

Intellectual property
rights
of the research result

Subjects of IPs

- **Intellectual property (IP)** is a category of property that includes intangible creations of the human intellect.
- Research results are in the form of inventions, scholarly publications, databases, confidential information, computer programs, etc.
- Teaching activities also generate IP, such as print publications, theses, software, films, sound recordings, computer presentations and multimedia works: these are generally protected by copyright.

Owner of the rights: depends on ...

- the type of creator/inventor (employee, student, visiting researcher, outside collaborator);
- the nature of the work (invention, copyright work, confidential technical data, design, etc.);
- the creator/inventor's use of resources or funds of the institution and/or sponsors; and
- the circumstances of creation (whether work is created by an individual or as part of a collaborative effort).

Regulations

- the applicable national IP law,
- the IP policies of the university and
- the individual contractual agreements among the university, creators and sponsors

IP protection

- guards ownership and use rights for concepts and ideas
- through mechanisms such as patents, trademarks, copyrights, trade secrets, and know-how agreements
 - patents preserve monopoly-like rights for the technology for specified periods of time.
 - trade secrets, represent information that is withheld from the public by the developer or owner to provide an entity within an industry sector with a technical advantage over rivals.

Main forms of IP protection

1. Patents
2. Trademarks
3. Trade secrets
4. Copyrights



Patent

- A patent grants property rights on an invention, allowing the patent holder to exclude others from making, selling, or using the invention
- Duration of protection: at least 15 years
- Types:
 - Utility patent: most common type, covering any process, machine, article of manufacture, or composition of matter, or any new and useful improvements thereof
 - Design patent: covers any new, original, and ornamental design for an article of manufacture
 - Plant patent: covers any new variety of asexually produced plant

Trademarks & Trade secrets

- A trademark is a word, phrase, symbol, or design that distinguishes the source of products (trademarks) or services (service marks) of one business from its competitors. In order to qualify for patent protection, the mark must be distinctive.
- A trade secret is a formula, process, device, or other business information that companies keep private to give them a business advantage over their competitors. Examples:
 - Soda formulas
 - Customer lists
 - Survey results
 - Computer algorithms

Copyrights

- Protect original works of authorship, such as literary works, music, dramatic works, pantomimes and choreographic works, sculptural, pictorial, and graphic works, sound recordings, artistic works, architectural works, and computer software.
- With copyright protection, the holder has the exclusive rights to modify, distribute, perform, create, display, and copy the work.
- A copyright exists from the moment the work gets created, so registration is voluntary.
- Usually, the duration of protection is that of the owner life plus 70 years

Other forms

- **Domain name** is similar to a trademark name
- **Database right** prevents copying of substantial parts of a database. The protection is not over the form of expression of information but of the information itself, but in many other aspects database right is similar to copyright.
- **Geographical indications** identify a good as having a certain quality, reputation or other characteristic attributed to its location of origin. Geographic indications are treated as a subset of trademarks used to prevent consumer confusion.
- **Industrial design rights** protects the visual design of objects that are not purely utilitarian
- **Trade dress** refers to characteristics of the visual and aesthetic appearance of a product or its packaging (or even the design of a building) that signify the source of the product to consumers

Know how

- Know-how is undocumented information known only to you.
- It is similar to trade secrets.
- Without your know-how, others may find it difficult or unrewarding to exploit your idea.
- For example, you may know how to reduce production costs significantly by using conventional equipment in an unconventional way.
- Know-how can be commercially valuable, and can be included in licensing agreements.
- There is also no way of registering it and its theft - usually by employees or associates - can be hard to establish.

Violation of IPRs: Infringement & misappropriation

- "infringement" with respect to patents, copyright, and trademarks,
 - Patent infringement typically is caused by using or selling a patented invention without permission from the patent holder
 - Copyright infringement is reproducing, distributing, displaying or performing a work, or to make derivative works, without permission from the copyright holder (typically a publisher or other business representing or assigned by the work's creator); often called "piracy"
 - Trademark infringement occurs when one party uses a trademark that is identical or confusingly similar to a trademark owned by another party
- "misappropriation" with respect to trade secrets

Comparison

		Protects	Infringement	Registration Process	Term	Comparative Costs
Patent	Utility Patent	Functional Aspects	Make, Use, Offer, Sale, Import	Yes	20 years upon filing	Expensive
	Design Patent	Ornamental Features	Make, Use, Offer, Sale, Import	Yes	15 years upon filing	Moderate
Trademarks		Brands	Used in commerce	Optional	Potentially indefinite, limited by use	Inexpensive
Copyrights		Works of Authorship	Copying, etc.	Optional	Life Plus 70 Years	Inexpensive
Trade Secrets		Information	Misappropriation	No	Potentially indefinite, limited by secrecy	Depends

Ownership schemes: 1 - Research privilege

- Researchers have full rights to the IP they created.
- Allows them, and not the institution, to decide whether or not to patent and how to further develop their discoveries, even if the underlying research was supported by public funds.
- Usually the university has some form of license to use the IP.
- In some cases, if the institution provides substantial support to the inventor for technology transfer, the benefits may be shared with the institution
- Applied in Italy and Sweden

Ownership schemes: 2 – Institutional ownership

- The IP rights or results of publicly-funded research are owned by the institution where the researcher works
- With exceptions, for example, for inventions made by researchers in their own time using their own equipment, or for inventions developed within the framework of a collaborative or sponsored research agreement.
- The institution is usually given responsibility for the protection and further development of the inventions.
- In recent years there has been a clear trend toward institutional ownership.
- Countries that currently apply this principle include Brazil, China, Denmark, Germany, Japan, Norway, Romania, Singapore, Spain, Thailand, UK, USA, etc.

Two primary systems of institutional ownership

1. Pre-emption rights:

- first owner: the employee/researcher; the institution is entitled to claim the invention, most usually within a specified period of time. For example, in Austria & Czech Republic.
- In most of these pre-emption rights systems, the institution must pay some form of remuneration to the employee inventor as compensation for transferring the right to patent the invention to the institution. Examples: Hungary & Lithuania.

2. Automatic ownership:

- The institution is automatically the first owner of the IP rights.
- Subject to certain conditions and rights of inventors, for example, the right to remuneration and moral rights to the inventions.
- Examples: Denmark, Finland, Germany, USA.