



WEBINAR: "INTELLECTUAL PROPERTY: PROTECTING INNOVATIONS FOR THE FUTURE"

- What is intellectual property?
- Definition and types of IP
- The importance of protecting IP
- The risk of disclosure without protection
- How to protect your IP: patents, confidentiality agreements, trademarks, know-how, trade secrets
- IP and the future: Funds, partnerships and start-ups



Speaker: Laura Artigas
European patent agent **ZBM** PATENTS & TRADEMARKS

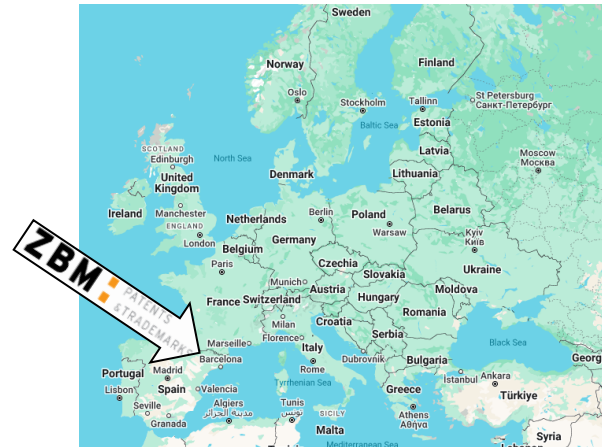


Your speaker today



Laura Artigas
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- MSc in Telecommunications Engineering & European Patent Attorney & European Patent Litigator
- Partner at ZBM Patents & Trademarks



Why Intellectual Property?

NATIONAL BUREAU OF ECONOMIC RESEARCH, 2023 The adoption of new technologies in healthcare will result in billion \$ savings per year.

https://www.nber.org/system/files/working_papers/w30857/w30857.pdf

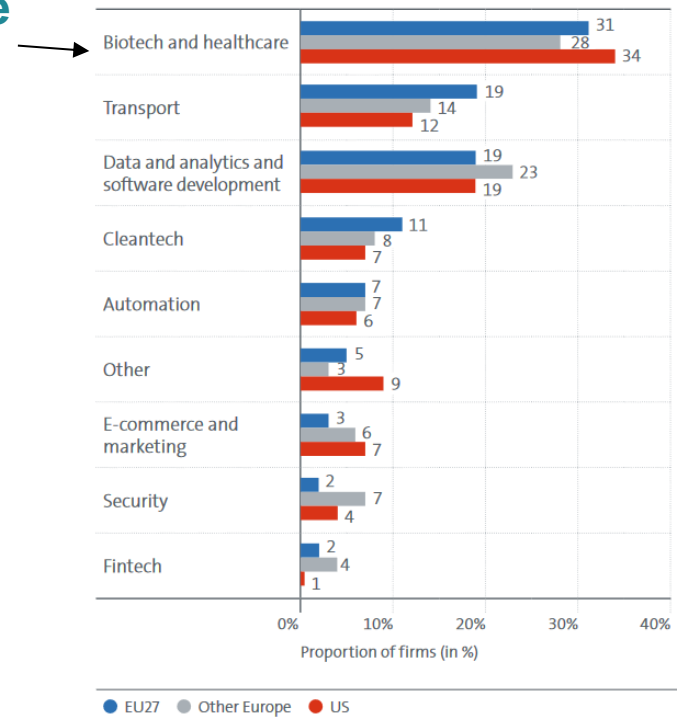
**Most of technological start ups:
Biotech & Healthcare**



Figure 3.2

4IR innovation profile of European SMEs

Focus of deployment efforts



Content



What is intellectual property? Definition and types of IP

How to protect your IP

The risk of disclosing without protection

IP and the future: Funds, partnerships and start-ups.

Q&A

What is intellectual property? Definition

- Creations of the mind: inventions, literary and artistic works, designs, and symbols, names and images used in commerce
- IP is protected in law: patents, copyright, trademarks, trade secret
- Recognition, financial benefit
- The IP system aims to foster an environment in which creativity and innovation can flourish

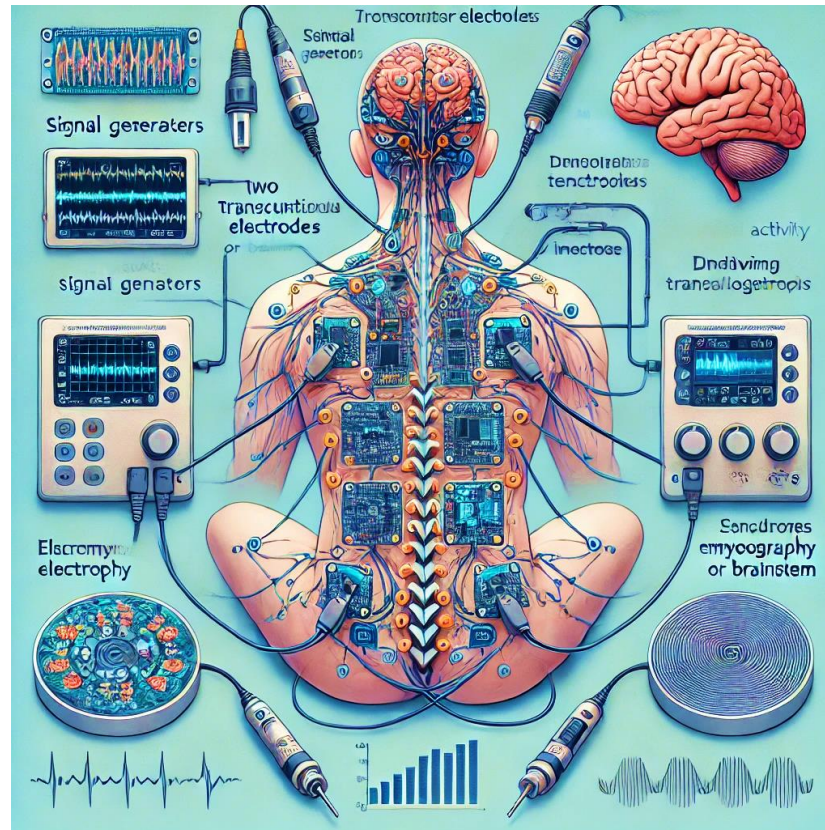
Same objective as publications in reputable scientific journals?

What is intellectual property? Types of IP

- Copyright (source code) and related rights
- Trademarks
- Industrial designs
- Trade secrets
- Patents and utility models

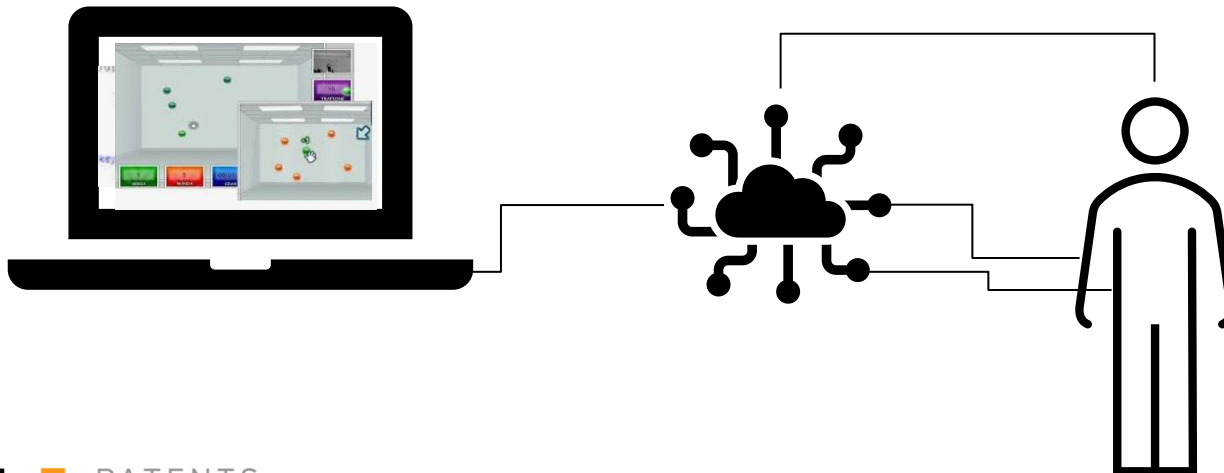


Types of IP



Copyright · Trademarks · Industrial designs · Trade secrets · Patents

- A right provided to the author of an original work (**source code**, book, art, photo, drawing...) to **prohibit** others from copying or selling the original work
- Copyright protects the **EXPRESION** of an idea
- Copyright **DOES NOT** protect the idea
- Automatically generated upon creation
- Belongs to the author and lasts **70 years** from the death of the author



Copyright · **Trademarks** · Industrial designs · Trade secrets · Patents

- Trademarks are used to **identify** the source of goods or services
- Recognizable **sign, word, design or expression** (color, sound, 3D shape)
- Normally register, for a “class” of products/services
- Distinctive character
- **Indefinitely** if renewed



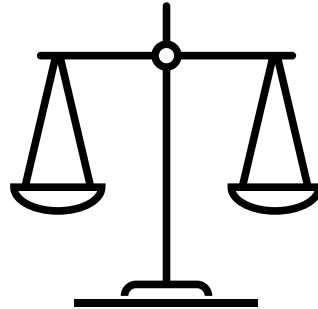
- Industrial Designs are used to protect the ornamental and **non-functional** features (shape, form, color, combination) of a product
- **Novel** & “individual character”
- Register at IP office
- Maximum of **25 years** of protection, renew every 5 years



- Information **not known** by others
- **Economic value** derived from not being public
- **Do not** register
- Reasonable measures are taken **to protect the Information**
 - Key persons
 - Non-disclosure agreements
 - Non-compete agreements
- Examples:
 - Formula Coca-Cola
 - Specific synchronization patterns between signals
 - ...



Protect an “invention”:
solution to a technical
problem



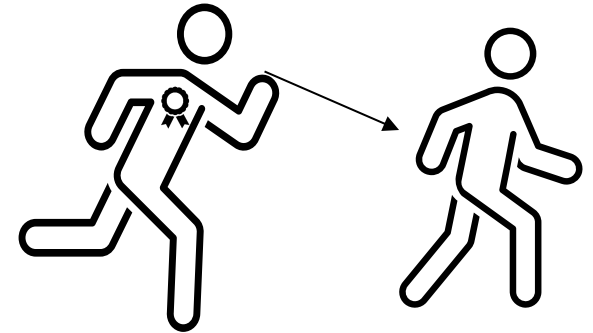
In exchange for the full
disclosure of the invention

- We can combine Patent with secret and keep an advantageous solution that is difficult for the competition to discover
- Patents can protect a physical entity (product, machine) or activity (method or use)
 - Neurorehabilitation device
 - Computer-implemented method to assist in rehabilitation process
 - Method for controlling EMG, EGG and actuator
 - ...

Patent Rights

Patents can only be used as a sword, not as a shield

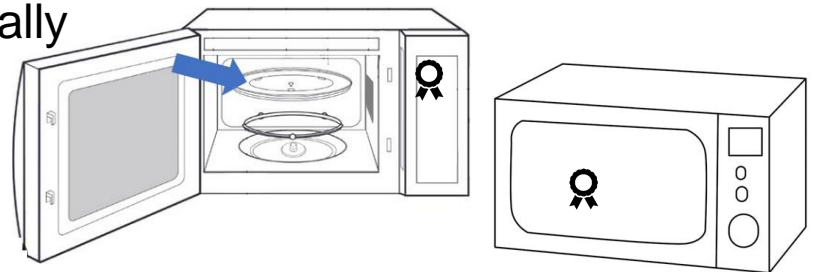
- Right to **prohibit others from exploiting (sell, offer for sale, use, produce, import) the invention** in countries protected by a patent



- Patents are “**territorial**”: Effect in countries where they are applied for and granted (France, Italy, US, EP prosecution=> UP and individual validations)

- It does NOT give the right to commercially exploit the invention:

- Infringement of previous patents?



Patent system

- Protection for an invention for **20 years in a limited number of countries**



- **Foster** innovation



- **Career** Benefits and Academic Growth



Patentability requirements



- Invention
- Novelty
- Inventive Step (non-obviousness)
- Industrial applicability

Patentability: Novelty

- An invention is **new** if it does not form part of the state of the art
- State of the art is **ANYTHING** made available to the public in ANY possible form before filing date of invention
- **Own scientific publications, posters, conference submissions**
- Japan and US **grace period**, but NOT in Europe! Few exceptions for exhibitions
- So, do **NOT** create your own prior art

Patentability: Inventive Step

- How obvious is it to arrive to the solution in view of the available prior art?

Patentability: Novelty and Inventive Step Example

Hand rehabilitation device

speaker or headphones

synchronize musical frequency
pattern to rehabilitation
exercises



Which inventions do we patent?

- Inventions that have **not been disclosed** (or limit to US and very few other territories)
- Inventions that serve **a strategic purpose** (alignment with business or research program)
- Inventions that give us a **competitive advantage**
- Inventions that we can **broadly** protect
- **Reverse engineering** of your products!

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The path to patents



Drafting

Filing



Publication

Patent Office
Prior Art Search



TTO



Patent
Attorneys



Examination

Grant
(or refusal)

Opposition
Appeal
Litigation

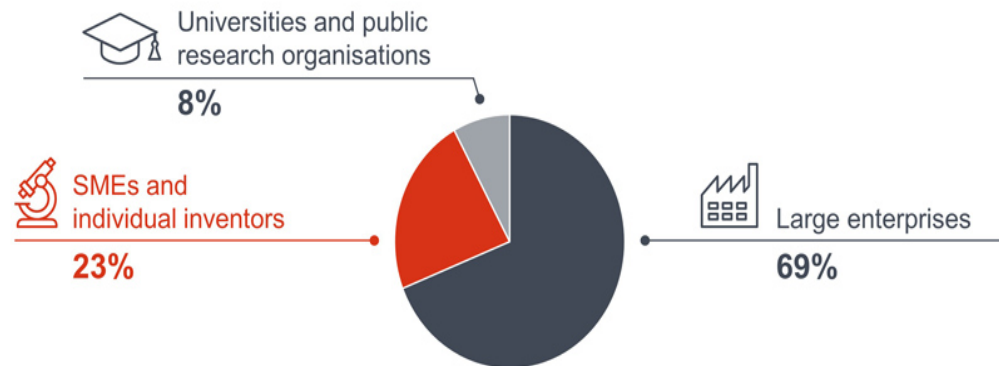
For researchers?



Copyright, Design, Trademark, Secrets...

The path to patents

- Patents are **not only** for large companies
- 31% of applications filed at the EPO come from **SME's and universities**



https://www.epo.org/sites/default/files/2024-03/SMEs%20Applications%202023_900x450px.jpg

- Startups with patents and trademarks are **10 times more successful** in securing funding

<https://www.epo.org/en/news-events/press-centre/press-release/2023/945253>

The path to funding



Confidentiality agreements

Fund rising



Publication

Angel investors
Personal Investors



TTO



Lawyers



Licence agreements

Private equity

Patents
Know-how

Venture Capital

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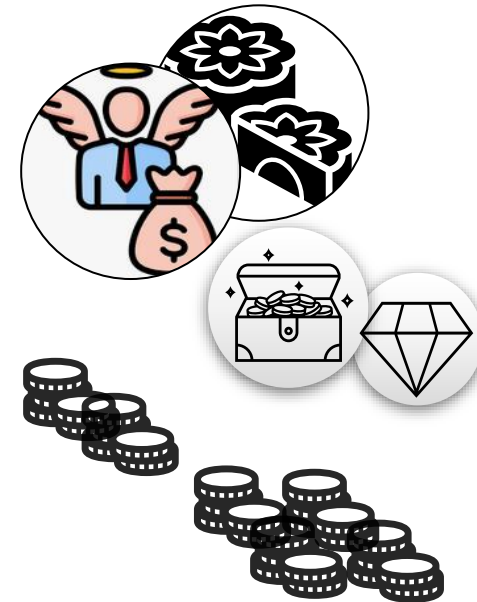
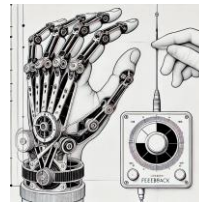
IP and the future: Funds, partnerships and start-ups.

Q&A

Risk of disclosing without protection



Not new or not inventive
Patent not granted



Protect your ideas before publishing (Scientific articles, posters, conferences, pitches...)

Successful case

- 1999: Fractus filed **two patent applications** for a new fractal-based antennae for use in e.g. smartphones or tables
- 2009: Fractus decided to **sue** 10 companies for patent infringement (**Samsung, LG, HTC, Sharp**...) and settle a **licence agreement** with other companies as **Motorola**
- 2010: 9 of **agreements**
- 2014: An back-due
- 2015: Lic
- 2017: Fra company



“Looking back, adopting a sophisticated IP strategy early on, when Fractus was still a start-up with limited resources, was the most important strategic decision we made”

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IP and the future: Patents

- **Avoid disclosures** before filing a patent application
- Do **not underestimate** your ideas
- Invest in **contacting** an experienced European patent attorney
- A patent attorney will **stretch your invention** to its limits
 - Broad vs Narrow claims
 - Sufficiency of disclosure vs excessive details
 - Clear and unambiguous terms
- Country coverage

IP and the future: Tech Transfer

- Patents are a **financial asset**: Mortgage, collateral for loans
 - Patents are assets that can **attract investors**: invest in the future of your startup
 - **Pack patent + know how: Patents** generally help the tech transfer and obtain funding and investments while **Know how** generally helps to increase the territorial scope and the duration of the agreement
 - **Upfronts** vs. **royalties**
- **Integrate** IP Management & Strategy in your Business Strategy
 - Patents provide a **negative right**: “only” prevent others from commercializing your invention
 - **Due diligence** is generally performed to analyze the IP & Tech strategy by possible investors
 - Ensure **inventor rights** have been correctly transferred
 - Do not forget to **avoid infringing** 3rd party rights!

Conclusions

Researchers and innovators in the health tech space: Remember

- protecting IP is essential for your career, your research, and the future commercialization of your innovations
- protecting your IP before publication
- reach out to your Tech Transfer office or seek professional legal advice
- ensure that your innovations are protected.

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Thanks!!