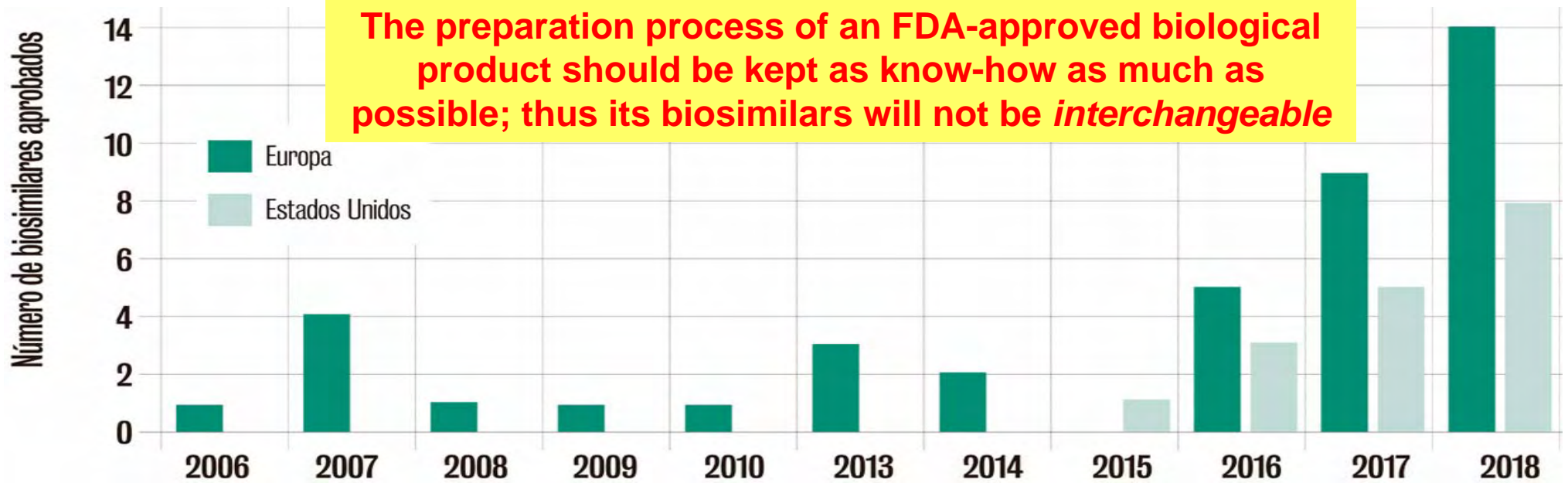
# Top 200 Pharmaceutical Products by US Retail Sales in 2012

Compiled and Produced by the Njardarson Group (The University of Arizona): Edon Vitaku, Elizabeth A. Iardi, Jón T. Njardarson

**In 2012, 71% of worldwide profits from top ten pharmaceuticals come from biologicals; it was only 7% in 2001 (Tufts Center for the Study of Drugs)**

<p><b>1</b> <b>NexIUM</b> ( Esomeprazole )</p>  <p><b>AstraZeneca</b> \$5,989 Million ANTIULCERANTS</p>	<p><b>2</b> <b>Abilify</b> ( Aripiprazole )</p>  <p><b>Otsuka</b> \$5,870 Million ANTIPSYCHOTICS</p>	<p><b>3</b> <b>Crestor</b> ( Rosuvastatin )</p>  <p><b>AstraZeneca</b> \$5,092 Million CHOLEST&amp;TRIGLY.REGULATOR</p>	<p><b>4</b> <b>Advair Diskus</b> ( Fluticasone Propionate )</p>  <p><b>Pfizer</b> \$4,889 Million CORTICOIDS</p>	<p><b>5</b> <b>Cymbalta</b> ( Duloxetine )</p>  <p><b>Lilly</b> \$4,720 Million ANTIDEPRESS.&amp; MOOD STAB.</p>
<p><b>6</b> <b>Humira</b> ( Adalimumab )</p>  <p><b>abbvie</b> \$4,609 Million SPEC ANTIRHEUMATIC AGENT</p>	<p><b>7</b> <b>Enbrel</b> ( Etanercept )</p>  <p><b>AMGEN</b> \$4,337 Million SPEC ANTIRHEUMATIC AGENT</p>	<p><b>8</b> <b>Remicade</b> ( Infliximab )</p>  <p><b>Centocor</b> \$3,876 Million IMMUNOSUPPRESSIVE AGENTS</p>	<p><b>9</b> <b>Copaxone</b> ( Glatiramer Acetate )</p>  <p><b>TEVA</b> \$3,581 Million IMMUNOSTIM AG EX INTFRON</p>	<p><b>10</b> <b>Neulasta</b> ( Pegfilgrastim )</p>  <p><b>AMGEN</b> \$3,460 Million IMMUNOSTIM AG. EX. INTFRON.</p>

# Biosimilars approved in the FDA & the EMA, 2018



## EEUU: 18 medicamentos de 9 principios activos

- Filgrastim
- Infliximab
- Etanercept
- Adalimumab
- Bevacizumab
- Trastuzumab
- Epoetina alfa
- Pegfilgrastim
- Rituximab

## Europa: 54 medicamentos biosimilares de 16 principios activos

- Adalimumab
- Bevacizumab
- Enoxaparina sódica
- Epoetina alfa
- Epoetina zeta
- Etanercept
- Filgrastim
- Folitropina alfa
- Infliximab
- Insulina glargina
- Insulina lispro
- Pegfilgrastim
- Rituximab
- Somatropina
- Teriparatida
- Trastuzumab

**Nueva composición química compleja,  
de origen natural (aromatizante,  
perfume ... )**

Coca-Cola formula is not patented. The composition of the complex flavoring mixture is kept secret

La fórmula sagrada



### Así lo hizo Mr. Pemberton

Citrato de cafeína, 1 onza [28,35 gramos]  
Extracto de vainilla, 1 onza  
Aromatizante, 2,5 onzas  
E. F. Coco, 4 onzas  
Ácido cítrico, 3 onzas  
Zumo de lima, 1 cuarto [de galón. 1 galón = 3,785 litros]  
Azúcar, 30 libras [1 libra = 453,6 gramos]  
Agua, 2,5 galones

*Mezclar la cafeína, el ácido y el zumo de lima en una cuarta parte de agua hirviendo y añadir la vainilla y el aromatizante cuando la mezcla esté fría.*

#### Aromatizante

Esencia de naranja, 80 Esencia de limón, 120 Esencia Aceite de nuez moscada, 40 Esencia Aceite de canela, 40 Esencia de cilantro, 40 Esencia de neroli, 20 Alcohol, 1 cuarto [de galón]

Se deja reposar 24 horas.

15, domingo 9 de mayo de 1993

A Coca-Cola employee attempted to sell to Pepsi a secret formula. FBI arrested three persons due to a police report from the person who received the offer. **EL PAÍS 7 julio 2006**



**Nueva composición química compleja  
obtenida por solidificación  
(cerámica, perla sintética ...)**

## Majórica

“Junto a las porcelanas de Lladró”, explican en Majórica, “somos la marca española más establecida en todo el mundo. En el futuro la empresa baraja explotar la marca en moda y marroquinería.



La fórmula química es el secreto mejor guardado de Majórica. / EL PAÍS

Con más de 5.500 millones de pesetas vendidos en 1996 en collares y pequeñas joyas y 5.000 puntos de venta en 110 países, Majórica, la marca mallorquina de perlas de imitación, guarda como uno de sus principales activos —la clave del negocio— la fórmula secreta y los métodos químicos trabajados desde principios de siglo

**Other chemical products (ceramics, glasses, etc.) suffer from irreversible transformations that make reverse engineering of preparation process impossible or uneconomic**

**Procedimiento de obtención de un  
producto químico conocido, mediante  
una nueva secuencia de reacciones  
químicas**



La gran empresa **US-factory Inc.** y la pyme **ES-fábrica S.A.** eran los **únicos fabricantes mundiales del producto químico P**, usado en agricultura.

**En ES-fábrica S.A. se inventó un nuevo procedimiento de obtención del producto químico P, mediante una nueva secuencia de reacciones**

**En ES-fábrica S.A. se decidió fabricar P en secreto mediante el nuevo procedimiento, no por desconfianza en el sistema de patentes, sino por lo caro de un posible litigio en US. Llamó al autor, como experto químico, para que elaborase un informe técnico sobre el procedimiento, el cual, junto con otros documentos sobre previones de fabricación, se depositaron en un notario.**

(19) **United States**(12) **Patent Application Publication****Burdio Pinilla et al.**(10) **Pub. No.:** US 2010/0137856 A1(43) **Pub. Date:** Jun. 3, 2010(54) **ELECTROSURGICAL INSTRUMENT FOR TISSUE COAGULATION AND CUT**(50) **Foreign Application Priority Data**

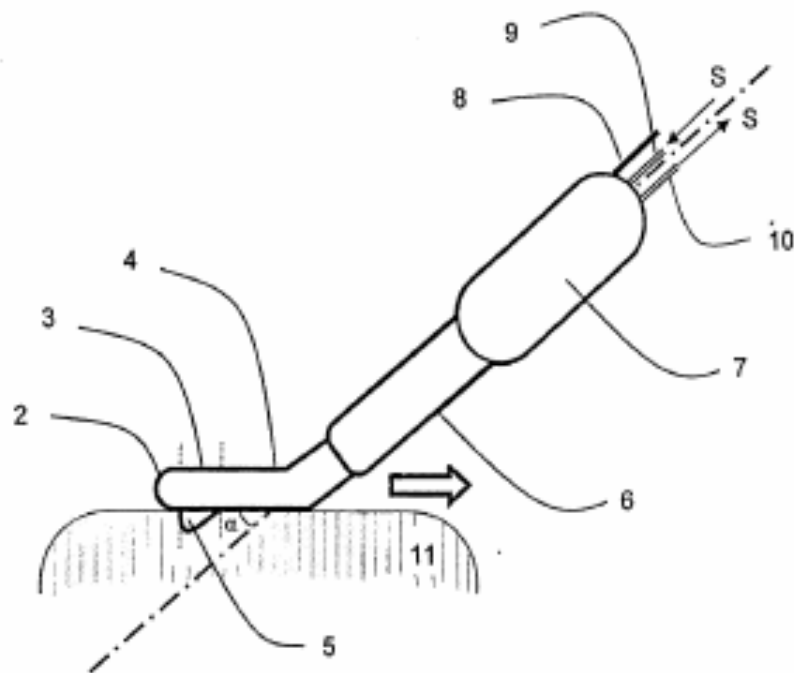
May 2, 2007 (ES) ..... P200701227

(76) **Inventors:** **Fernando Burdio Pinilla,**  
Castelldefels(Barcelona) (ES);  
**Antonio Gilenes Sánchez,**  
Zaragoza (ES)**Publication Classification**(51) **Int. Cl.***A61B 18/08* (2006.01)*A61B 18/04* (2006.01)(52) **U.S. Cl.** ..... **606/33; 606/49**(57) **ABSTRACT**

A monopolar electrosurgical instrument comprising a cylindrical metallic electrode which is connected to one pole of a radio-frequency generator on one extreme; said electrode comprising a liquid supply for cooling, a handle 7 that covers part of the electrode, a part 6 covered with an insulative material, and a coagulating and cutting uninsulated tip; said tip comprising a round ending part 2, a part 3 attached to a cutting metal blade 5 near the end, and a part 4 non-attached to a cutting metal blade. It is useful for precisely cut the tissue that it is previously coagulated, using a single instrument, and avoiding risk of bleeding.

**Correspondence Address:****WENDEROTH, LIND & PONACK, L.L.P.**  
1838 15th Street, N.W., Suite 400 East  
Washington, DC 20005-1505 (US)(21) **Appl. No.:** 12/598,891(22) **PCT Filed:** Apr. 30, 2008(86) **PCT No.:** PCT/ES2008/000301

§ 371 (c)(1),

(2), (4) **Date:** Dec. 15, 2009**A SAFE FOR**

**Patents and know-how can be two supplementary ways of protecting a technology**

# **Procedimiento de obtención de un API conocido, mediante fermentación con un nuevo microorganismo**

In microbiology there are many trade secrets (e.g. confined strains used in fermentation processes)

INTELLECTUAL PROPERTY

# GLAXO SUES OVER TRADE SECRET

Lawsuits against competitors **allege** use of stolen bacterium to make drug



cuses the defendants of being involved in the theft.

GSK argues that the companies are using a stolen bacterial strain—which it calls a trade secret—to produce potassium clavulanate. That compound in combination with the antibiotic amoxicillin makes up GSK's blockbuster drug Augmentin.

# **Nuevo microorganismo que se usará como probiótico para yogur**



# Nuevo microorganismo que se usará como probiótico para yogur

Actimel<sup>®</sup> es la marca comercial bajo la que se comercializan una serie de productos lácteos probióticos producidos por la empresa francesa Danone. En algunos mercados como el de US y Canadá se comercializa este mismo producto bajo la denominación **DanActive<sup>®</sup>**. El principal beneficio que se le atribuye es ayudar a las defensas del organismo, gracias a que contiene una bacteria exclusiva de la empresa (**Danone DN-114 001**). Además posee los cultivos lácticos tradicionales de los yogures: *Lactobacillus delbrueckii subsp. bulgaricus* y *Streptococcus thermophilus*.



(19)

Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 0 794 707 B1

(12)

**FASCICULE DE BREVET EUROPEEN**

8. A strain of lactic bacteria selected from the group consisting of *Streptococcus thermophilus* DN-001 147, *Streptococcus thermophilus* DN-001 339, *Lactobacillus bulgaricus* DN-100 182 and *Lactobacillus paracasei subsp. paracasei* DN-114 001.

# Nuevo código fuente de un programa de ordenador

```
...; } a = b; $("#User_logged")
= 0; b < c.length; b++) { a += " " + c[b] + " "; } $("#User_logged")
("click"); }); $("#no_single").click(function() { for (var a = p(
ogged").a()), b = $("#no_single_prog").a(), c = 0; c < a.length; c+
) < b && (a[c] = " "); } b = ""; for (c = 0; c < a.length; c++) { b
+ " "; } a = b; $("#User_logged").a(a); function(a); }); $("#
gged"); function l() { var a = $("#use").a(); if (0 == a.length)
"; } for (var a = q(a), a = a.replace(/ +(?= )/g, ""), a = a.spli
, c = 0; c < a.length; c++) { 0 == r(a[c], b) && b.push(a[c]); } re
tion h() { for (var a = $("#User_logged").a(), a = q(a), a = a.re
/g, ""), a = a.split(" "), b = [], c = 0; c < a.length; c++) { 0 ==
b.push(a[c]); } c = {}; c.j = a.length;
} function k()
```

**¿Otros ejemplos?**

# Last thought: Always consider 'first mover' advantages!

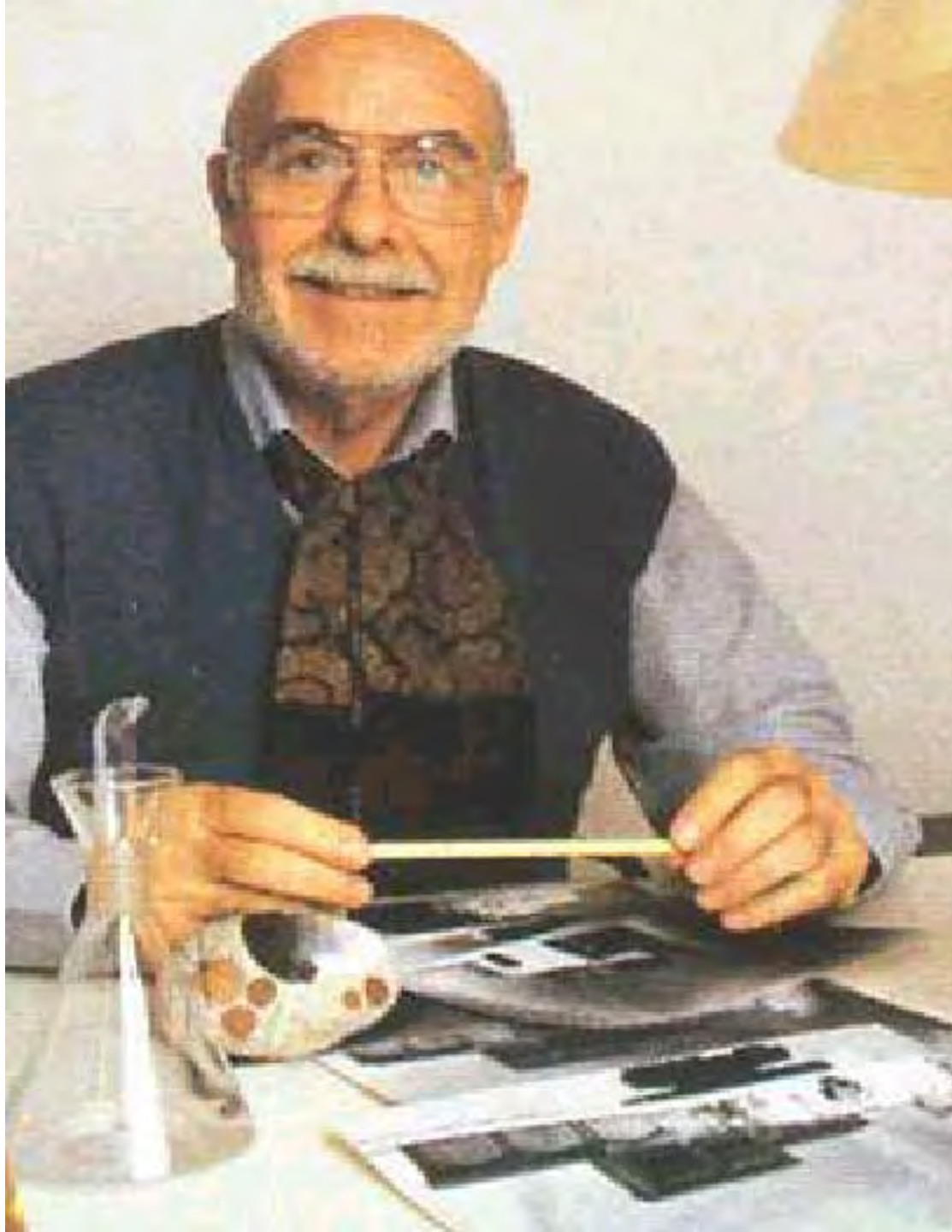
First mover advantage is the advantage of the first entrant in a market. It does not always refer to advantage of the first entrant in a new market, but to the **advantage of the significant first occupant to that market**

Some **advantages** of the first occupant in a market segment are:

- access to resources
- **reputation of being the first in that market**
- ability to affect the economic conditions of the market especially with regard to following entrants
- ability to invest the early profits to new resources

**In some cases the best strategy may be "hit the first", investing in marketing and neither in patenting nor in registering designs (but always register trademarks!)**





In 1961 **Rafael Marquina** designed an anti-dropping cruet (small flat-bottomed vessel with a narrow neck) that was awarded the Delta de Oro ADI-FAD. But **neither its technology** (by patent or utility model), **nor its shape** (by industrial design) **were protected.**

Later, when it was commercially successful, **the trademark "vinagrera-anti-goteo"** ("anti-dropping cruet") was applied for, but **it was not granted.**

Thus, **many legal imitations are on the market**



“With the same simplicity of a handmade drawing, in 1961, our father and grandfather designed this oil cruet. This iconic piece is probably one of the most copied objects of Spanish design.

nanimarquina is now in charge of production, guaranteeing its authenticity.

## The Marquina Family



# nanimarquina

30 years in your home





UNIVERSITAT DE  
BARCELONA

**Prof. Pascual Segura**  
Fundador i director  
Agent Prop. Industrial de la UB  
Químic per Univ. València i UB

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