

KNOWLEDGE TRANSFER AND ITS PROCESS

CHECKLIST FOR THE RESEARCHER



of the knowledge transfer

for the researcher

Request the help of an advisor of your Knowledge Transfer Office (KTO)



This work is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License](#) except the illustrations.

In response to a request from researchers, the LiEU Network has developed an interactive guide enabling any researcher, new or experienced, to have an overall view of the process leading to knowledge transfer and to have concise summarised information at each step.

By making the process of research promotion more transparent and accessible, the LiEU Network hopes to see more initiatives among universities and Higher Education Institutions (HEI) leading to knowledge transfer within civil society.

¹ via the Knowledge Transfer Offices (KTOs) of the universities of the Fédération Wallonie-Bruxelles (UCLouvain, ULB, ULiège, UMONS, UNamur, USL-B) and in collaboration with SynHERA.



TABLE OF CONTENTS → list of explanatory sheets available (accessible at the top right of each page)



THE MAIN PAGE → a diagram showing the main steps of the transfer and pointing to explanatory sheets (accessible at the top right of each page)



Click and access a potentially useful focus area throughout your search



Click and access an explanatory sheet



Some forms are not yet clickable - information is being created



Get HELP



CONTACT an advisor from your KTO

The information in this guide is necessarily summarized and not exhaustive. Also, do not hesitate to **contact us** to find out more. Finally, this guide only makes sense if it is really useful to you: all your suggestions for improvements are therefore welcome!

Have fun surfing and reading!

USER GUIDE

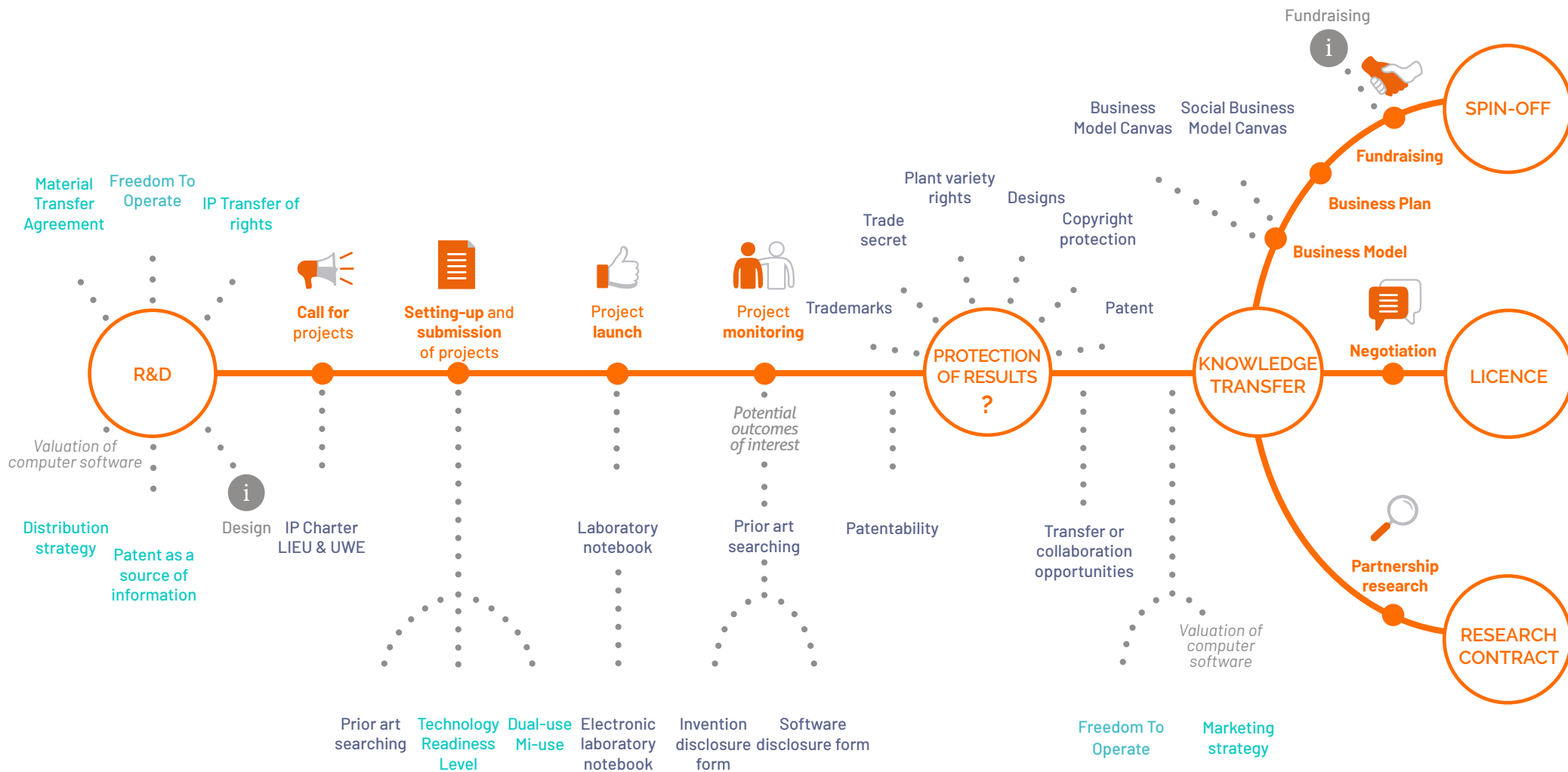
- Material Transfer Agreement
- Freedom To Operate
- IP Transfer of rights
- Computer software: Distribution strategy
- Patent as a source of information
- IP Charter of the LiEU Network and the UWE
- Prior art searching
- Technology Readiness Level
- Laboratory notebook
- Electronic laboratory notebook
- Invention disclosure form
- Software disclosure form
- Patentability
- Trademarks
- Trade secret
- Plant variety rights
- Designs
- Copyright protection
- Patent procedure
- Transfer or collaboration opportunities
- Computer software: Marketing strategy
- Business Model Canvas
- Social Business Model Canvas

Important note: many links allow you to move around inside this guide.
If you use Foxit Reader, don't forget to activate the hand tool function. This is not necessary with [Adobe Reader](#).



TOOLS AVAILABLE TO RESEARCHERS DURING KEY STEPS OF THE KNOWLEDGE TRANSFER

If knowledge transfer is envisaged, scientific publication should be done in agreement with the KTO.

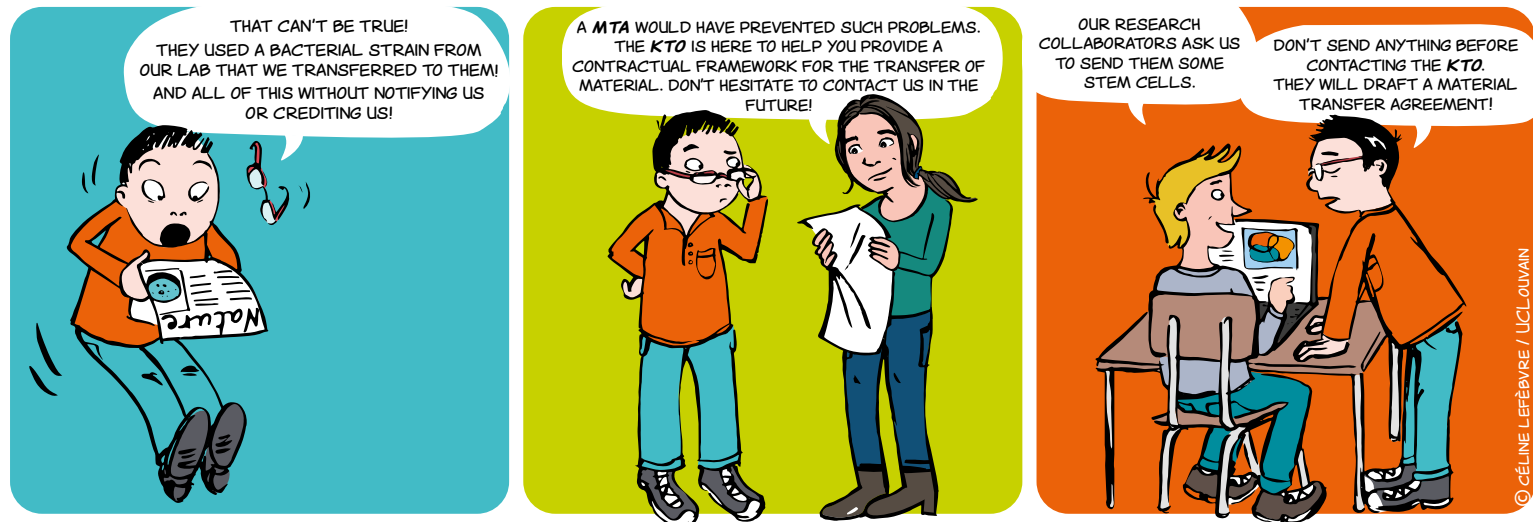


● STEPS

i TOOLS

i FOCUS AREA

MATERIAL TRANSFER AGREEMENT



WHAT IS AN MTA?

The MTA (Material Transfert Agreement) is a contract governing the transfer of material between two parties, whether public or private usually for research purposes only.

It defines the terms and conditions of the transfer of material, including those regarding ownership of the material and its modifications. Such a contract also defines the terms of use, of publication, and those related to confidentiality, etc.

IN RESPECT OF WHAT?

- ➔ For any shipment or receipt of material used generally for research purposes
- ➔ For all types of material

PROTOTYPES •
DEMONSTRATORS •
MOLECULES • POLYMERS
• MATERIALS

BACTERIA STRAINS •
HYBRIDOMAS • ANTIBODIES
• CELL LINES

SOFTWARE •
SOURCE CODE
• DATA

ANIMAL MODELS • TISSUES
• PLASMIDS • PEPTIDES •
BIOLOGICAL SAMPLES

Do you receive or provide material from research?

The MTA defines the **TERMS AND CONDITIONS** of the transfer of material!



MATERIAL TRANSFER AGREEMENT

MTA – Material Transfer Agreement

2/2

TO DEFINE WHAT?

- The research project relying on the use of the material and the objectives pursued to limit the permitted use of the material within this framework, i.e.:
- ownership of the transferred material
- ownership of modifications, discoveries and inventions made by the receiving party
- the conditions of use that the receiving party is entitled to do (manipulations, improvements, etc.)
- the persons authorised to use the material
- confidentiality related to the material, for example in the case where a patent application is being considered
- the conditions related to scientific publications that may be written about the material
- Liability for damages which may arise from use of the material

BUT ALSO PRACTICAL ARRANGEMENTS

- **identification of the material in question (nature, quantity level of hazard, etc.)**
- **bearing of transport costs**
- **duration of the agreement and terms related to the return of the material (or its destruction) upon termination of the agreement**

WHEN?

- As soon as there is a possibility of exchanging the material.
- You should then contact your KTO as soon as possible because the agreement must be concluded before the transfer of any material between the providing and the receiving organisations.

HOW?

- The MTA is negotiated by your KTO.
- It may be drafted by your KTO or proposed by the external providing party in which case your KTO will anyway carefully review such a contract.

WHO SIGNS IT?

The MTA is concluded between legal entities. Within the Academic institution, it is signed by the legal representative authorised to engage the academic institution (Rector) and by the recipient researcher.

CONTACT

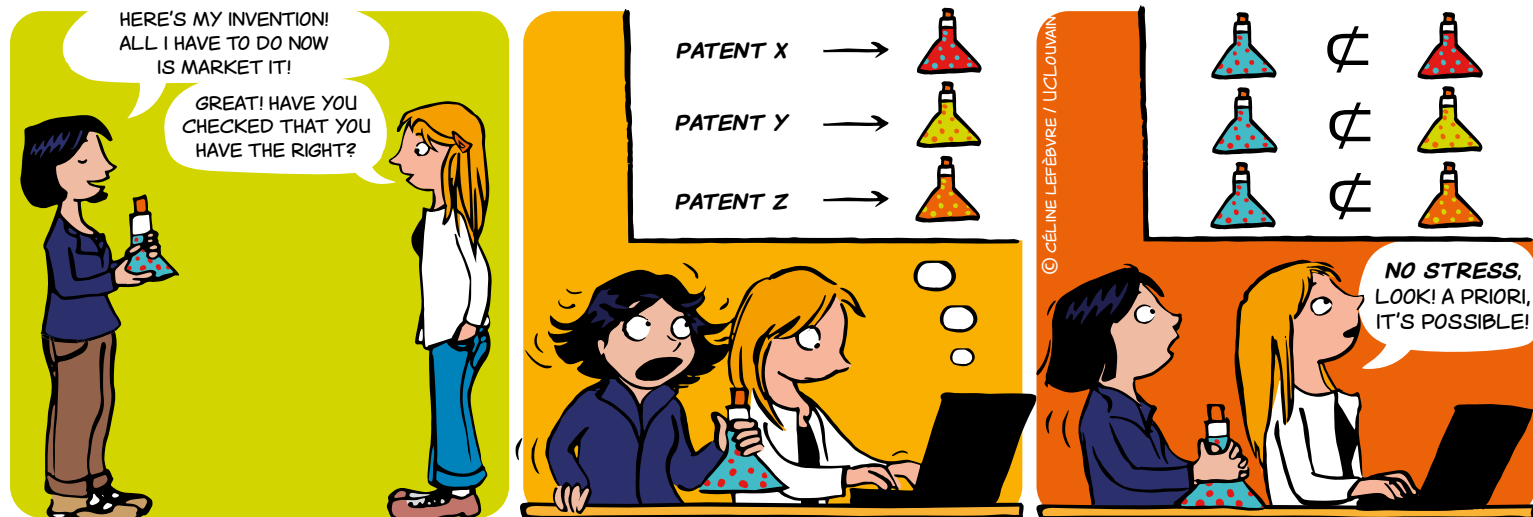
ADRE

✉ secretariat.adre@unamur.be

FREEDOM TO OPERATE

(FTO)

1/2



WHAT IS FREEDOM TO OPERATE? (FTO)

An FTO analysis is a study carried out to check that you don't risk infringing an intellectual property title that belongs to a third party, such as a brand, a design, a plant variety, a printed circuit or a patent.

This document details the case of the patent FTO.

FTO OR PATENTABILITY?

A patentability analysis involves analysing the prior art to check that an invention is new and inventive. It can be used to draw up a patent that covers the product or process concerned, while limiting the possibilities for competitors to market a product or process that is too similar.

The FTO analysis itself consists of checking that a product or process that is to be marketed does not fall partially or wholly within the field of protection (which may be definitive or provisional) of patents held by third parties.

WHEN?

Ideally, the FTO analysis should be carried out when the research begins. There is always time to think about this during the research, but once marketing has begun, it is too late.

The FTO analysis should be regularly updated during the development of the product or process until the final product or process is marketed.

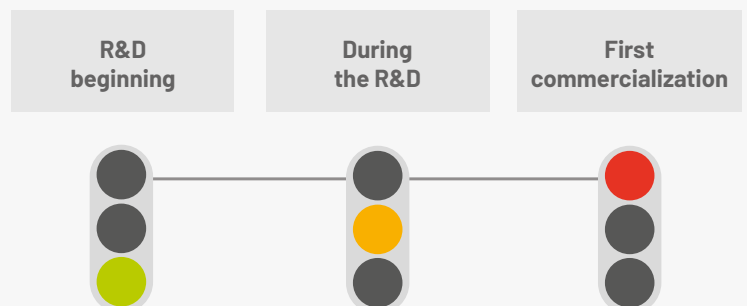
FOR WHOM?

Anyone who ultimately wishes to market a product or a process.

At universities and higher education institutions, FTO primarily concerns collaborative or applied research projects and spin-offs.

FOR WHAT?

- To make sure that you are free to operate a product or process.
- To check that the product or process you wish to develop/market is not protected by a third-party patent and is therefore not a counterfeit.
- To avoid investing in research for which no product can be marketed.
- To reassure investors.
- To avoid lawsuits.



My freedom to operate stops where that of others starts!

FREEDOM TO OPERATE

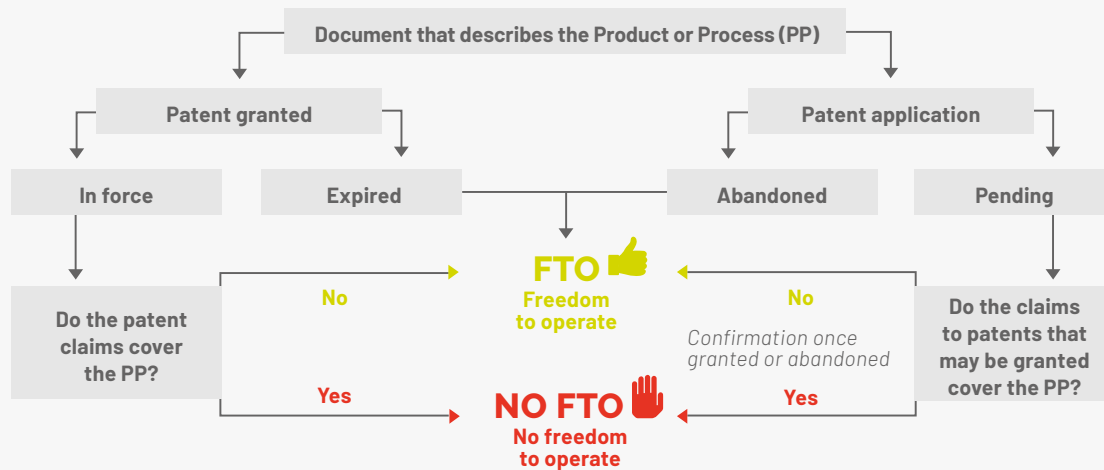
(FTO)

2/2

HOW?

Stage 1 : [Prior art searching](#)

Stage 2 : results analysis



EXAMPLES

Click on one of the three examples below for more information

NO FTO 🚫

FTO 👍

FTO 👍

CALL UPON AN EXPERT

Conducting an exhaustive FTO analysis is a complex and costly procedure that requires the intervention of an outside expert:

- to conduct the prior rights search in order to find all the relevant documents that could impede operation;
- to check the status of patent applications and patents (abandoned, pending, in force, stage of the issue procedure);
- to conduct a country-by-country analysis, because the scope of the protection may differ from one country to another.

LINKS

- [Patent procedure](#)
- [Prior art searching](#)
- [Patent as a source of information](#)

ADRE

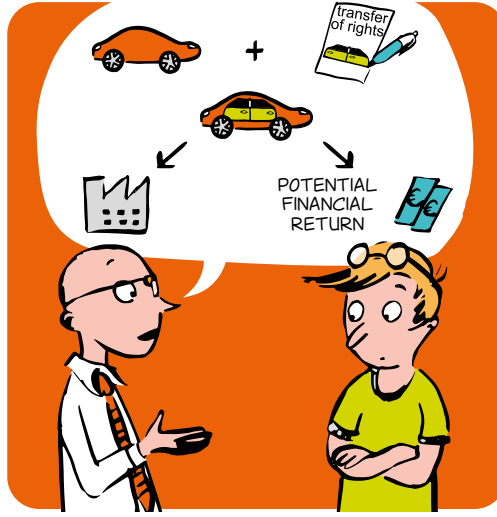
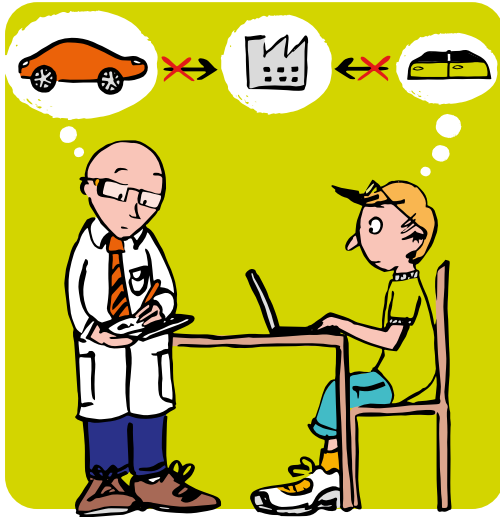
✉ secretariat.adre@unamur.be

The document is interactive and can't be printed on its entirety. Only the selected example will appear on the printed page.

TRANSFER OF RIGHTS

Student dissertation and project

1/2



WHAT IS IT?

In principle and unless otherwise agreed, a student is the holder of the results he generates as well as the related Intellectual Property (IP) rights.

A transfer of rights agreement is a contract under the terms of which the transferor (the student) undertakes to transfer to the transferee (the institution) ownership of the results developed in the context of a dissertation or a project. In general, this contract also includes confidentiality clauses whereby the transferor undertakes to keep the information secret.

HOW?

By signing an ad hoc contract provided by the KTO that specifies the object and terms of the transfer, the transferor abides by the IP regulations of the institution.

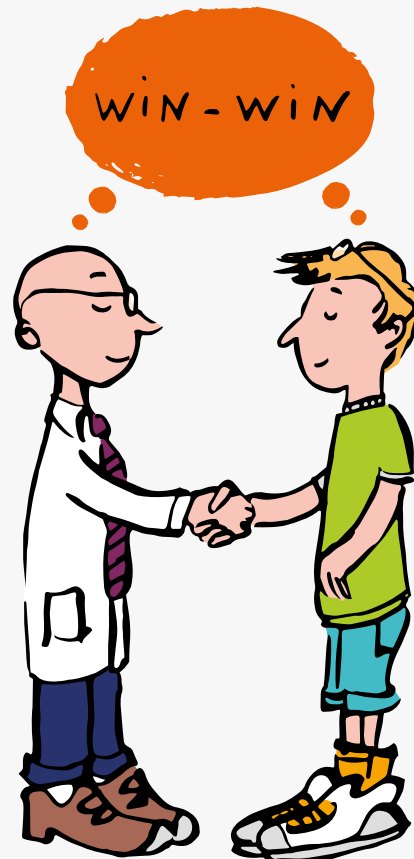
The IP regulations stipulate that the results of research conducted by members of staff of the institution (including student workers) belong to the institution.

The transfer must be signed in duplicate, one copy for the transferor (the student) and the other for the transferee.

**Pooling resources
to enhance value!**

WHO IS THE TRANSFEROR?

All individuals who are not subject to the IP regulations of the transferee, such as students, scientific collaborators and guest researchers.



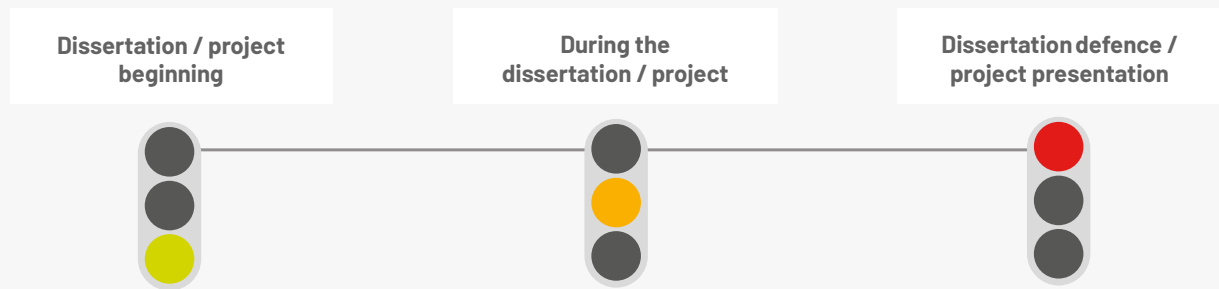
TRANSFER OF RIGHTS

Student dissertation and project

2/2

WHEN?

The transfer should be effected as soon as possible and ideally when work on the dissertation / project begins.



ADVANTAGES FOR THE TRANSFEREE

- Harmonises ownership of the results of research from a laboratory to enable valorisation.
- Enables all those who contribute to the research to benefit from the same rights and obligations.
- Reduces the risk that a one-off contributor to a research project fails to bear his share of the costs of valorisation and/or IP protection (intellectual property: patent, brands, etc.).
- Avoids lawsuits.



ADVANTAGES FOR THE TRANSFEROR

- Support and expertise of the institution (administrative, financial, legal).
- Closer collaboration with researchers to gain access to advanced research.
- Potential participation in a spin-off or a valorisation project.
- Greater visibility of the dissertation or project.
- Label of the institution on the project.
- Potential financial return.

LINKS

- **IP regulations (contact your KTO to obtain this)**
- **Contract (contact your KTO to obtain this)**

CONTACT

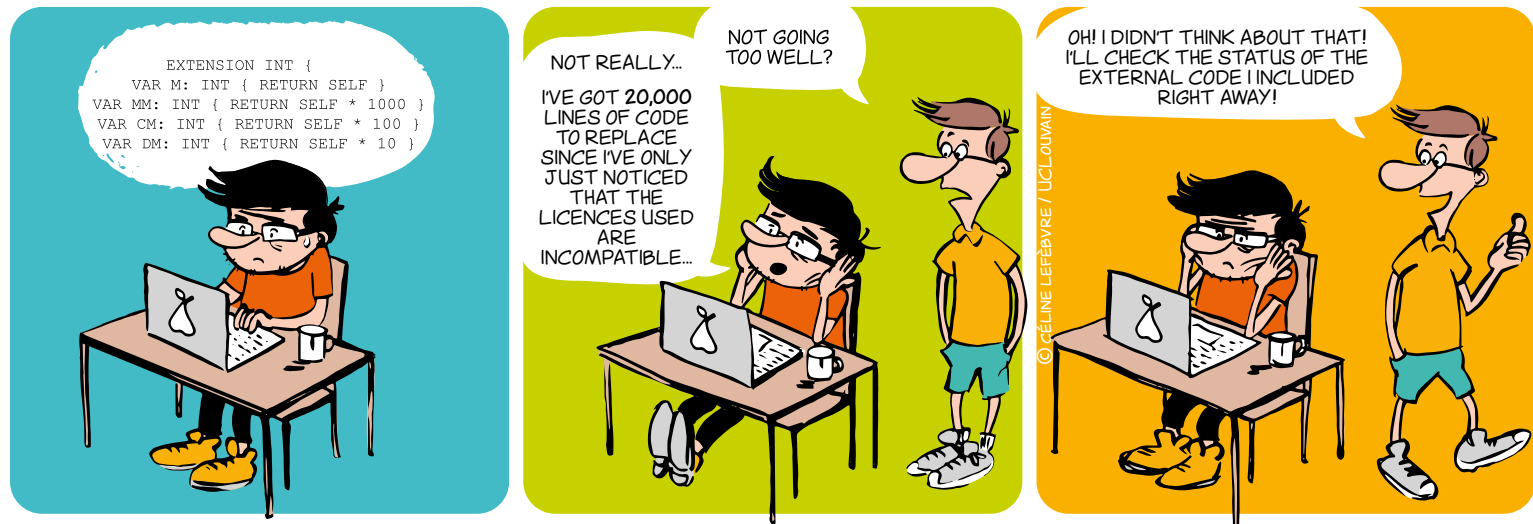
ADRE

✉ secretariat.adre@unamur.be

VALUATION OF COMPUTER SOFTWARE

Distribution strategy

1/2



WHAT SHOULD I CARE ABOUT?

What could block my research?

It is important as soon as possible to identify in which context your software will be distributed: commercially? open source? This choice has a strong impact on your research as it could open or close doors. It will also help you identify what you should or shouldn't do in terms of collaboration, code reuse, and distribution. Here are some examples of problematic situations you must be aware of:



If part of the code belongs to a **EXTERNAL PARTNER**, this partner has the right to veto any project that includes the software, be it a research programme or a commercialisation.

In every research project, try to keep the software property undivided.



Once all or part of the software has been licenced with **EXCLUSIVE RIGHTS**, or is developed under **CONFIDENTIALITY**, the licensee can block future collaboration research.

Try to keep confidentiality on data, not on code (nor algorithm or methods) and limit exclusivity by sector and geographic zone.



If you include **OPEN SOURCE** code, check the licence beforehand: some licences may prevent you from distributing a proprietary software.

If you want to keep your know-how private (proprietary code), integrate only open source code with a permissive licence : MIT, BSD, Apache, (LGPL), etc.



If you include code with **DIFFERENT OPEN SOURCE LICENCES**, beware of legal incompatibility between those licences (e.g. : GPLv2 and Apache are incompatible). This could prevent you from distributing your software (even free, even with source code, etc.).

Choose a licence as soon as you begin developing the software, and choose to integrate only open source code with a compatible licence (see chart).

VALUATION OF COMPUTER SOFTWARE

Distribution strategy

2/2

GOOD CODING PRACTICES

Version control system (Git, SVN, Mercurial, etc.)

As soon as you start, store all your code in a Version control system (Git, etc.). This will allow to:

- Easily collaborate and keep track of every contribution
- Make reproducible science (identify the specific version linked to a publication)

Source code header

Start all your code files with a Copyright and Licence header. These examples should be adapted to each case:

PROTECTION

Don't forget: only the institution is entitled to protect Intellectual Property.

- **Copyright:** protects the form (source code).
- **Patent:** protects functionality (~algorithm).
And yes, software is patentable, even in Europe.
- **Trademark and domain name:** protects reputation.
- **Confidentiality agreement:** necessary for collaborating on proprietary software.
- **Industrial design:** protects original graphic interface.
- **Sui generis law on databases:** protects the investment necessary to obtain a quality database.

TOOLS

FOSSOLOGY

Software which detects open source in code files

SONARQUBE

Software which analyses code to provide quality metrics

SOFTWARE QUALITY METRICS EXPLAINED

Report on how to understand those metrics

SOFTWARE DISCLOSURE FORM

A preparation to a first meeting about your software with your KTO

THE RESEARCHER'S GUIDE FOR CREATING SOFTWARE Guidelines mainly about software protection, and the use of open source

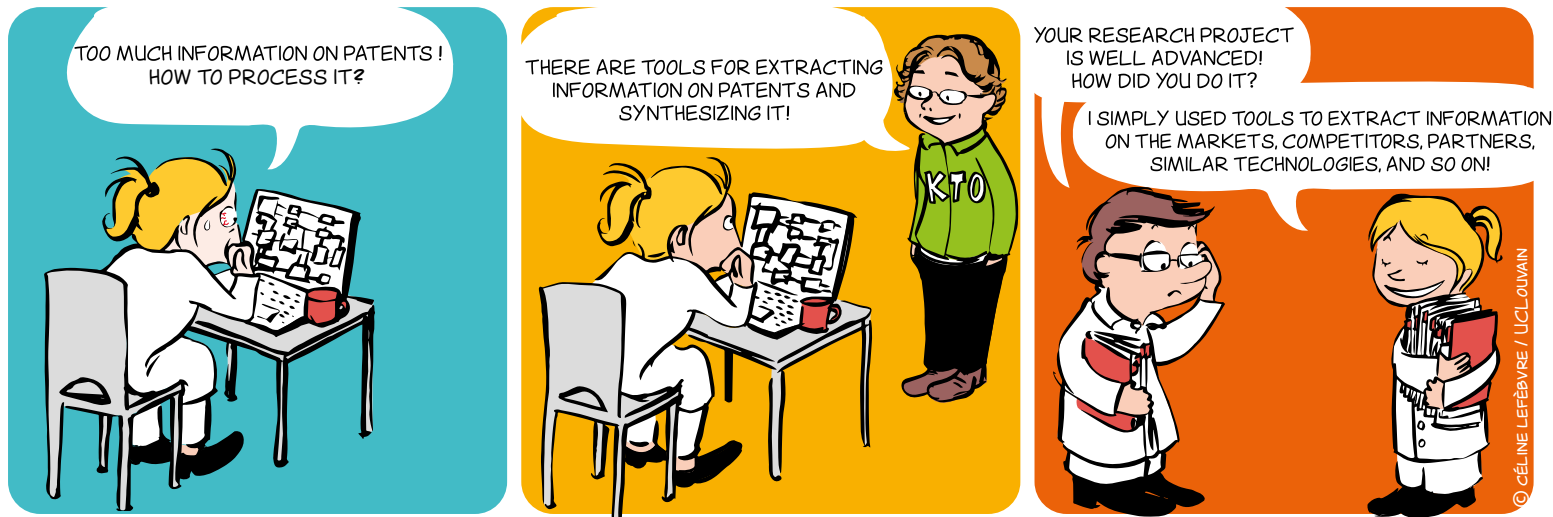
MORE INFORMATION

CONTACT

ADRE

✉ secretariat.adre@unamur.be

The document is interactive, please refer to the electronic version for additional information.

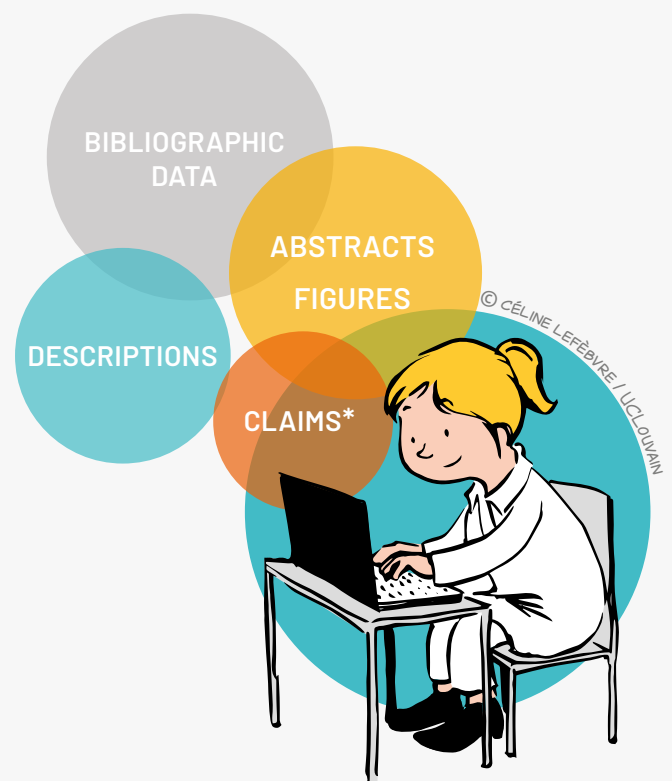


WHY?

- ➔ **Direct** your R&D strategies
- ➔ **Get to know** the research teams in a field
- ➔ **Determine** emerging, promising technologies
- ➔ **Search** for precise technical information
- ➔ **Discover** potential partners, monitor your competitors
- ➔ **Identify** new players entering the market
- ➔ **Define** market trends and opportunities

PATENTS = AVAILABLE INFORMATION

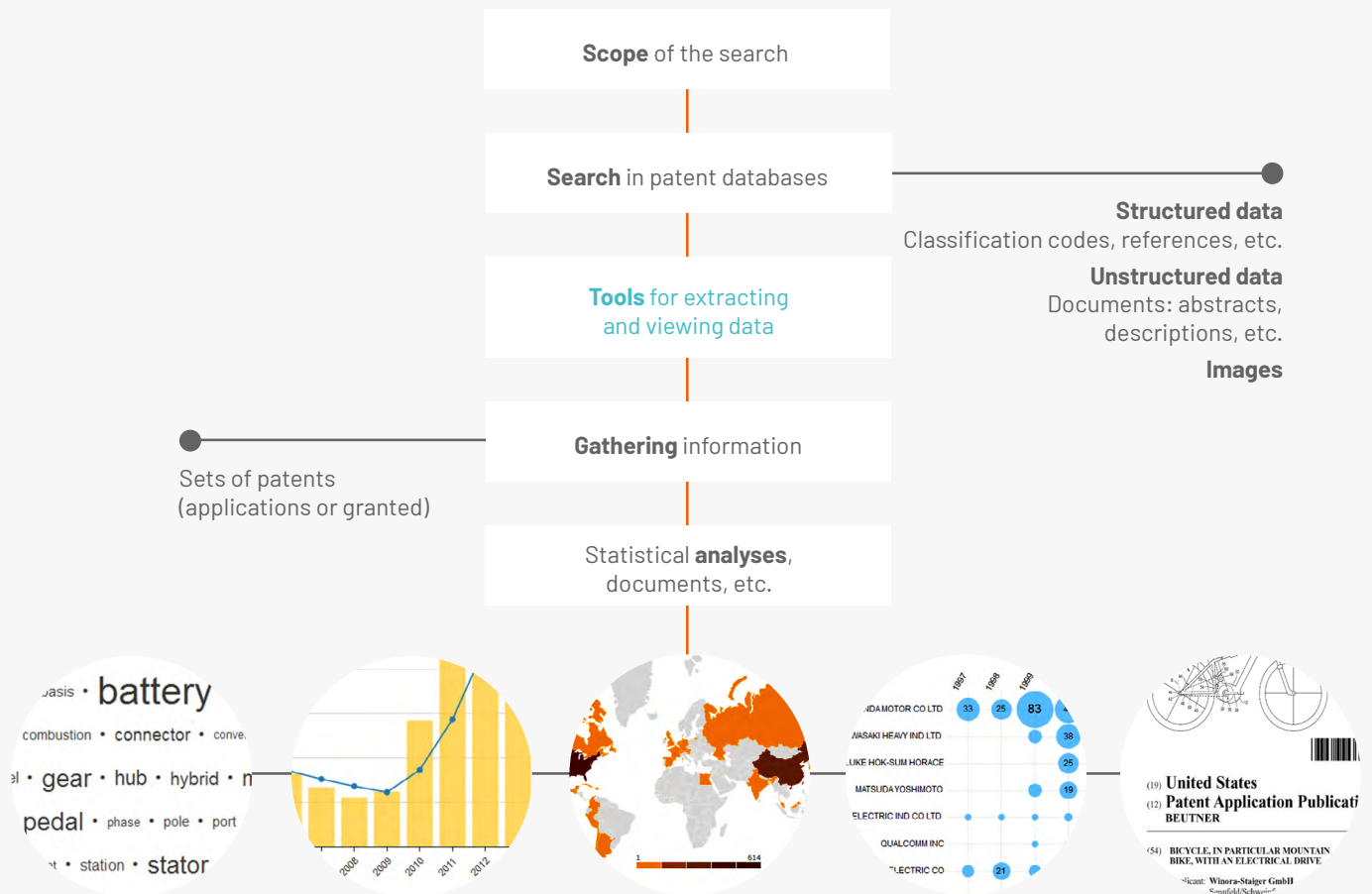
The patent is an industrial property right which gives the patent owner the exclusive right to exploit an invention and exclude others from so doing as from a certain date and for a limited period. In return, the **technical information** relating to the invention must be **disclosed in the patent application** so that anyone can reproduce it. Patent applications are published 18 months after the filing date.



* The claims define the scope of the legal protection

Patent applications contain technical,
economic and legal information.

HOW?



TOOLS

Patent databases

➔ **PatentInspiration***

<http://www.patentinspiration.com>

➔ **PatentScope***

<http://www.wipo.int/patentscope/search/en/search.jsf>

➔ **Esp@cenet**

<http://worldwide.espacenet.com>

➔ **Google Patents**

<https://patents.google.com>

* These databases allow you to process information contained in patents through statistics.

CONTACT

ADRE

✉ secretariat.adre@unamur.be



© CÉLINE LEFÈVRE / UCLouvain

WHAT IS IT?

* [Document prepared jointly by the LIEU Network \(Liaison Entreprises-Universités - Wallonia KTOs network\) and the UWE \(Union Wallonne des Entreprises - Walloon Union of Companies\)](#)

The guiding principles governing ownership and application of the findings of research conducted in partnership between universities, hautes écoles (schools of higher education), research centres and businesses, as part of any collaborative project financed by regional public funds.

WHO IS IT FOR?

Partners, such as universities, schools of higher education, research centres and/or businesses

WHAT DOES IT APPLY TO?

Collaborative research between universities, schools of higher education, research centres and/or businesses

WHY?

- ➔ To launch a collaborative project funded by Wallonia on a sound basis
- ➔ To maximise the potential applications of research findings in Wallonia, for the benefit of partners
- ➔ To take into account regulations on State Aid

WHEN SHOULD IT BE REFERRED TO?

From the early stages of a call for proposals, during discussions between partners regarding the intellectual property principles governing the project.

KEY DEFINITIONS

When setting up any research project, using the charter **BEFOREHAND** helps to avoid problems **AFTERWARDS**

KEY POINTS TO REMEMBER

OVERARCHING PHILOSOPHY

Subject to other specific provisions, **each partner owns the findings that they generate**, but grants the other industrial partners exclusive or non-exclusive rights of use over their findings in their respective fields.

All partners will focus on creating added value in Wallonia.

OWNERSHIP

Each partner remains the owner of their pre-existing know-how.

Unless other distribution criteria have been previously agreed between the partners, **ownership of the findings will revert to the partners who generated them.**

PROTECTION – CONFIDENTIALITY – PUBLICATION

Partners will ensure they:

- **strike a balance** between legal protection of findings likely to have an economic value (for example, the filing of patents or designs and models), and the dissemination of findings of scientific interest
- **prioritise the protection of the findings**, before allowing their publication
- honour the **confidentiality** of pre-existing know-how disclosed as part of the project and the findings
- **specify the arrangements for registration and maintenance of intellectual property rights** in the consortium agreement
- **submit for the prior approval of the other partners** any proposal for publication or dissemination of the findings

RIGHT OF ACCESS TO PRE-EXISTING KNOW-HOW

Each partner must make the following available to the other partners, free of charge:

- pre-existing know-how via a free, non-exclusive licence (provided they may freely grant usage thereof)
- the tools or materials required to implement the project

USAGE RIGHTS OVER THE FINDINGS

- Each partner may freely use the findings of which they are owner, subject to the rights they have granted to the other partners.

- If industrial partners involved in the project:

→ **are not the owners of the findings**

They may benefit from an exclusive licence to use the findings resulting from the project in their field of activity, in preference to any other company

→ **are owners of the findings**

They may grant the universities a non-exclusive licence to use the findings for education and research purposes.

CONTACT

LiEU Network

✉ contact@reseaulieu.be

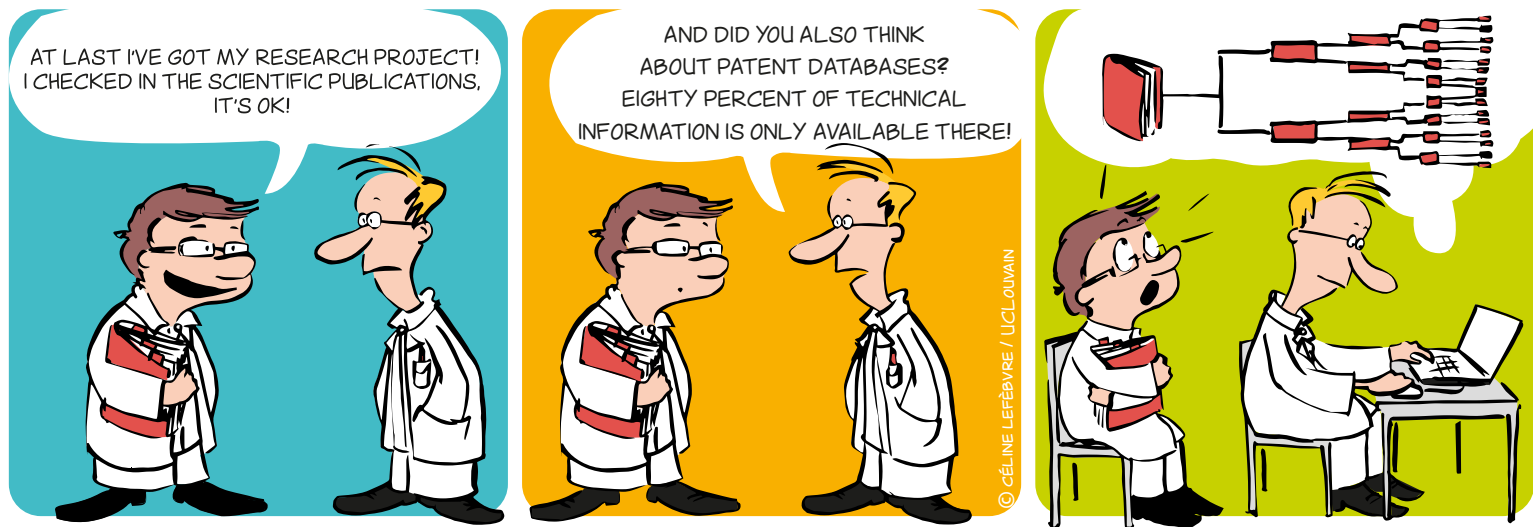
☎ +32(0)81/62.25.94

This document is interactive, please refer to the electronic version for more information.

PRIOR ART SEARCHING

in patent databases

1/2



WHY?

To launch a research project, file a patent application, identify partners or competitors, and to assess freedom to operate.

WHAT IS A PATENT?

A patent is a right of ownership granted by a public authority on a geographical territory and for a determined period.

This official right gives the patent owner the right to prohibit a third party from exploiting - in other words manufacturing, using, marketing and/or importing - the protected invention without the owner's authorization.

Patent = technical solution to a technical problem

WHAT ARE THE CONDITIONS FOR AN INVENTION TO BE PATENTABLE?

- ➔ Novelty
- ➔ Inventive step
- ➔ Industrial applicability

WHAT IS PRIOR ART SEARCHING?

Prior art searching involves determining the **state of the art**, in other words all the information, patents or other publicly available sources before the filing date of an application.

Given that patents (currently several tens of millions of applications) contain a large amount of technical information that cannot be found anywhere else, patent databases are essential tools for effective state of the art analysis.

80% is only to be found in patents !

HOW?

1) Conduct a prior art search BEFORE filing a research project or patent application.

2) Define the technical problem you want to resolve.

3) Stay alert to everything that is/has been published by third parties or by inventors themselves! (patent application, scientific article, presentations by public speakers, article in non-specialist journal, invention exhibition at a trade show, commercialization of inventions, etc.) since these form part of the state of the art and are therefore likely to kill the novelty and/or inventiveness of an invention.

4) Know the state of the art in the field in question so that you can distinguish what is commonly known from what will be innovative.

5) Prepare your research strategy by combining various search parameters: key words, classification codes, names of applicants (partners, competitors) or of inventors and citations. **Adapt it** using an iterative process based on documents found. **Document it** so that you don't lose the main thread!

6) Use public databases that are free to use (or free in part) as a first line approach.

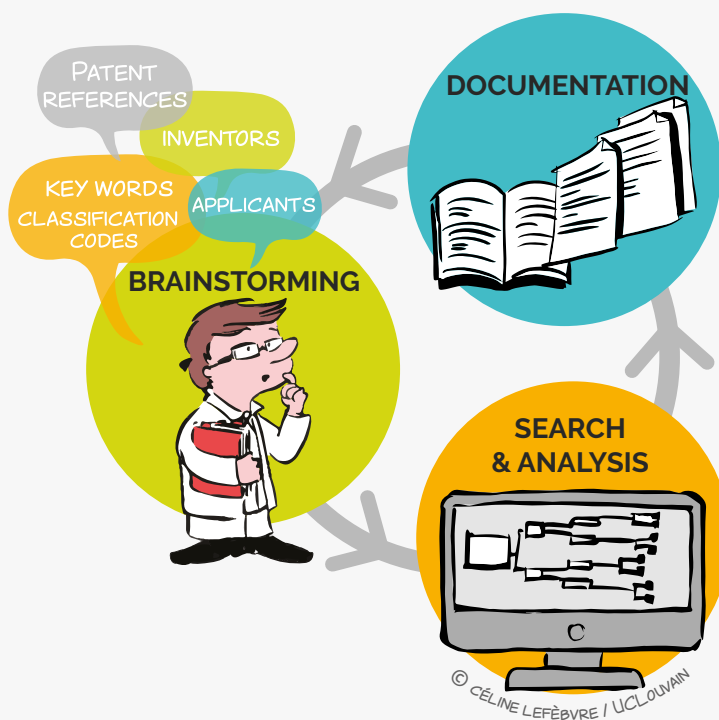
→ **PatentInspiration**
www.patentinspiration.com

→ **Esp@cenet**
<http://worldwide.espacenet.com>

→ **Google Patents**
<https://patents.google.com>

→ **PatentScope**
www.wipo.int/patentscope/search/en/search.jsf

7) Complete the information with the help of an advisor or specialist organization such as PICARRÉ.



CONTACT

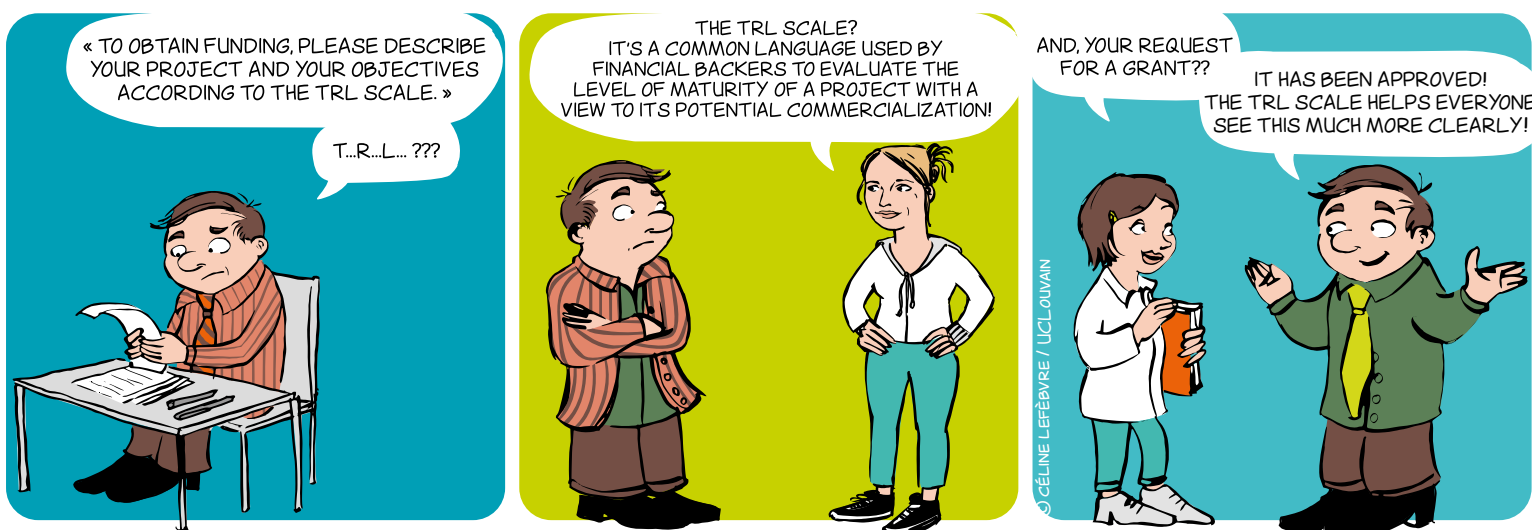
ADRE

✉ secretariat.adre@unamur.be

TECHNOLOGY READINESS LEVEL

A scale of maturity and a tool to help innovate and collaborate

1/2



WHAT?

Originating in the aerospace sector, the concept of TRL is a means to manage the development of a technology toward a practical application. Transposed to research, this tool will help you launch successful collaborative projects.

Comprising 9 levels corresponding to validation phases, it is generally divided into 3 time periods based on the predominant character of the work at a given time in the innovation process.

TECHNOLOGY READINESS LEVELS



Share the same language to assess the levels of maturity of a project

TECHNOLOGY READINESS LEVEL

A scale of maturity and a tool to help innovate and collaborate

2/2

WHY?

The TRL concept is very useful since it provides a **common reference framework for defining and evaluating objectives, risks and investments** by the parties involved in a collaborative project.

The partners agree on a starting point at the outset of a project and together define the level of maturity to be reached within the scope of their collaboration, and the tasks to be undertaken.

It is therefore primarily a **communication tool used for more effective collaboration** by the partners in an innovation process, including enterprises, researchers but also financial backers. Indeed, identification of adequate funding can be more easily defined based on the levels of maturity to be passed through in the course of a project.

The generic scale presented here can of course be adapted using vocabulary specific to the area of collaboration and the partners' circumstances.

SUCCESSFUL PRODUCT	9	Product suitable for different applications and subject to competitive production
MARKETED PRODUCT	8	Complete, clearly qualified commercial product is available
MANUFACTURED PRODUCT	7	Product demo approved in an operational environment
PRODUCT DEMO	6	Product demo approved in a meaningful environment performing in a similar way to expectations
PROTOTYPE PRODUCT	5	Prototype approved for all of its critical functions in a meaningful environment
INTEGRATIVE PROTOTYPE	4	Prototype incorporating the solution approved in the laboratory
FEASIBILITY	3	Proof of concept for the solution/application and feasibility study
INVENTION	2	Concept of the solution and/or the application formulated
IDEA	1	Basic principles observed and described

Based on a work carried out by the LIEU (Liaison Entreprises-Universités) Network and AEI (Agence pour l'Entreprise et l'Innovation)

CONTACT

ADRE

✉ secretariat.adre@unamur.be

RESEARCH AND THE RISKS OF MISUSE

Think about the potential risks of your research being hijacked by a third party!

1/2



WHAT IS A DUAL-USE ITEM?

A dual-use item means equipment, software or technology that can be used for both civilian **and** military purposes. Such items are listed in Regulation (EU) 2021/821 of 20 May 2021 setting up a Union regime for the control of exports, brokering, technical assistance, transit and transfer of dual-use items (Official journal L 206/1 of 11 June 2021, and the related updates – Annexes reviewed annually)¹.

WHAT DOES THE TERM 'MISUSE' COVER?

Misuse refers to the **risk**:

- of the use of equipment, software or technologies with a view to the proliferation of Weapons of Mass Destruction (WMD), acts of terrorism or any activities contrary to respect for human rights;
- of use for a military end-use – e.g. cyber-surveillance, emerging technologies, artificial intelligence – suspected in a country that is subject to an arms embargo.

WHAT IS MEANT BY 'EXPORT'?

'**EXPORT**' in this case means any **TRANSFER** considered in a very broad sense:

- any oral, written, electronic or visual disclosure;
- any shipment, transfer or transmission of products, technologies, information, technical data, software codes and assistance;
- any publication and cloud computing.

WHAT IS THE CONTROL OF 'EXPORTS/TRANSFERS'?

This control refers to several laws and regulations that have a common goal: to prevent the transfer of certain tangible items (for example, a prototype) or intangible items (for example, know-how) for reasons of national or international security, without specific authorisation ('**export**' **licence**) granted by the regional authorities.

WHEN DO WE NEED AUTHORISATION ('EXPORT' LICENCE)?

An 'export' licence is required for the transfer of a product and/or technology (linked to the product) **outside the European Union**, if this product:

- **is** included in the control list of dual-use items (Annex I of Regulation (EU) 2021/821¹)
- **is NOT** included in the control list of dual-use items (Annex I of Regulation (EU) 2021/821¹). A catch-all control therefore applies for the risk of misuse.

N.B.: For the products and technologies included in Annex IV, an export licence is required even **within the European Union**.

**You have to prove your credentials
to circulate research results abroad!**

¹ EN version: <https://eur-lex.europa.eu/eli/reg/2021/821/oj>

RESEARCH AND THE RISKS OF MISUSE

Think about the potential risks of your research being hijacked by a third party!

2/2

WHO SHOULD YOU CONTACT?

To contact the competent authorities, you should go through your university's Knowledge Transfer Office (KTO).

'Export' licences are issued by the regional authorities.

→ **Wallonia:** Service Public de Wallonie - Direction des Licences d'armes (Walloon Public Service - Weapons Licences Directorate)

→ **Brussels-Capital Region:** Service public régional de Bruxelles - Cellule licences armes et biens à double usage (Regional Public Service of Brussels - Weapons Licences and Dual-use Items Unit)

N.B.: In addition, a re-export licence from the US Bureau of Industry and Security may be necessary in the event of American content.

WHAT ARE THE CONSEQUENCES IF WE EXPORT WITHOUT A LICENCE?

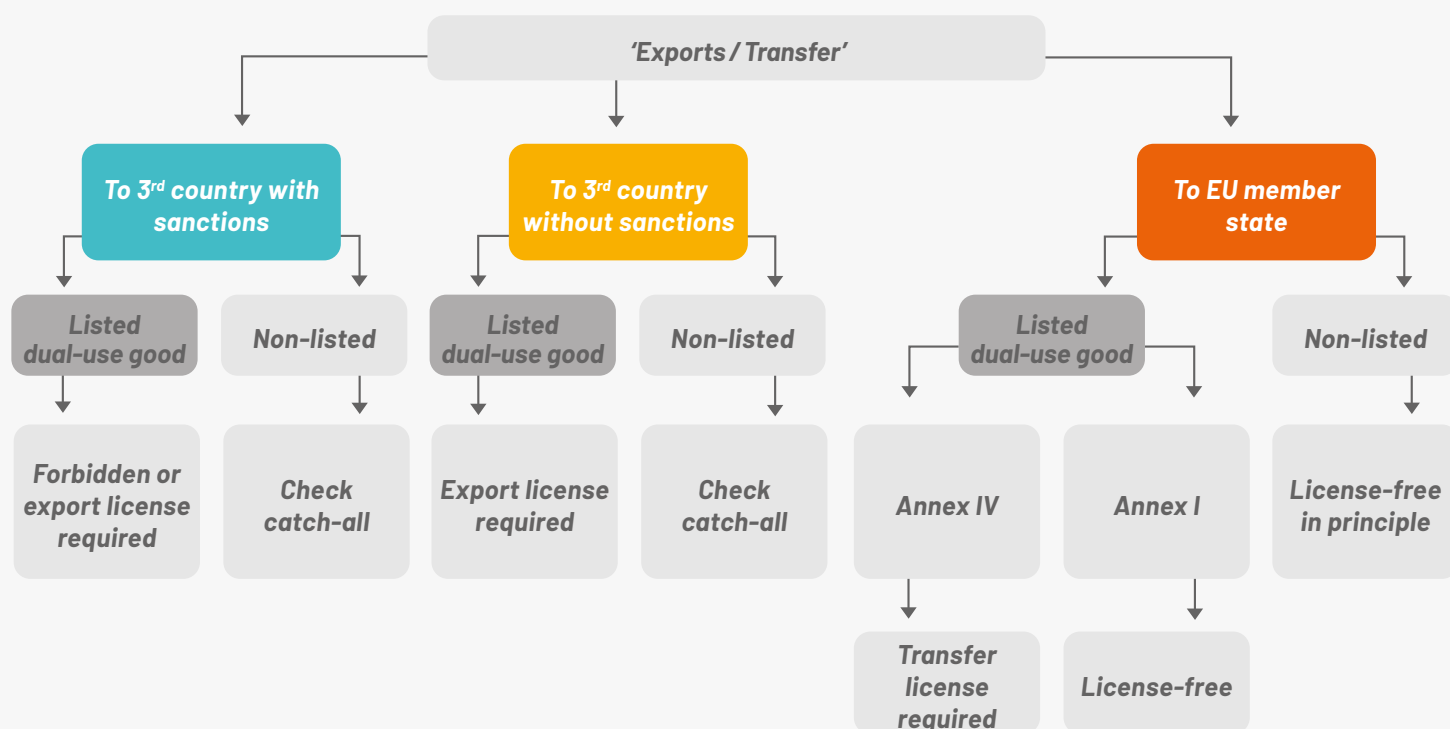
The 'export' controls are **mandatory**.

This means:

→ that it is not possible to diverge from these decisions through contractual clauses;

→ that an infringement of these laws is an infringement of public policy decisions.

Consequently, the penalties for the infringement of the laws and regulations on the control of exports are severe and may be civil and/or criminal. Moreover, your reputation and the reputation of your institution could be seriously impacted if these regulations are not observed.



LINKS

[Regulation \(EU\) 2021/821 of the European Parliament and of the Council of 20 May 2021 setting up a Union regime for the control of exports, brokering, technical assistance, transit and transfer of dual-use items](#)

CONTACT

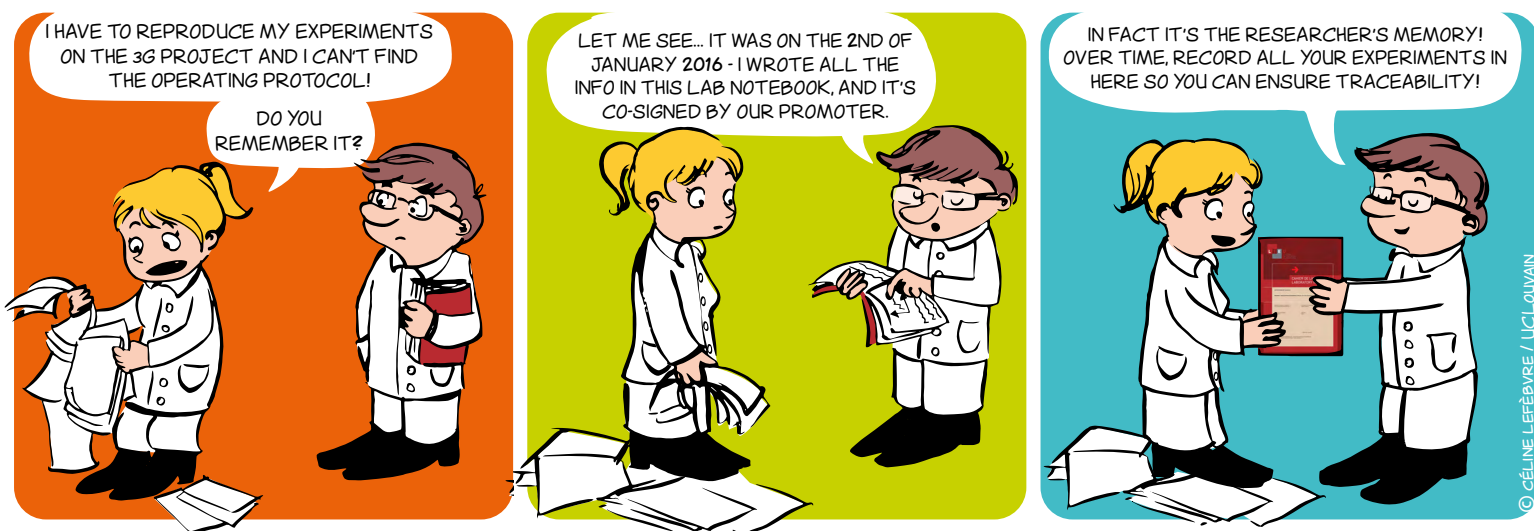
ADRE

✉ secretariat.adre@unamur.be

USE THE LABORATORY NOTEBOOK WITHOUT MODERATION

Your research down in black and white!

1/2



WHY?

- **Traceability tool:** the researcher's and the laboratory's memory
- **Legal tool:** evidences
- **Scientific tool:** log book

WHO DOES IT AND FOR WHOM?

- Each researcher (including students) should have their own lab notebook to **RECORD AND DATE** their research experiments and findings
- The lab notebook must be signed by the researcher **AND** countersigned by the promoter
- The book remains within the laboratory and serves as its memory

HOW TO COMPLETE IT

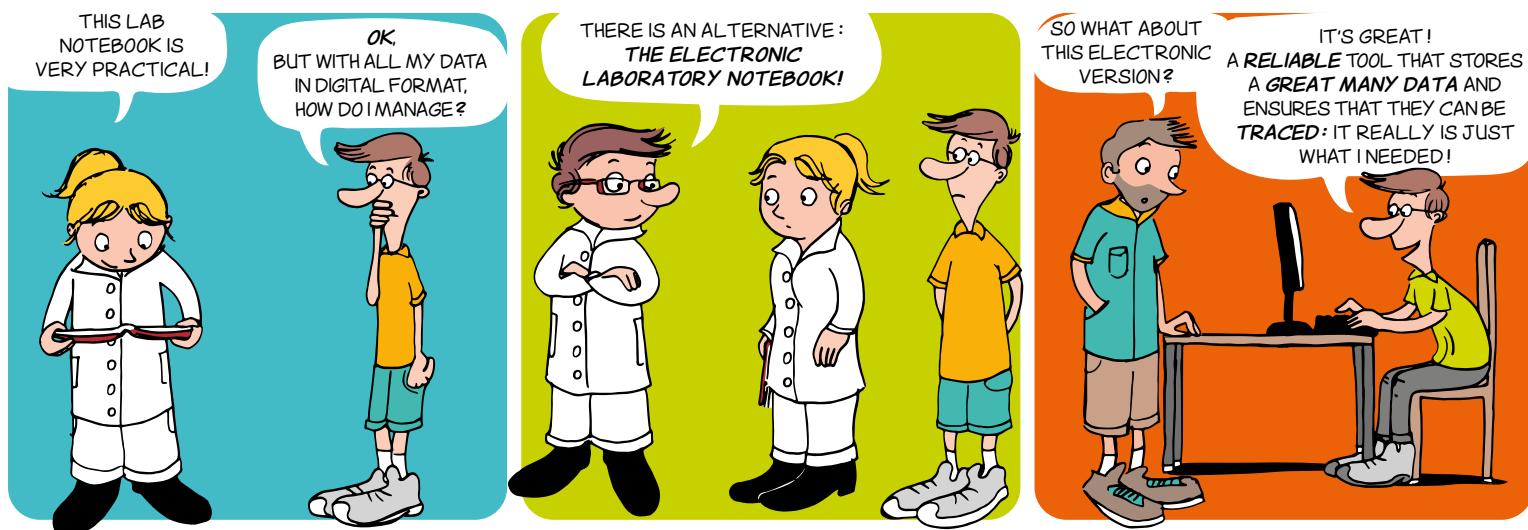
- **Chronologically** and **daily**
- **Clearly** and **exhaustively** (dates, procedures, references of the products and reagents used, results and observations, interpretations and comments, new ideas and hypotheses, etc.) so that a third party can reproduce the experiments
- With **non-erasable** ink
- Regularly **signed** and **countersigned**

The information contained in the lab notebook is confidential and the property of the University or the Higher Education Institution

THE LABORATORY NOTEBOOK

What if you opted for the electronic version?

1/2



The laboratory notebook is essential for the working of any research entity:

- notes details of ongoing research and experiments on a daily basis;
- ensures that knowledge is passed on and data can be traced;
- is central to the management of intellectual property.

(cf. memo Use the laboratory notebook without moderation: your research down in black and white!)

The electronic laboratory notebook is the digital equivalent of the paper laboratory notebook. With the growth in the volume of data and the multiplicity of people involved in the same research project, it is becoming increasingly indispensable in many research fields.

THE ADVANTAGES OF THE ELECTRONIC VERSION

Data management

Data sharing

- Data accessible to the Principal Investigator and to other researchers in the team, including those working at a distance in geographic terms (subject to predefined authorisations)
- Standardisation of processes, protocols within a research team

Data backup

- Regular and automatic backups
- Possibility of recording the data of several researchers working on the same experiment

Data security

- Access control and management of rights to safeguard the intellectual property of each individual

Document management

- Integration of other electronic documents (various formats: images, chemical structures, texts, etc.)

Environment

- Reduced paper consumption

Data traceability

Protection of intellectual property

- Meticulous audit path, version follow-up, e-signatures

Information searches

- Easy and intuitive to use (synopsis; classification by project; search by key word, date, researcher, etc.)
- Possibility of retrieving information easily, even several years later

Operating procedures / protocols

- Possibility of recording models that are easy to duplicate and adapt when repeating similar experiments

Equipment management

- Centralisation and planning the use of equipment within a research entity

Reduced risk of transcription errors

- Audio recording / data collected directly from a device

Credibility among businesses

- Stakeholder in a quality process that is particularly appreciated in the business world

CONDITIONS OF USE

Installation of a specific software program

- Compatibility with other environments
- Involvement of other IT services in the institution, particularly if the software is open source
- Updating necessary for long-term maintenance

Development of the tool and adoption by users

- Involvement of researchers
- Training for users
- Definition of good practices

Data hosting

On an external or a local server, as preferred

With local servers, pay attention in the long term to:

- the data storage capacity
- data preservation (backup procedures)

Financial cost

- To be taken into account. It may be high for proprietary software programs
- Existence of open source solutions

Working environment

- Computer needed for data input

OPEN DATA, DATA MANAGEMENT PLAN AND ELECTRONIC LABORATORY NOTEBOOK

Given current policy guidelines all recommending Open Data, the electronic laboratory notebook is inevitably tending to become a permanent feature.

It naturally supports the Data Management Plan, becoming obligatory for European projects and probably applicable in 2020 for projects funded by the FNRS (National Fund for Scientific Research).

The electronic laboratory notebook contributes towards sound management of a research entity via:

- identification, storage and explanation of the use of data (central issue of the DMP)
- identification of the background of the research entity
- clear identification of the contribution made by inventors in the event of a patent or another type of protection (copyright, etc.)

Some examples of use in French-speaking universities

The Institute for Medical Immunology at the ULB has been using the OpenLAB ELN solution from Agilent since 2010.

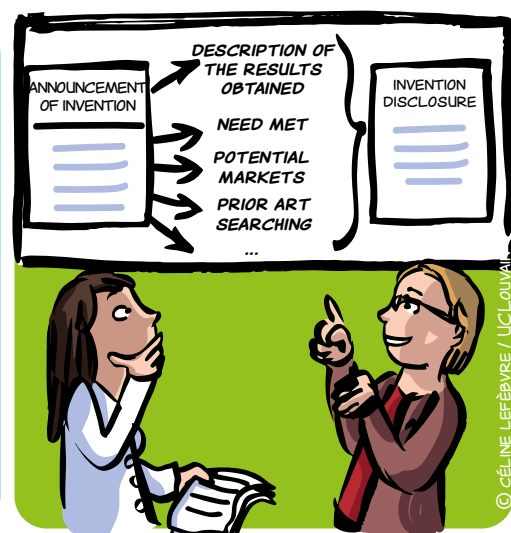
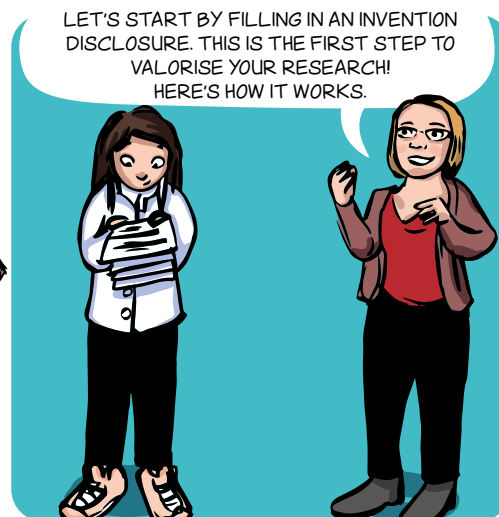
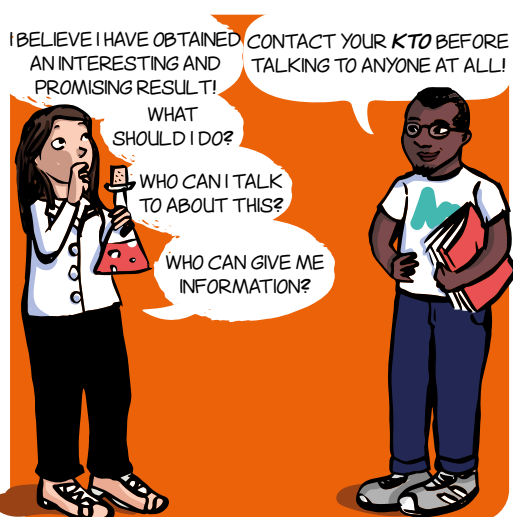
UNamur has chosen the eLabFTW open source solution. The platform was installed on a local server in 2017 and is available to all researchers at the institution.

After an in-depth study to select software that combines the tools of an ELN and those of a LIMS while meeting the same objectives and scientific challenges as the paper notebook, ULiège makes the RSpace tool available to all its researchers.

ADRE

✉ secretariat.adre@unamur.be

All the advantages of the laboratory notebook with the ease of use and flexibility of an electronic solution



WHAT IS IT?

The Invention Disclosure is a single form provided by your KTO to start the process of valorising the results of your research.

In the first instance, you will provide a brief description of your invention here: this is the **Announcement of Invention**.

After this, together with your KTO, you will give precise details of this invention, the need it meets, the potential market it covers, a patentability analysis, etc. This is referred to as an **Invention Disclosure**.

So this is a tool for communication and the structured exchange of information with your KTO. It is also an essential working document of your KTO that will make it possible to determine the most appropriate means of disseminating and valorising your research results.

WHEN DO YOU FILL IN A ID?

The ID should ideally be filled in when:

- you think you have a research result that stands out owing to its innovative or surprising character
- you think that a company or society could be interested in your result
- you wonder about the need to protect the results (**copyright protection**, **patent procedure**, **trade secret**, **trademarks**, **designs**, **plant variety rights**).

Contact your KTO without delay!

WHY FILL IN A ID?

The purpose of the ID is to gather as much useful information as possible to start a process for the management and, if need be, protection of your invention/innovation and to facilitate the follow-up of the maturing process.*

- It is a working tool and a means of joint communication.
- It facilitates the exchanges and understanding of the results to be valorised.
- It enables an informed choice regarding the valorisation approaches to be preferred.
- It makes it possible:
 - to keep a record of the contributions made by the researchers involved in the development of the results to be valorised;
 - to determine who owns the rights to your invention/innovation.

* In the interests of simplicity, the term 'invention' will imply more broadly any technical or social innovation

WHAT DOES THE ID CONTAIN?

Information about the invention:

- Type of invention (compound, molecule, product, service, social innovation, etc.);
- A summary of the invention (problem, description, target group, innovative character, etc.);
- Disclosures made or planned (important when you are considering filing a patent application);
- Information of use for a bibliographical search (key words, scientific publications, patents in the field, etc.);
- The agreements reached concerning intellectual property (collaboration agreements, sponsorship agreements, MTAs);
- The level of development of the invention ([Technology Readiness Level, TRL](#));
- The resources necessary for the invention to mature and for its future developments;
- The scientific fields concerned;
- etc.

Administrative information such as:

- The contact details of the researchers who worked on the development of the results to be valorised;
- The inventive contribution of each one to the invention;
- The project funding sources.

To serve society better,
your inventions you will
declare!



LINKS

- [Patentability](#)
- [Patent as a source of information](#)
- [Prior art searching](#)

HOW TO GET IT

ADRE

✉ secretariat.adre@unamur.be

This PDF version gives an overview of the document.
Please contact the [ADRE](#) to access and fulfil the electronic version.

1. SOFTWARE DISCLOSURE IDENTIFICATION

Date :

Contact Person:

Software Name :

Version Number :

2. SOFTWARE DEVELOPMENT INFORMATION

Development Phase (final, beta, production...) / Technology Readiness Level (see annex 1):

Type of Development

- | | |
|---|--|
| <input type="checkbox"/> Generic Software or Stand alone software | <input type="checkbox"/> Database |
| <input type="checkbox"/> Algorithm | <input type="checkbox"/> Research Tool/Library |
| <input type="checkbox"/> App | <input type="checkbox"/> Game |
| <input type="checkbox"/> Module/Plug-in | |

If Module/Plug-in, name the framework/platform associated:

Software protection information

☐ Is there a logo? If yes, please send the logo together with this document.

Brand protected : ☐ no / ☐ yes : date and reference :

☐ Source code protected ? If yes, please describe the type of protection :

Programming language(s) used (C++, PHP/MySQL, Fortran...):

Desired Distribution (open-source / commercial / both):

Requirement(s) to run the software (OS/Hardware/Software license/other codes):

Support (manual/Online help/Tech support?)

Dependencies of the Software (e.g. open-source libraries, modules developed by a partner...):

Copyright Holder	Name (or short description)	License type (GNU, BSD etc.)

Funding: (type = Internal Funding, Regional, National, European or Other)

Type	Name/acronym	Duration	Nature of the contract	Industrial sponsor/partner

3. GENERAL INFORMATION

1. **Description of the software:** provide a brief general description of the software and its added value, list 5 keywords and if required include schema/pictures.

2. **NEED:** which problem(s) or need(s) is (are) addressed by this software? Does the software meet an unmet need or answer an unsolved problem? Why/How?

3. BENEFITS: detail why this software solution is different from existing ones and please explain why and/or how?

Yes	No	?	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CHEAPER. The software is cheaper to make or use than those currently available on the market. Why/How?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	EASIER TO USE. The software is less complicated, less labor intensive, more user friendly than those currently available on the market. Why/How?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	EASIER TO MAKE. The software is less complicated/complex to develop than those currently available on the market. Why/How?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	FASTER. The software works faster than those currently available on the market. Why/How?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MORE PRECISE. The software yields more accurate results than those usually achieved. Why/How?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MORE ATTRACTIVE. The software would appeal to a broader segment of the market than those currently on the market. Why/How?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	CLEAR VALUE. Other software currently available on the market are so similar that the added value of this one will be readily apparent. Why/How?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	MORE RELIABLE. The software breaks down less frequently, or is more consistently successful, than those currently available on the market. Why/How?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	EASIER TO FIX. The software is less complicated or costly to develop and maintain than those currently available on the market. Why/How?

4. MARKET POTENTIAL

4.1. Specify the positioning of your software on the market

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LASTING MARKET. The need or demand for the software will last for a very long time. Why/How?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	LARGE MARKET. There is already a large market for this software, or the appeal of the software can be expected to create a large market where none previously existed. Why/How?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	GROWING MARKET. There has been steady growth in the target market for your software over a number of years. Why/How?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HIGHER PROFIT MARGIN. Their software is easier and cheaper to make than those currently available on the market, but can be sold at a comparable price.

			Why/How?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	EASY FOR USERS TO SWITCH. The software is sufficiently similar to those currently available on the market that users will easily be able to switch. Why/How?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HARD TO DUPLICATE. Competitors will have difficulty developing an equivalent software, or in solving problems without it. Why/How?

4.2. To whom (users, customers, industry) is this invention dedicated? List the names of companies you think might be interested in using your technology to make, use or sell products or services. Please specify with examples (company names, press articles...) + Applications?

If you have a contact at any of these companies, be sure to provide name, position, e-mail and telephone. (We will obtain your permission before contacting anyone).

Company	Have you had contacts with this company?	Contact Name	Position/Title	E-mail	Phone	Does this company already offer a similar product?
	<input type="checkbox"/> Yes <input type="checkbox"/> No					<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Yes <input type="checkbox"/> No					<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Yes <input type="checkbox"/> No					<input type="checkbox"/> Yes <input type="checkbox"/> No
	<input type="checkbox"/> Yes <input type="checkbox"/> No					<input type="checkbox"/> Yes <input type="checkbox"/> No

5. CONTRIBUTORS

Please list all contributors to the software known at this time. The list of contributors will be finalized later, after consultation with your Technology Transfer Office.

Last Name		Description of contribution to the invention
First Name		
Institution		
Phone		
Email		
Last Name		Description of contribution to the invention
First Name		
Institution		
Phone		
Email		
Last Name		Description of contribution to the invention
First Name		
Institution		
Phone		
Email		

Annex 1 -- Software TRL Scale developed with the LIEU Network

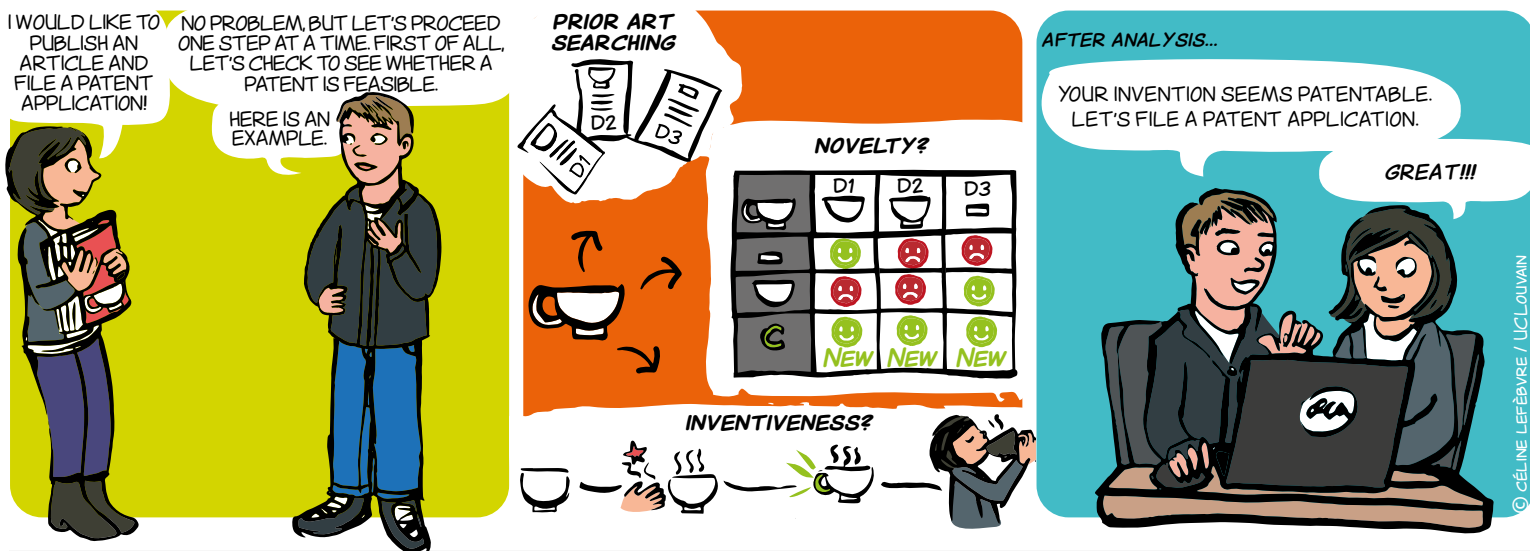
LAB SCALE	<input type="checkbox"/>	TRL1: Idea	Basic research begins to be translated into applied research and development. Examples may include a concept that can be implemented in software or analytic studies of an algorithm's basic properties.
	<input type="checkbox"/>	TRL 2: Invention	Once basic principles are observed, practical applications can be postulated. The application is speculative and there is no proof or detailed analysis to support the assumptions.
	<input type="checkbox"/>	TRL 3: Feasibility - Analytical and experimental critical function and/or characteristic proof of concept	Active research and development is initiated. This included analytical studies to produce code that validates analytical predictions of separate software elements of the technology. Examples include software components that are not yet integrated or representative but satisfy an operational need. Algorithms run on a surrogate processor in a laboratory environment.
PILOT SCALE	<input type="checkbox"/>	TRL 4: Integrated prototype - Technology component and/or basic technology sub-system validation in laboratory environment	Basic software components are integrated to establish that they will work together. They are relatively primitive with regard to efficiency and reliability compared to the eventual system. System software architecture development initiated to include interoperability, reliability, maintainability, extensibility, scalability, and security issues. Software integrated with simulated current/legacy elements as appropriate.
	<input type="checkbox"/>	TRL 5: Product prototype - Technology component and/or basic sub-system validation in relevant environment	Reliability of software ensemble increases significantly. The basic software components are integrated with reasonably realistic supporting elements so that it can be tested in a simulated environment. Examples include "high fidelity" laboratory integration of software components. System software architecture established. Algorithms run on a processor(s) with characteristics expected in the operational environment. Software releases are "Alpha" versions and configuration control is initiated. Verification, Validation, and Accreditation initiated.
	<input type="checkbox"/>	TRL 6: Product demonstrator - Technology system/subsystem model or prototype demonstration in a relevant environment	Representative model or prototype system, which is well beyond that of level 5, is tested in a relevant environment. Represents a major step up in software demonstrated readiness. Examples include testing a prototype in a live/virtual experiment or in a simulated operational environment. Software run on processor of the operational environment are integrated with actual external entities. Software releases are "Beta" versions and configuration controlled. Software support structure is in development. Verification, Validation and Accreditation are in progress.
MARKET SCALE	<input type="checkbox"/>	TRL 7: System prototype demonstration in an	Represents a major step up from Level 6, requiring the demonstration of an actual system prototype in an operational environment. Algorithms run on processor of the operational environment are integrated with

Software Disclosure
KTO contact : [nom du valorisateur]

Confidential



		operational environment	actual external entities. Software support structure is in place. Software releases are in distinct versions. Frequency and severity of software deficiency reports do not significantly degrade functionality or performance. Verification, Validation and Accreditation completed.
	<input type="checkbox"/>	TRL 8: Actual system completed and qualified through test and demonstration	Software has been proven to work in its final form and under expected conditions. In most cases, this level represents the end of true system development. Examples include test and evaluation of the software in its intended system to determine it meets design specifications. Software releases are production versions and configuration controlled, in a secured environment. Software deficiencies are rapidly resolved through support infrastructure.
MARKET	<input type="checkbox"/>	TRL 9: Technology System proven through successful operations	Application of the software in its final form and under usage conditions, such as those encountered in operational test, evaluation and reliability trials. In almost all case, this is the end of the last “bug fixing” aspects of the system development. Examples include using the system under operational conditions. Software releases are production versions and configuration controlled. Frequency and severity of software deficiencies are at a minimum.



WHAT IS A PATENTABILITY STUDY?

A patentability study consists of positioning an invention in relation to prior art with a view to checking whether it fulfils the following three criteria:

- a. Industrial applicability:** an invention is considered to be eligible for **industrial application** if its object can be made or used in any kind of industry, including agriculture*.
- b. Novelty:** an invention is considered to be **new** if it does not form part of the state of the art, that is everything that has been made available to the public before the date on which the patent application was filed through a written or oral description, a use or any other means*.
- c. Inventiveness:** an invention is considered to involve an **inventive activity** if, for a person skilled in the art (practitioner in the technical field of the invention), it does not result obviously from the state of the art*.

A usual definition of an invention is: a solution involving technical means to resolve a technical problem (there is no legal definition). Some inventions are excluded from patentability by law (for example: human cloning method, surgical treatment, etc.)

'Patentability' does not mean 'right to operate'. Analysis of the FTO - freedom to operate - will make it possible to check that the product or process that you wish to sell is not protected by third-party patents.

FOR WHAT?

- To improve the chances of obtaining a patent from an industrial property office.
- To define the maximum scope of protection covering the invention.
- To avoid incurring drafting and procedural costs for an invention that cannot be protected by patent.

FOR WHOM AND WHEN?

Any natural person or legal entity wishing to file a patent application should carry out this study before drafting their application.

LINKS

- [Memo Patent as a source of information](#)
- [Memo Prior art searching](#)
- [Memo Patent procedure](#)
- [Memo Freedom To Operate](#)
- [Guidelines on the examination conducted at the European Patent Office](#)
- [Guide for applicants - European Patent Office](#)

CONTACT

ADRE

✉ secretariat.adre@unamur.be

Give your invention the patent it deserves!

HOW?

A. INDUSTRIAL APPLICABILITY

Barring fairly exceptional cases, the industrial applicability criterion is considered to be fulfilled.

B. NOVELTY

Stage 1: Carry out a (click to see the definition below + [see memo Prior art searching](#)).

Stage 2: Select the most relevant documents.

Stage 3: Draw up a detailed list of the technical features of the invention.

Stage 4: Prepare a double-entry table: list the features of the invention (one per row) and the relevant documents (one per column). For each row, indicate whether or not the feature is present in the relevant documents.

Stage 5: If at least one document contains all the features, the invention is not new. Otherwise, the invention is new.

	D1	D2	D3
F1			
F2			
F3			
F4			
		NEW	NEW

C. INVENTIVENESS

If the invention is new, it is necessary to determine whether it is inventive. In Europe, inventive activity is often determined by applying the 'problem-solution' approach. This approach consists of four stages:

- determine the closest prior art,
- determine the technical differences between the invention and the closest prior art,
- establish the 'objective technical problem' to be solved and
- considering whether the invention, starting from the closest prior art and the objective technical problem, would have been obvious to a person skilled in the art.

EXAMPLES*

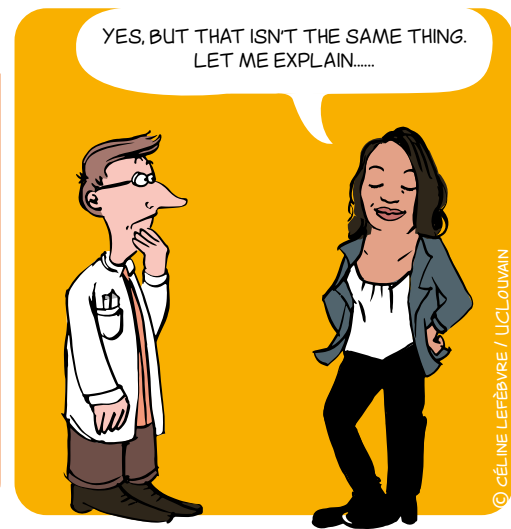
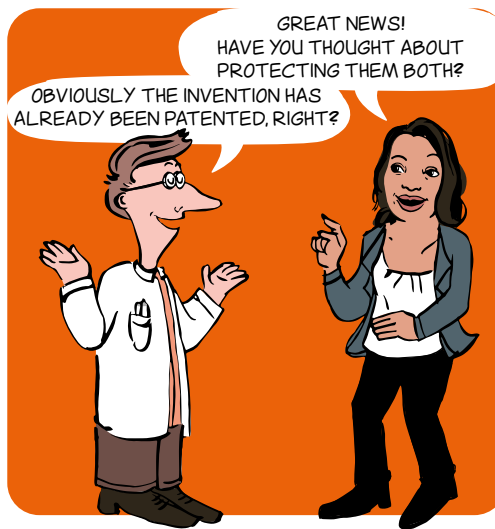
Click on one of the six inventions below and find out whether or not they are patentable.

* www.epo.org/law-practice/legal-texts/html/guidelines/e/g.htm

TRADEMARKS

for getting noticed and standing out!

1/2



WHEN?

- **Spin-off** being created
- **Project, laboratory or platform** that could lead to commercialization
- **Product or service** to be marketed
- **Software**
- Etc.

WHY?

A trademark makes it possible for you to:

- Distinguish your products and services from those of your **competitors**
- Become **well-known**
- Establish and protect your **reputation**
- Convey your **values**
- Create an **asset** of commercial value

WHAT IS A TRADEMARK?

It's a sign that can be represented. There are different types of trademark:

- **Word trademark:** one or more words, name of a product or service, brand's company name
- **Figurative trademark:** a logo
- **Semi-figurative trademark:** a word and a logo
- **Shape trademark:** shape or packaging of a product (3D)
- **Slogan**
- **Colour(s)**
- **Olfactory trademark:** an odour
- **Sound trademark:** sound, musical notes



Plan for the future and think carefully about the name and the graphic style! A trademark is registered for 10 years and is renewable indefinitely.

FIRST TO FILE - FIRST SERVED!

The first to protect a trademark on a given territory and within a market may object to its competitors using the same sign or a similar sign

TRADEMARKS

for getting noticed and standing out!

2/2

WHAT REQUIREMENTS ARE THERE?

- **Distinctiveness**
The sign must be neither descriptive nor generic
- **Legality**
The sign must not contain deceptive elements that may mislead the consumer, or be contrary to morality or public order
- **Availability**
The sign, must not already have been acquired as a trademark or have been earlier appropriated by a third party as its company name, trade name, domain name, etc.

HOW TO FILE A TRADEMARK

In order to make the most of your rights, consider:

- Contacting your **KTO**
- Checking the **availability** of the trademark in specific databases
- Choosing the **sign** or name to be registered
- Thinking about the marketing **strategy**
- Precisely choosing the products or services from a specific list: **classification**
- Choosing the route for **registering**:
national, European, international

ALSO...

The trademark may be cancelled for lack of use:

it is subject to a duty of use within five years.

A sign can become generic:

a brand can be a victim of its own success and become a common name.

e.g.: Aspirin, Thermos, Escalator, Trampoline, Linoleum, etc.

HOW MUCH DOES IT COST?

- **In Benelux**
Around €244 for 10 years for one class, €27 for the 2nd class and €81 per additional class.
- **For the European Union**
Around €850 for 10 years in one class, €50 for the second class, plus €150 per additional class from the third class onward.
- **Internationally**
www.wipo.int/madrid/fr/fees/calculator.jsp is a tool that can provide a quote.

Please note that these costs do not take account of trademark attorneys or lawyers' fees.

USEFUL LINKS

Trademarks databases

- <https://www.tmdn.org/tmview/welcome>
- <https://register.boip.int/bmbonline/intro/show.do>
- <http://www.wipo.int/romarin>

Classification of products and services

- <http://tmclass.tmdn.org/ec2>
- www.wipo.int/classifications

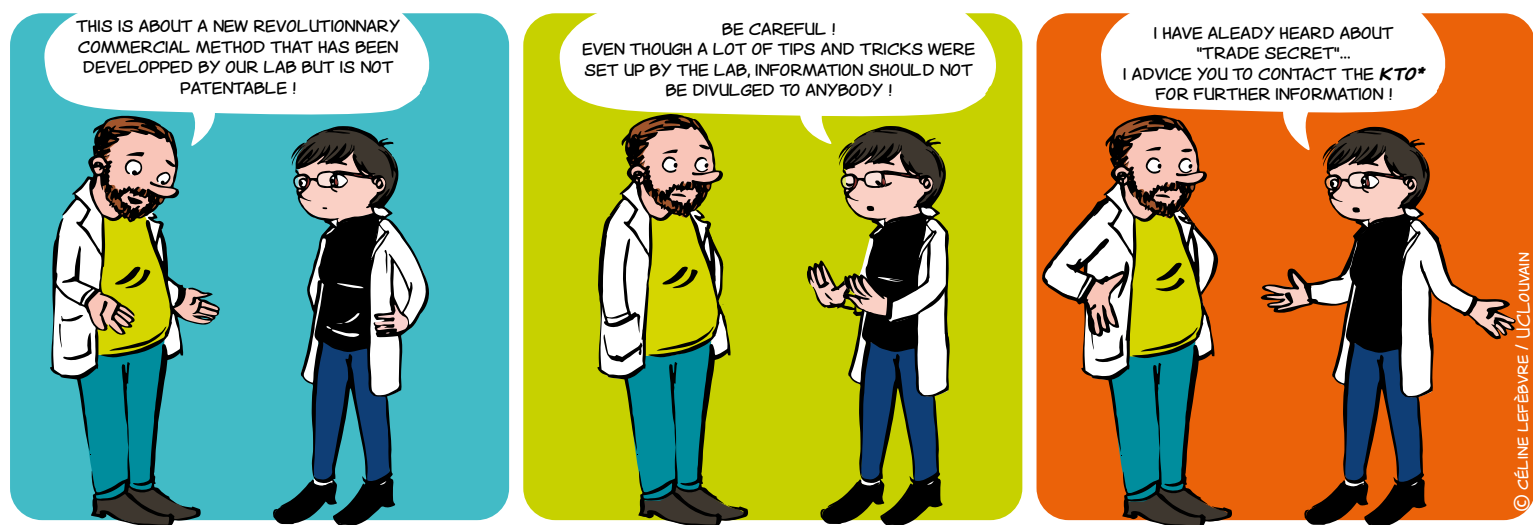
CONTACT

ADRE

✉ secretariat.adre@unamur.be

TRADE SECRET

When search results may not be protected by a patent or another intellectual property right 1/2



* Knowledge Transfer Office

WHAT IS TRADE SECRET?

A pretty broad concept that affects all researchers throughout their career because it can encompass all knowledge and information, of any type whatsoever, held by a natural or legal person.

Examples

- trade secret
- formulation
- recipe
- chemical compound

WHAT ARE THE CONDITIONS FOR PROTECTING TRADE SECRET?

The European legislator requires* :

- **"secret" character:** information is secretive when, in its entirety or in the exact configuration and assembly of its elements, it is not generally known to the persons forming part of the circles who normally deal with this kind of information or it is not easily accessible to them;
- **commercial value**, because of its secret nature;
- **measures taken by the person who has control of the information in order to keep the information secret.**

* [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](#) (not yet transposed into Belgian law at the time of writing this memo)

Your know-how is valuable!

WHY RESORT TO TRADE SECRET?

To offer protection, without any specific registration or renewal formality with an administration and without time limit, to research results or expertise that have a potential for the institution but:

- cannot be protected by an intellectual property right
- must be kept secret for strategic reasons

→ In all instances, contact your KTO to define the most suitable protection strategy.

TO REFLECT ON

The Coca-Cola Strategy

the Coca-Cola formula is the most famous example of a trade secret. Now written and stored in a safe, it is – according to legend – only known to two people in the world, who are not allowed to travel together.

The Michelin strategy:

An example of the difficulty in finding a balance between protection by trade secret or by patent is the one of Michelin.

Until recently, the group filed very few patents, for fear of disclosing its technologies to competitors.

Until it became a victim of espionage...

This demonstrates that the policy of an institution regarding commercial secret can evolve over time.

[More info](#)

A FEW THOUGHTS

- via the procedure specific to your institution, establish with your KTO a strategy to ensure that the secret character can be maintained in the medium and long term,
- do not reveal confidential information which is secret in your personal circle or in a professional framework (meeting, conference, poster, publication...),
- establish a system of information security,
- lock physical access to offices and labs,
- secure IT access,
- etc.

CONTACT

ADRE

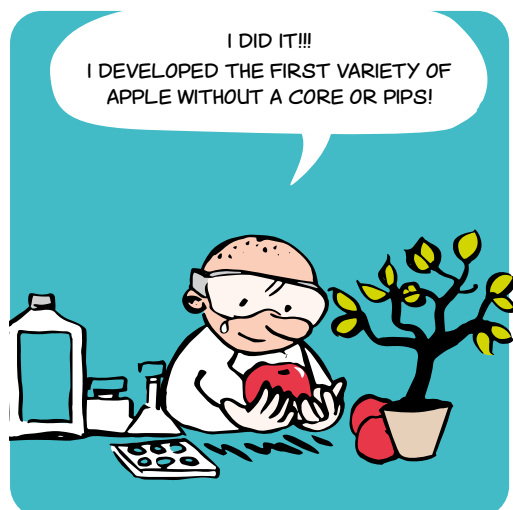
✉ secretariat.adre@unamur.be

[To find out more](#)

PLANT VARIETY RIGHTS

What about protecting your new vegetal varieties?

1/2



WHAT IS IT?

It's an intellectual property right that can be filed in order to protect the investments made (in time and money) for developing a new vegetal variety.

TO PROTECT WHAT?

The **varieties** of all types and the **botanical species**, including, in particular, their hybrids.

Examples

- Tulips of a new colour
- Potatoes that are resistant to frost
- Oranges that are richer in vitamin C
- Courgettes that last for longer

WHAT ARE THE REQUIREMENTS?

The breeder's right is only granted where the variety is:

- New
- Distinctness
- Uniform
- Stable
- Suitable denomination

TO WHOM DO THE RIGHTS BELONG?

Before taking any steps to protect a new plant variety or to grant any rights to this plant variety to third parties (which could otherwise be detrimental to its protection), check with your KTO by whom and in what context the variety has been developed:

- **by you in the exercise of your duties and/or your research at your institution and/or with the means made available by the latter:**
 - the rights probably belong to your institution.
- **by two or more persons:**
 - the right is jointly owned by these people or their beneficiaries or their respective successors, unless otherwise agreed.
- **by different people, independent from each other**
 - the rights are granted to the first person who applies for protection by making a filing in accordance with the legal requirements.
- **by a person who is not entitled**
 - the rights can be claimed through a legal proceeding.

PLANT VARIETY RIGHTS

What about protecting your new vegetal varieties?

2/2

WHY SHOULD YOU PROTECT THE VEGETAL VARIETY THAT YOU HAVE DEVELOPED?

- **To avoid others using your protected plant variety without permission.**

→ for example, the holder of the certificate (called the “**breeder**”) might **prohibit reproduction or multiplication, offer for sale, marketing, import and export** of the plant variety that he has developed, without his consent.

- **to write off the investment that you have made for the development of the new plant variety.**

→ the user might grant licenses to third parties (mainly to companies) in order for them to be legally able to commercially exploit the plant variety against a commercial fee to be negotiated.

HOW LONG DOES LEGAL PROTECTION LAST?

- **Belgian protection:**
 - > 30 years for trees, vines and potatoes
 - > 25 years for other plant species
- **Community protection** (for all other member countries of the European Union either together or on a per country basis):
 - > 30 years for trees and vines
 - > 25 years for other plant species

These time limits start to run as soon as the breeder's right has been granted.

HOW CAN YOU PROTECT THIS NEW PLANT VARIETY?

If the new plant variety rights belong to your institution, the KTO will provide you with support (technical, commercial or legal) for the negotiation of such license agreement and will proceed with the necessary administrative procedures.

WHO BEARS THE COSTS?

Your institution will bear all (or most) costs associated with the filing and the administrative requirements prescribed by law:

- if the new plant variety rights belong to it
- if it takes a positive decision to protect it

→ Contact your KTO who will ensure that appropriate steps are taken at the Office of Intellectual Property.

HOW MUCH DOES IT COST?

The filing and procedure fees varies depending on the class to which the variety belongs.

Fees grids

- [In Belgium](#)
- [At Community level](#)

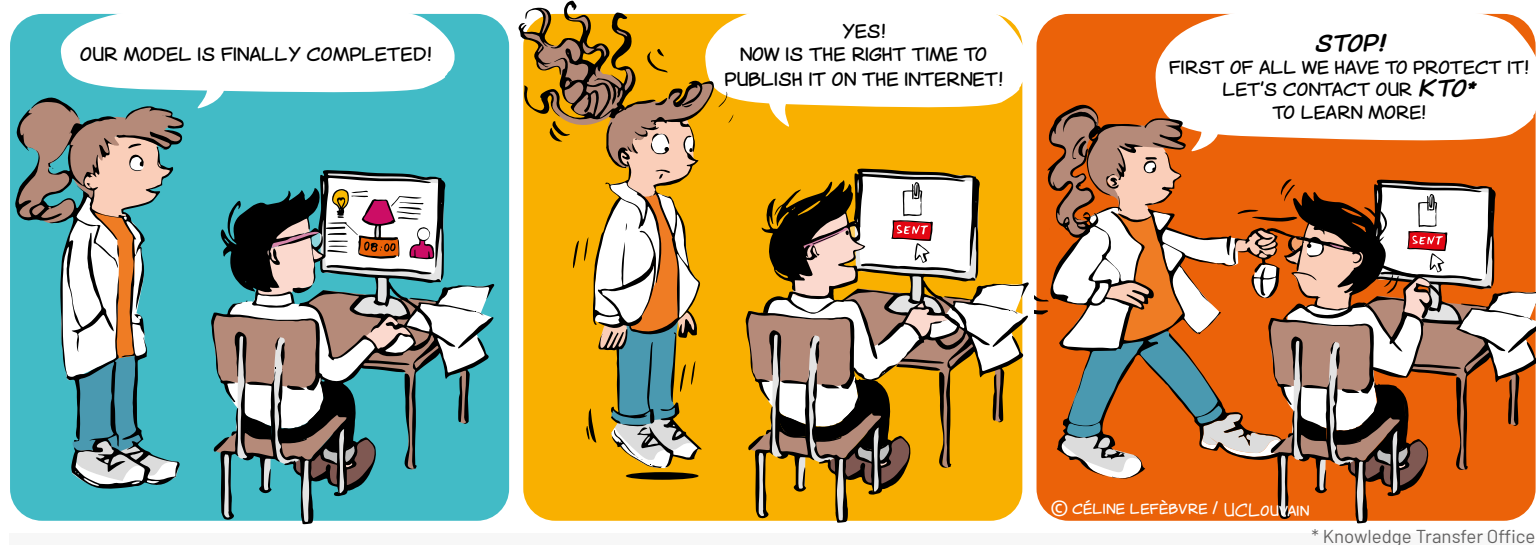
USEFUL LINKS

- [Verification of the novelty of the plant variety](#)
- [General information for the breeder](#)

CONTACT

ADRE

✉ secretariat.adre@unamur.be



* Knowledge Transfer Office

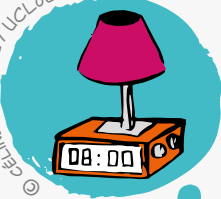
WHAT IS A DESIGN?

The design (2D and 3D) is a piece of intellectual property that protects the new aspect of an object.

The appearance of a product or a part of a product can be considered as a design.

The appearance of a product is conferred on it, in particular, by the characteristics of the lines, outlines, colours, shape, texture or materials of the product itself or its decoration.

© CÉLINE LEFÈVRE / UCLouvain



WHY FILE?

- ➔ To ensure creations are effectively protected
- ➔ To stand out from the competition
- ➔ To increase the economic value (registration results in value added)
- ➔ To have a future development tool
- ➔ To increase awareness

WHAT ARE THE CONDITIONS?

To be valid, a design must meet several conditions:

➔ Novelty

The requirement is not to publish the design in a catalogue, in a newspaper article or on the internet, and that this design is not exhibited at a fair or any other public place before the filing, otherwise the design falls into the public domain.

BE CAREFUL!

The publication of a design on the internet means that the design has been disclosed worldwide.

➔ Individual character

The informed user must not have the feeling of "déjà vu".

➔ It must not be contrary to public order or good morals

The appearance of a product or its aesthetic appearance can be protected! Think about it!

WHAT IS THE PROCEDURE?

→ Above all, **check novelty** in the databases of the offices mentioned below with the help of your KTO

→ Then **register/file** the design with:

- [The Benelux Office of Intellectual Property \(BOIP\)](#)

For protection in Benelux (Benelux designs)

- [EUIPO](#)

For protection in all Member States of the EU
(Community design)

- [WIPO](#)

For international filing aimed at specific countries of interest to be designated among the list of countries having acceded to the system (so-called "The Hague System")

- [National Office](#)

For national filing, in countries that are not members of the international design system, for protection that is limited territorially to this specific territory (a search must be carried out based on the country of interest)

ONE NOTABLE EXCEPTION

Unregistered Community designs are protected anyway in the European Union **against any identical reproduction**, without any requirement of filing, for 3 years from the date upon which they were first available to the public within the territory of the European Union.

However, the difference with filed design is that the proof required to establish a copy is much more restrictive and difficult to provide...

[MORE INFO](#)

FOR HOW LONG?

In the majority of cases:

- 5 years from the date of the filing, renewable 4 times successively up to a maximum of 25 years.
- a design that is the subject of filing cannot be changed during the registration period nor on the occasion of its renewal.

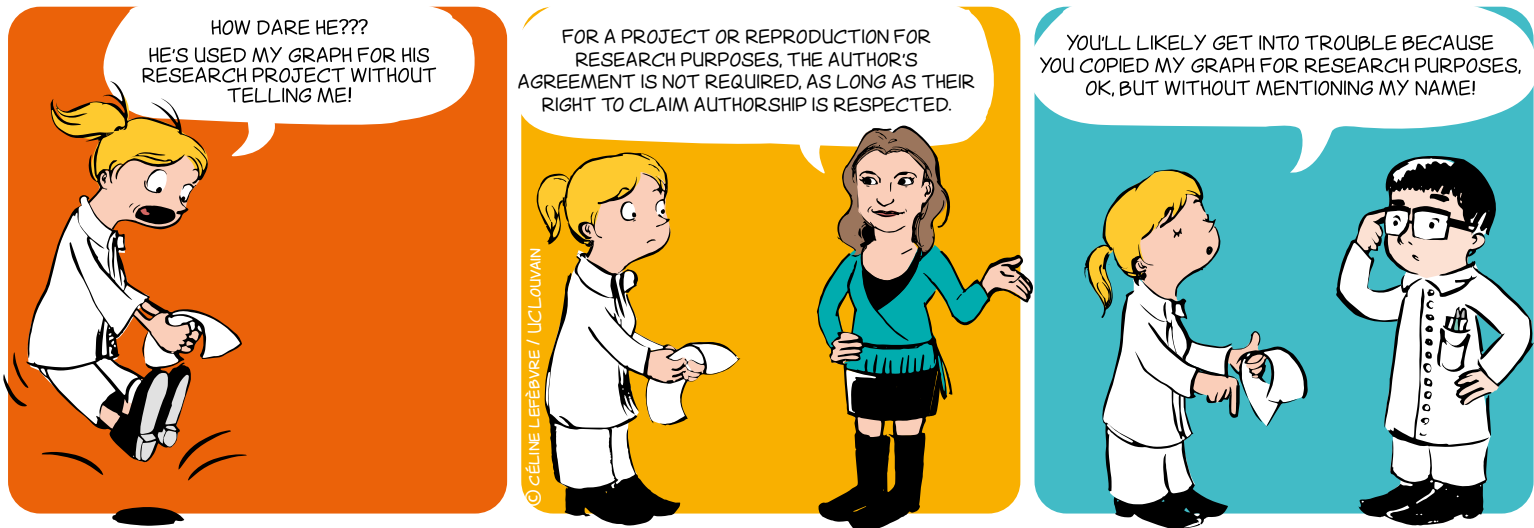
WHEN TO FILE?

- At any time (if the designs have not yet been disclosed)
 - Soon after the creation of the design or model
- Contact your KTO as soon as possible!

CONTACT

ADRE

✉ secretariat.adre@unamur.be



WHAT ARE THE CONDITIONS FOR COPYRIGHT PROTECTION?

→ Originality

The original work must reflect the author's personality and be the fruit of the author's intellectual effort.

→ Format

The original work must be materialised, whatever the medium.

The following in particular are covered by copyright: books, scientific papers, correspondence, software, databases, graphs, drawings, plans, photographs, paintings, sculptures, etc.

Copyright protection is acquired automatically when the original work is generated and does not depend on the completion of any specific formalities.

It continues to apply for 70 years after the author's death, after which period it falls into the public domain.

WHO IS THE AUTHOR, THE OWNER OF THE COPYRIGHT?

The original owner of the copyright is the physical person who created the work.

He or she may assign his or her copyright (economic rights) or grant a licence to any third party (an editor for example) wishing to exploit the work.

The law provides for cases where transfer to a third party is presumed. So for software, the employer is presumed, unless there is evidence to the contrary, to be the owner of the copyright on software created by its employees in the course of their duties.



WHAT ARE THE RIGHTS OF THE AUTHOR?

→ Moral rights

Right of disclosure, right to claim authorship, right of integrity. They are intended to protect the integrity of the work and the author's reputation. Being closely linked to the author's personality, they are inalienable rights and cannot be assigned to a third party.

→ Economic rights

Right of reproduction and communication to the public, right of adaptation and translation, etc.

They allow dissemination and economic exploitation of the work. These are exclusive rights of the copyright owner.

This means that the third parties are prohibited from using the work without the copyright owner's approval through a licence or assignment.

Copyright covers the FORM in which an idea is expressed (a text or a drawing for example), but not the IDEA itself!

EXCEPTIONS

The law does however provide for certain exceptions where use of a work without the author's agreement is permitted. Two of these apply more particularly to scientific publications.

- The exception regarding quotation allows copying of a short extract of a work for the purposes of review, teaching or scientific work provided that the source and author's name are acknowledged.
- The exception regarding use for the purposes of teaching and research allows copying of all or part of a work, for the purposes of illustration for teaching or research, provided that there is no commercial purpose, no conflict with normal exploitation of the work by the author and provided that the source and author's name are acknowledged.

CONTACT

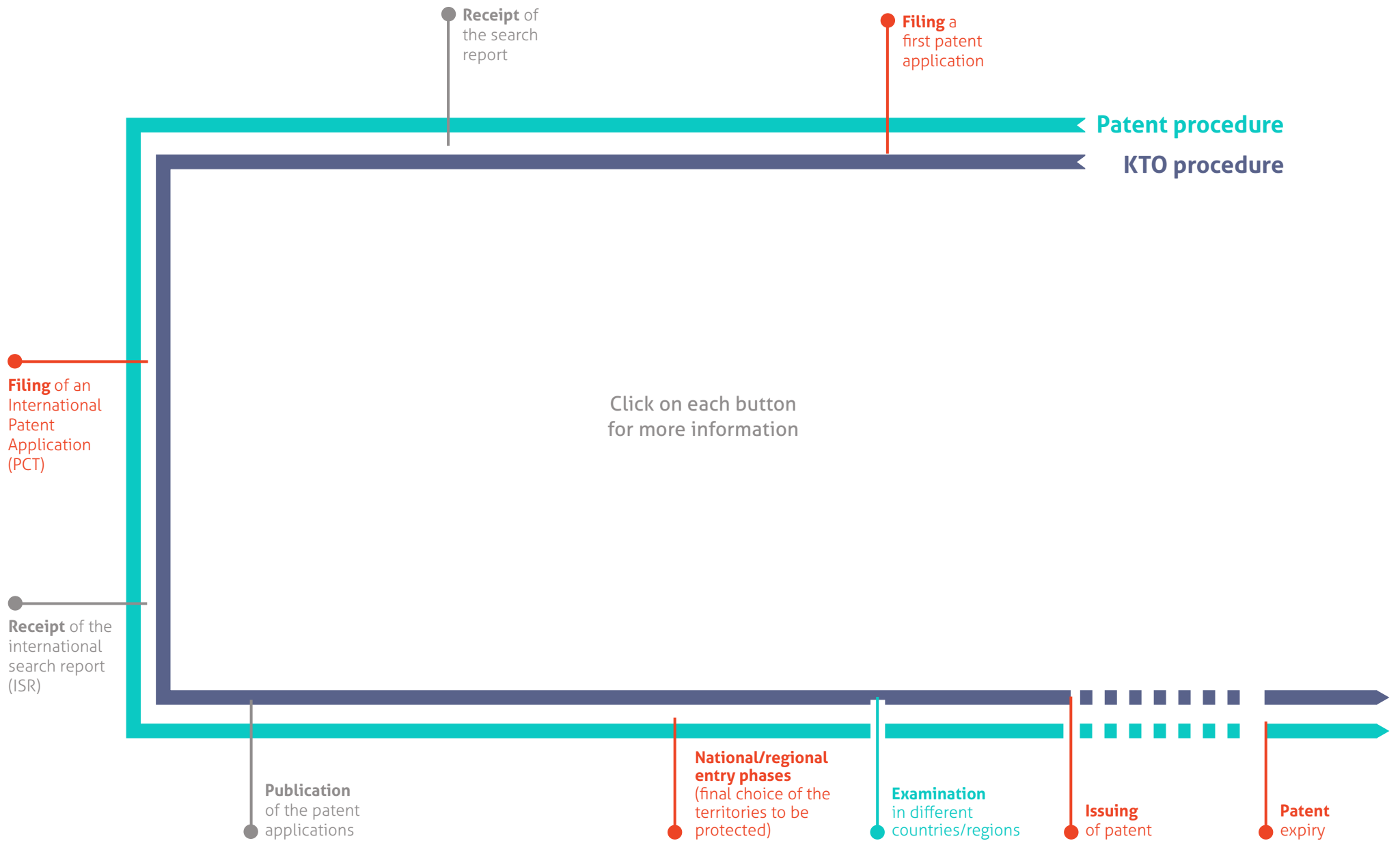
ADRE

✉ secretariat.adre@unamur.be

PATENT

What happens when a patent application is filed?

Illustration of a typical procedure. Variations may be considered by your KTO.



TRANSFER OR COLLABORATION OPPORTUNITIES

to offer visibility to your research

1/2



SPECIFICALLY

A transfer or collaboration opportunity is a form, usually written in English, containing:

- A brief description of the **research results**
- The benefits and advantages of the results compared to existing solutions
- The targeted areas of application
- The intellectual property status
- The state of maturation of the results (**TRL scale**)
- The type of **partnership** sought
- The keywords
- The laboratory's/institution's references
- The KTO's contact details

WHY?

- To promote and/or transfer research results, whether protected or not, from Universities and Higher Education Institutions to various partners and potential users.
- To enable the Society (companies, associations, research centres, etc.) to benefit from the advances in research.

ADD VALUE

Bringing value by transferring, selling or pursuing research through new academic and/or industrial collaboration.

TRL SCALE (TECHNOLOGY READINESS LEVEL)

The TRL scale defines nine levels of maturity for a technology, from the idea to the market.

It provides a common frame of reference for defining the state of maturity of a project and specifies the technical developments accomplished at each level.

TYPES OF PARTNERSHIP

Licensing, transfer, academic collaboration, industrial collaboration, knowledge transfer, etc.

TRANSFER OR COLLABORATION OPPORTUNITIES

to offer visibility to your research

2/2

WHO WRITES IT UP AND FOR WHOM?

The researcher writes up the transfer opportunity or the collaboration opportunity together with his/her KTO, for the following recipients:

- Commercial and non-commercial companies
- Research centres
- Associative sector
- End-users
- Business operators



WHEN?

- Always after identifying results to which value can be added.
- According to the strategy for protecting intellectual property.

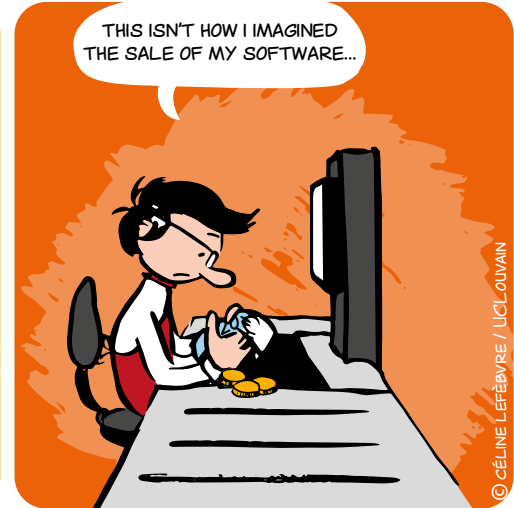
The timing of the writing and publication of the transfer opportunity or the collaboration opportunity can thus vary and is defined in consultation with the KTO.

CONTACT

ADRE

✉ secretariat.adre@unamur.be

VALUATION OF COMPUTER SOFTWARE



BEFORE ANYTHING ELSE...

Any transfer involving code requires the origin and the status of the software components to be established and any components that may require a rewrite to be identified. The use of some external libraries can, for example, compromise the marketing scheme being considered.

This can also have a significant impact on
THE DISTRIBUTION OF THE SOFTWARE

Key points to consider in developing a marketing strategy:

1. REVENUE:

free, freemium, fixed payment, etc.

2. ARCHITECTURE:

software, mobile app, cloud/SaaS service, etc.

3. INTELLECTUAL PROPERTY:

patent protection, business commercial secrecy, open source, etc.

4. CHANNEL:

third-party company, spin-off, service delivery, online platform, etc.

5. PRODUCT

software, consultancy, hardware/software hybrid solution

6. REFERRED RETURN

economic revenue, visibility, societal impact, etc.

A well thought-out (software) marketing strategy increases the impact and the visibility of your research!

WHAT BUSINESS MODEL SHOULD YOU CHOOSE?

1. The quality and relevance of a [Business Model](#)

- **is measured by its relevance to the needs of the market**
- **requires analysis of the expectations of the end users**
- **must rely on the strengths of the developed solution**

The **SOFTWARE DISCLOSURE FORM**

allows a reflection on these three elements

2. Examples of business model

Proprietary	<i>The creator sets the price of his product</i>	Windows
Dual Licencing	<i>Paid version supported by a free community version</i>	MySQL
Value-added service	<i>Sale of intellectual services in all their forms: advice, expertise, package development, in-house, TMA</i>	Odoo
In-app purchases	<i>Free application with additional paid features</i>	Candy Crush
Software as a service (SaaS)	<i>Application available online via subscription</i>	Office365
Subscription	<i>Pricing based on the volume of data exchanged/stored</i>	Amazon Cloud

WHAT METHODS CAN YOU USE TO SET THE PRICE?

Pricing has to rely on the usual methods, and in particular a market study, a comparative analysis of the competition... There is no universal method for estimating the value of a piece of software. It is also common to combine several evaluation criteria, which are not necessarily specific to the software.

It is also usual practice to base it on the following criteria:

- **NPV (Net Present Value)**

This allows a calculation of the value of a technology based on a financial plan, which requires some knowledge of the market.

- **benchmark**

This allows a royalty rate to be offered based on the rates usually observed in similar transactions. Alternatively, you can also set a royalty rate based on the percentage of the budget allocated to R&D in the company or sector under review.

- **Replication cost**

An estimation of the number of men multiplied by the months required for a competitor to redevelop the technology from scratch.

Compensation mechanisms are varied:

- **royalties**
- **up-front**
- **milestones**
- **collaboration prospects**
- **etc.**

TOOLS

The **COCOMO II method**

estimates the value of software based on the development budget calculated from the number of lines of code (replication cost), from which **technical debt** is usually drawn.

CONTACT

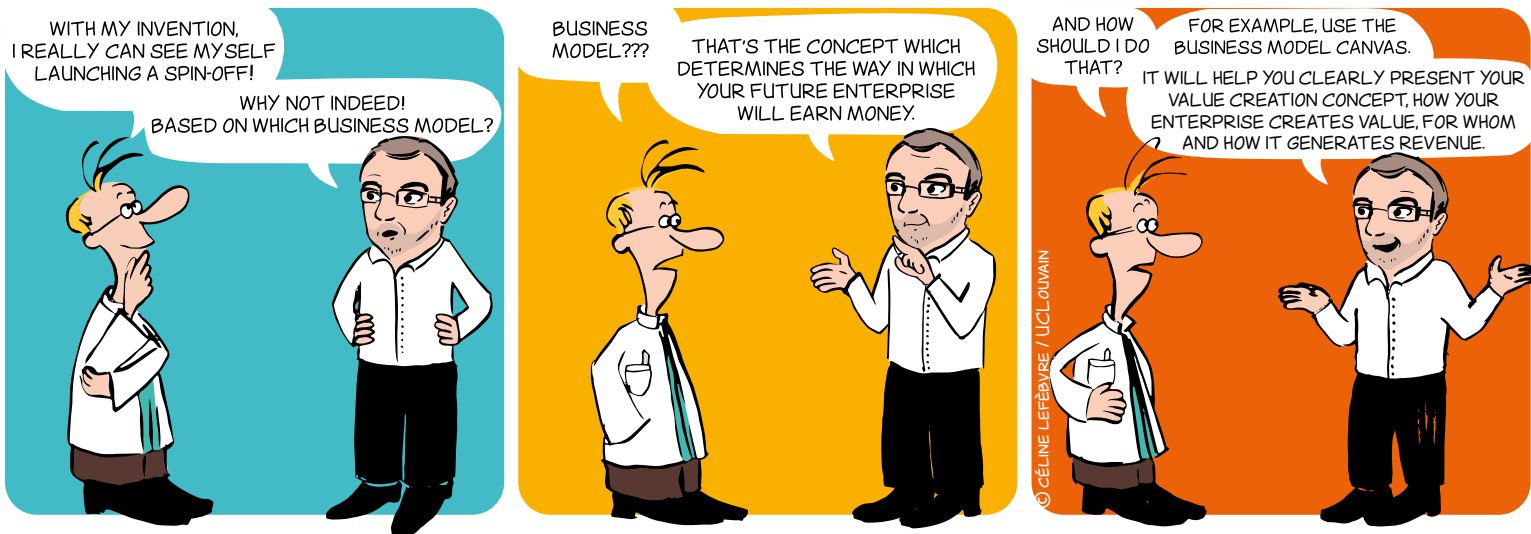
ADRE

✉ secretariat.adre@unamur.be

THE BUSINESS MODEL CANVAS

A strategic management and entrepreneurial tool

1/2



A LITTLE BIT OF HISTORY

In 2004, Alexander Osterwalder completed a Ph.D. thesis on business models with Prof. Yves Pigneur (HEC Lausanne, Switzerland).

The Business Model Canvas was born!

Two years later the approach outlined in his thesis began to be implemented around the world.

To accompany the method, Alexander Osterwalder and Yves Pigneur published an original and innovative book in 2009, which has sold a million copies in 30 languages: the Business Model Generation (2009, ISBN 978-2-8399-0580-0).

WHAT?

The Business Model Canvas - often referred by the acronym BMC - is a visual representation that facilitates iterative development (or adaptation) of new (or existing) business models. It is composed of nine blocks which helps an entrepreneur to build a value-added proposal to customers and understand the financial in- and outflows involved in his/her business.

WHY?

The BMC is designed for building business models through brainstorming sessions.

It provides a holistic view of the business as a whole and gives people a shared language, leading to better strategic conversations and better ideas on the table.

CONTACT

ADRE

✉ secretariat.adre@unamur.be

**Describe, design, challenge, invent
and pivot your business model!**

THE BUSINESS MODEL CANVAS

A strategic management and entrepreneurial tool

2/2

The Business Model Canvas

Designed for: _____ Designed by: _____ Date: _____ Version: _____

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
	Key Resources		Channels	
Cost Structure			Revenue Streams	

© Strategyzer AG. This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/> or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, USA.

DESIGNED BY: Strategyzer AG
The makers of Business Model Generation and Strategyzer

Strategyzer
strategyzer.com

VALUE PROPOSITION

What need/problem does your project address? What is your added value? What are the strong points compared to the competition?

KEY PARTNERS

Do you need external providers to promote your product/service, to complete your service offer etc.?

KEY ACTIVITIES

Which activities are essential to allow your economic model to work (production, supply chain, software development, network, platform, problems solving etc.)?

KEY RESOURCES

What resources are essential to the functioning of your business: premises, equipment, machinery, financial resources, human resources, software, brands etc.?

COST STRUCTURE

What are the different types of costs related to the business model (cost logic, value logic, fixed costs, variable costs, economies of scale etc.)?

CUSTOMER SEGMENTS

For each product and/or service, what groups of individuals or organizations do you want to reach? Are you targeting mass markets, niche markets, segmented markets or others?

CUSTOMER RELATIONSHIPS

What are the types of relationships established with each customer segment based on strategic objectives: to acquire, retain, upsell (personal assistance, self-service, automated services, communities, co-creation)?

CHANNELS

- How will you promote/sell your product and/or service?
- How will your customers assess your product and/or service?
- What after-sales service will you provide?

REVENUE STREAMS

What kind of income will be generated from each customer segment (from sale, subscription, rental/loan, licencing, brokerage, advertising etc.)?

THE SOCIAL BUSINESS MODEL CANVAS

To structure ideas and actions in a reasonable manner!

1/2



WHAT IS A SOCIAL ENTERPRISE?¹

A social enterprise is a business

- the main objective of which is to **have a social impact** rather than generating profit for its owners or partners,
- which predominantly **uses its surplus** for these social objectives,
- which is **managed** by a social entrepreneur **in a responsible, transparent and innovative manner**, including combining employees, clients and stakeholders affected by its activities.

¹ Initiative for social entrepreneurship from the European Commission, Ref. Ares(2015)5946494, 18.12.2015, European Commission

CONTACT

ADRE

✉ secretariat.adre@unamur.be

WHY CHOOSE A SOCIAL BUSINESS MODEL CANVAS?

Submitting to this allows the social entrepreneur:

- to anticipate the social impact of its activities,
- to measure its financial viability,
- to best predict the challenges he will face.

IN PRACTICAL TERMS

The SOCIAL business model canvas allows the:

- understanding, design, articulation and discussion of the heart of the concept;
- testing and development of prototypes to see if it is possible to passionately believe the impact of the project and its economic viability.

The SOCIAL Business Model Canvas
takes into account the special characteristics
of social enterprises!

THE SOCIAL BUSINESS MODEL CANVAS

To structure ideas and actions in a reasonable manner!

2/2

WHAT IS THE DIFFERENCE WITH THE INITIAL TOOL?

Marketing outside the classical mechanisms of the market implies thinking more broadly about the blocks of the Business Model Canvas. For example:

VALUE PROPOSITION

The **value proposition** must go beyond the simple offer of a product or service. More broadly, it must consider the improvements generated by the activity (environmental, social cohesion, etc.).

KEY PARTNERS

In the same vein, the target of **beneficiaries** must often be extended to those who will benefit from the created impact (consumers but also users, citizens, public authorities, suppliers, etc.).

KEY RESOURCES

The **key resources** that will enable the company to function and achieve its goals also need to be widely understood (partnerships, collaborations, volunteering, subsidies, etc.).

SURPLUS

One special characteristic of the SOCIAL business model canvas is to add a block involving a definition of the management of **surplus** generated by the activity (captured value).

It is then necessary to consider set-aside, distribution of dividends, drawback or repayments, investment in another project, etc.

Social Business Model Canvas			TANDEMIC	
Key Resources <i>What resources will you need to run your activities? People, finance, access?</i>	Key Activities <i>What programme and non-programme activities will your organisation be carrying out?</i>	Type of Intervention ② <i>What is the format of your intervention? Is it a workshop? A service? A product?</i>	Segments ① <i>Who benefits from your intervention?</i> Beneficiary Customer ④	Value Proposition ③ Beneficiary Value Proposition Impact Measures <i>How will you show that you are creating social impact?</i> Customer Value Proposition ⑤ <i>What do your customers want to get out of this initiative?</i>
Partners + Key Stakeholders <i>Who are the essential groups you will need to involve to deliver your programme? Do you need special access or permissions?</i>		Channels ⑥ <i>How are you reaching your users and customers?</i>	Revenue <i>Break down your revenue sources by %</i>	
Cost Structure <i>What are your biggest expenditure areas? How do they change as you scale up?</i>		Surplus <i>Where do you plan to invest your profits?</i>		

Inspired by The Business Model Canvas

MORE INFO

KNOWLEDGE TRANSFER AND ITS PROCESS

Checklist for the researcher

ADRE

secretariat.adre@unamur.be

www.unamur.be

With the support of

