# 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)



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With the support of







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.

<sup>1</sup>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**  $\rightarrow$  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
- i Click and access an explanatory sheet
- i 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!

Important note: many links allow you to move around inside this quide.

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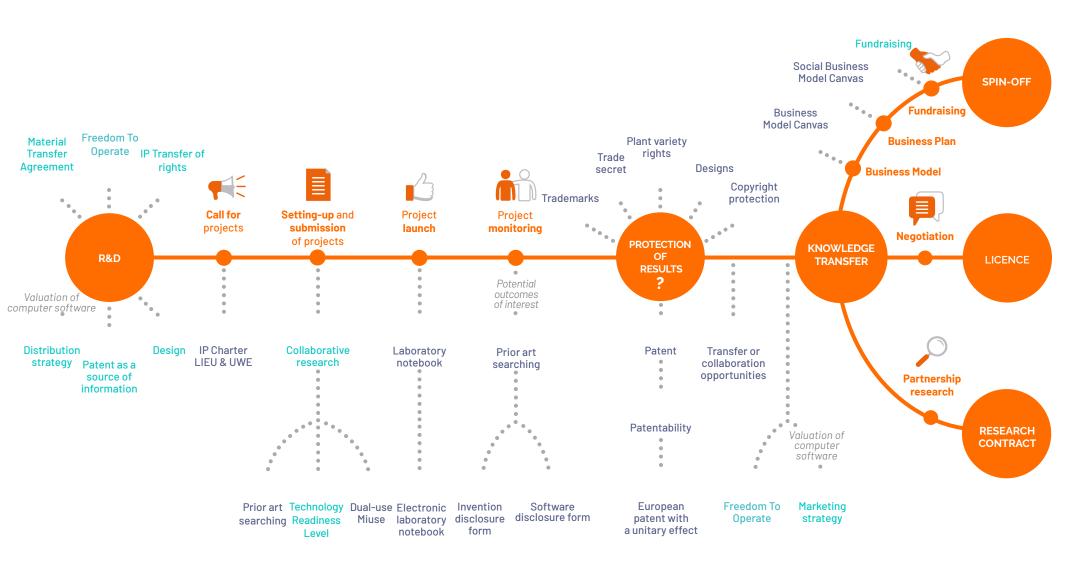
## **USER GUIDE**

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# 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.





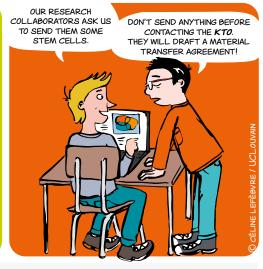




MTA - Material Transfer Agreement







### 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

BACTERIA STRAINS •
HYBRIDOMAS • ANTIBODIES
• CELL LINES

PROTOTYPES ·
DEMONSTRATORS ·
MOLECULES · POLYMERS

SOFTWARE · SOURCE CODE

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!

### 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**

ULB - KTO

ulbkto@ulb.be





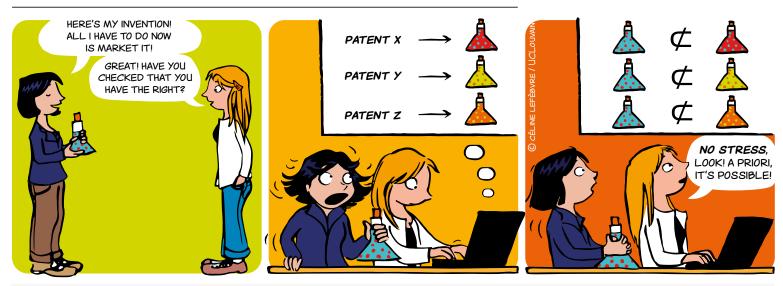






### FREEDOM TO OPERATE

(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?**

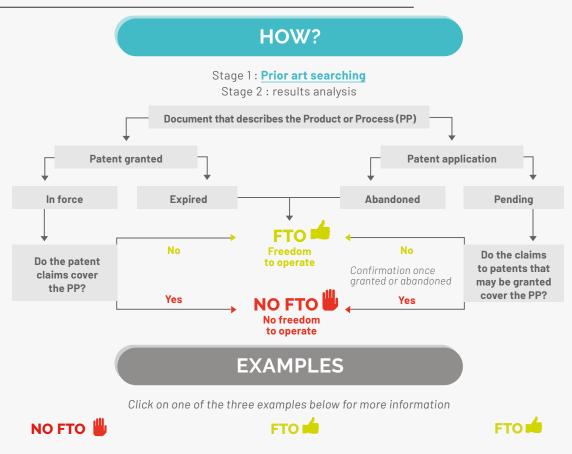
- To make sure that you are free to operate a product or process.
- To check that the product or process you wish to develop/ market is not protected by a third-party patent and is therefore not a counterfeit.
- To avoid investing in research for which no product can be marketed.
- To reassure investors.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



My freedom to operate stops where that of others starts!

### FREEDOM TO OPERATE

(FTO) 2/2



### **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

# 

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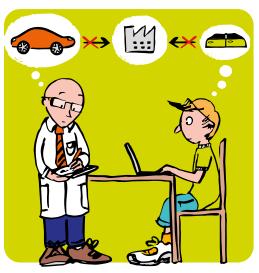


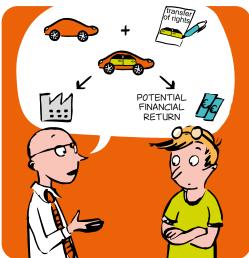


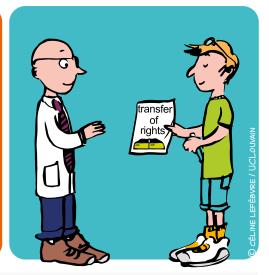




### Student dissertation and project







### **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?

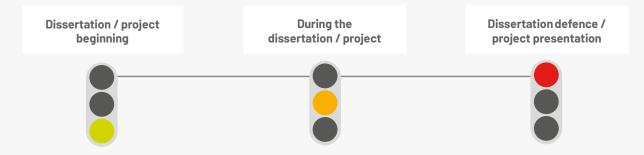
All individuals who are not subject to the IP regulations of the transferee, such as students (except the students from UMONS), scientific collaborators and guest researchers.



### Student dissertation and project

### WHEN?

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



### **ADVANTAGES FOR** THE TRANSFEREE



### **ADVANTAGES FOR** THE TRANSFEROR

- 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.

- 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

**ULB-KTO** 



ulbkto@ulb.be









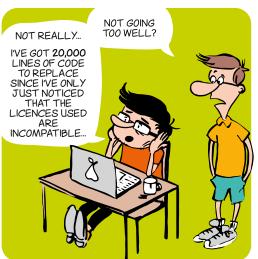


### VALUATION OF COMPUTER SOFTWARE

### 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:



In case of joint development, part of the code belongs to a **PARTNER**. This partner has the right to veto any project that includes the software, be in 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 licencee 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 developping the software, and choose to integrate only open source code with a compatible licence (see chart).

### **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**

Rights holder is the only one authorized to manage the intellectual property rights. In Belgium, the law provides that software belongs by default to the employer (University).

- Copyright: protects the form (source code) and original graphic interface.
- Patent: protects functionality (~algorithm) of software.
- Trademark and domain name: protects reputation.
- Confidentiality agreement: necessary for collaborating on proprietary software.
- 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

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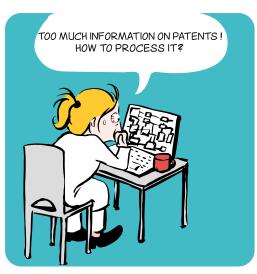




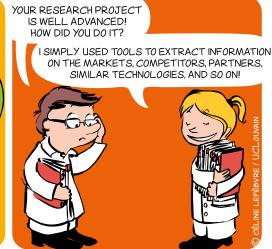










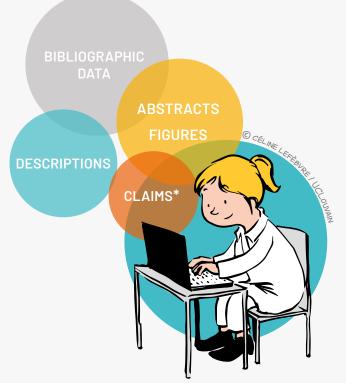


### WHY?

- → **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? Scope of the search Search in patent databases Structured data Classification codes, references, etc. **Unstructured data** Tools for extracting Documents: abstracts, and viewing data descriptions, etc. **Images Gathering** information Sets of patents (applications or granted) Statistical analyses, documents, etc. .asis · battery combustion • connector • conve. # · gear · hub · hybrid · n (19) United States (12) Patent Application Publicati BEUTNER pedal · phase · pole · port (54) BICYCLE, IN PARTICULAR MOUNTAIN BIKE, WITH AN ELECTRICAL DRIVE \* • station • stator sicant: Winora-Staiger GmbH

### **TOOLS**

### **Patent databases**

PatentScope\*

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

Esp@cenet\*

http://worldwide.espacenet.com

**Global Patent Index** 

https://data.epo.org/expert-services/index.html

**Google Patents** 

https://patents.google.com

→ Lens

https://www.lens.org/

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

### **CONTACT**

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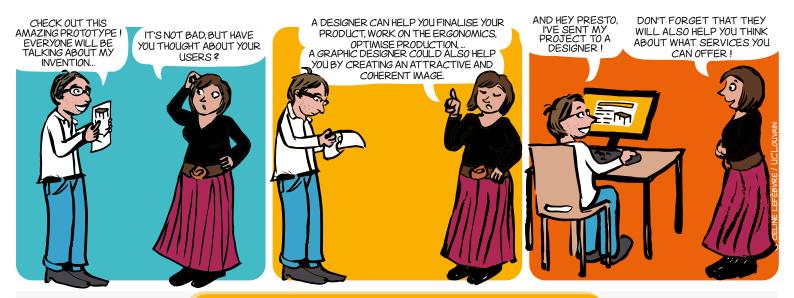












### WHAT IS "DESIGN"?

"Design" is a discipline that is characterised by a set of methods, questions and techniques which provide a complementary perspective to technical and marketing approaches.

Design is different from <u>designs</u>, which are means of protecting the intellectual property of your product. These protections are complementary aspects that must also be taken into account when designing the object!

The aim of design is to develop **products or services that best meet users' needs**. Improved design could also address problems not identified in the initial stages of development.

### WHEN TO CALL IN A DESIGNER

A design makes products and/or services attractive and easy to use by giving them a consistent identity. This results in an optimal user experience and better business performance.

Far from being confined to the final aesthetic touch at the end of a project, **collaboration with a designer can take** place at every step of a project's development.

### The designer can help to:

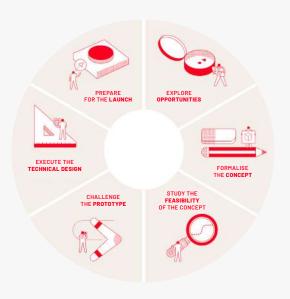
- → Explore the avenues to be investigated,
- → Shape a concept under consideration,
- → Ensure the feasibility of a concept,
- → Challenge a functional prototype to make it more complete,
- → Consider the completed prototype and think about producing it on a larger scale,
- → Prepare the market launch, and even learn from customer feedback to re-explore new areas for improvement.

An appropriate and professional design contributes to the creation of an ideal product for the user thanks to:

- → Its ease of use,
- → Its intuitiveness.
- → Its attractiveness.

### This is reflected in overall business performance:

→ Both production and use are improved, and sales are boosted.



### **HOW TO FIND A DESIGNER**

In Wallonia, Wallonie Design is the organisation that acts as a link between project leaders and designers.

For each stage, Wallonie Design concretely identifies:

- → What a designer can do to help you develop your project,
- → What outcomes you can expect.

Wallonie Design will help you to specify your needs and will give you advice, useful contacts and a selection of design agencies tailored to your expectations.



### A complete design for complete success!

### **COST**

Funding support is available. Contact your KTO!

### **USEFUL LINKS**

www.walloniedesign.be www.disc-design.be

### **LINKS**

Patent

### CONTACT

**ULB - KTO** 



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### **WHAT IS IT?**

\* <u>Document prepared jointly by the LIEU Network (Llaison</u> 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.

### 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

### 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

### 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.

# THE FINDINGS

**USAGE RIGHTS OVER** 

- 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

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













### Working together in the best possible conditions!







### WHY CONDUCT COLLABORATIVE RESEARCH?

- → To encourage cross-sector and interdisciplinary research
- → To ensure that the research project is rooted in the realities of society and the economy
- > To reach out to users and meet their needs
- → **To pool** resources (data, equipment, samples)
- → To combine the know-how and expertise of each partner
- → To stimulate co-creation and collective intelligence
- → To maximise the impact and transferability of research

### **KEY POINTS TO CONSIDER:**

### → Complementarity:

It is vital there is a complementarity of expertise within a research team. Your KTO can help you think about how your expertise can help you fit into a team and help you to choose and identify your potential partners.

### → Collaboration agreements and intellectual property:

Collaboration agreements must formalise the partnership and define the roles and actions of each partner, the resources available and the timetable for achieving the desired objectives. The ownership of findings and their confidentiality must also be defined in a contractual agreement. Your KTO will help you to negotiate these agreements before the start of the project to ensure it runs smoothly and that the partners are in agreement.

### → Common language and timeframes:

Before and during the project, it is important to develop a common language and to communicate each other's expectations, particularly with regard to timeframes, which may differ between the field and the research team. This helps to develop a relationship of trust that is essential to the smooth running of the project.

### → When to involve the partner:

The partner(s) can be involved at any stage, subject to their relevance to the project. However, it is often preferable to bring in certain skills early in the project.

### Working together in the best possible conditions!

### WITH WHOM?



### **ACADEMIC**

- → Researchers at the institution or from an external laboratory or research centre
- → To develop multidisciplinary research



### **COMPANIES**

- → Both Economic and social
- → To capitalise on research and develop innovation and apply it to the socio-economic world



### **CITIZENS AND USER GROUPS**

- → Citizen groups and collectives
- → To co-construct and test innovation in order to optimise its efficiency



### **EXTERNAL PARTNERS**

- → Government authorities and public services
- → To raise awareness among public funding bodies and to indirectly shape upstream policies

### **USEFUL LINKS**

**Transfer or Collaboration Opportunities** 

### **CONTACT**

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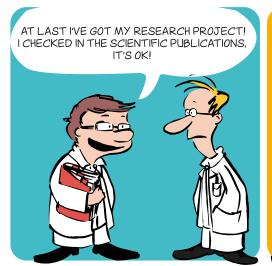




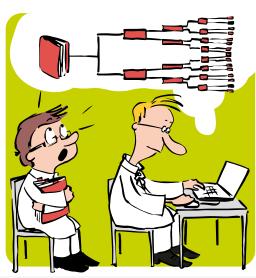












### WHY?

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.
- → Esp@cenet

http://worldwide.espacenet.com

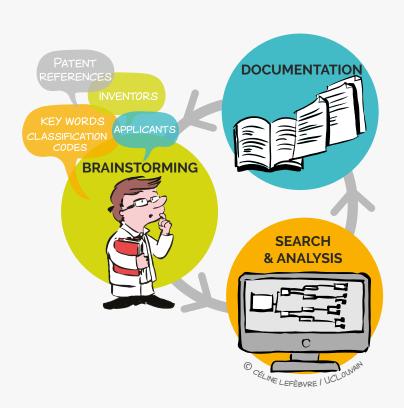
→ Google Patents

https://patents.google.com

→ PatentScope

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

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



### **CONTACT**

ULB - KTO







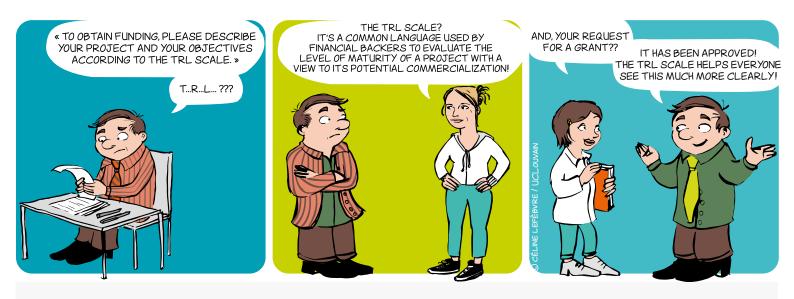








A scale of maturity and a tool to help innovate and collaborate



### 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





















**EXPLORATION** 

**MARKET ORIENTATION** 

**EXPLOITATION** 

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

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

### 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 le vels 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** 



Product suitable for different applications and subject to competitive production

**MARKETED PRODUCT** 



Complete, clearly qualified commercial product is available

MANUFACTURED **PRODUCT** 



Product demo approved in an operational environment

**PRODUCT DEMO** 



Product demo approved in a meaningful environment performing in a similar way to expectations

**PROTOYPE PRODUCT** 



Prototype approved for all of its critical functions in a meaningful environment

**INTEGRATIVE PROTOTYPE** 



Prototype incorporating the solution approved in the laboratory

**FEASIBILITY** 



Proof of concept for the solution/application and feasibility study



Concept of the solution and/or the application formulated



Basic principles observed and described

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

### CONTACT

**ULB-KTO** 



ulbkto@ulb.be





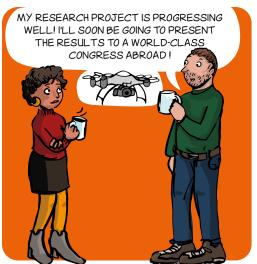








Think about the potential risks of your research being hijacked by a third party!







### 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).

### 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 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 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, knowhow) 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!

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

### 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.

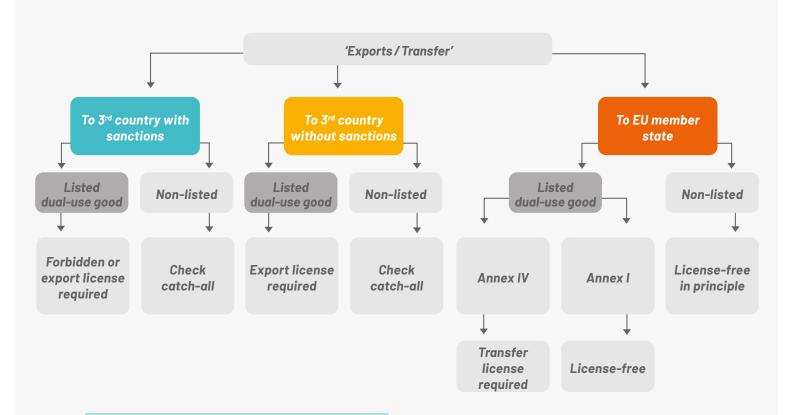
# WHAT ARE THE CONSEQUENCES IF WE EXPORT WITHOUT A LICENCE?

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

**ULB-KTO** 

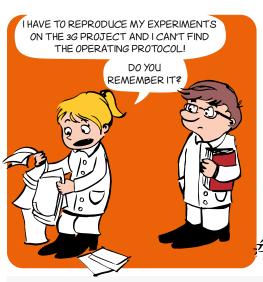
w ulbkto@ulb.be







Your research down in black and white!







### 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 LIEU NETWORK LABORATORY NOTEBOOK



This lab notebook has been designed by the LiEU Network and is common to all the Higher Education Institutions and Universities in the Fédération Wallonie-Bruxelles

Notebook with unique identification

Notebook with numbered pages and no loose sheets of paper

### **HOW TO GET IT**

**ULB:** delphine.stordeur@ulb.be

### **CONTACT**

ULB - KTO



ulbkto@ulb.be





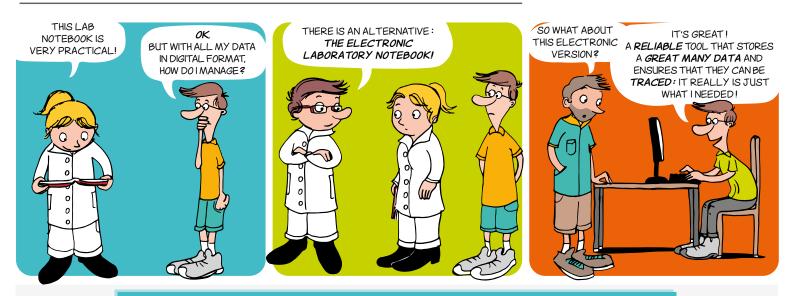








What if you opted for the electronic version?



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 thze management of intellectually 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 sharina

- 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

# <u>Development of the tool and adoption by users</u>

- 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.

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 loca 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.

### **ULB - KTO**

ulbkto@ulb.be +32(0)2/650.47.22

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.

<sup>\*</sup> 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!

# FOR WHICH NEEDS? FOR WHICH NEEDS? FOR WHICH NEEDS? INNOVATIVE?

### **LINKS**

- Patentability
- Patent as a source of information
- · Prior art searching

### **HOW TO GET IT?**

**ULB-KTO** 

ulbkto@ulb.be













This PDF version gives an overview of the document. Please contact the  $\underline{\text{KT0}}$  to access and fulfil the electronic version.

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
Generic Software or Stand alone software Algorithm Research Tool/Library Game 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?)

Software Disclosure

KTO contact : [nom du valorisateur]



	Copyright Holder		or short description)	Lice	License type (GNU, BSD etc.)		
ı <b>nding:</b> (typi	e = Internal Fundi	ng Regional	, National, European c	or Oth	er)		
	Name/acronym	Duration	Nature of the contra				
ype	ivame/acronym	Duration	Nature of the contra	ICL	Industrial sponsor/partner		
		3. G	ENERAL INFORMATIO	N			
Description	on of the software	: provide a b	rief general description	on of t	the software and its added		
-		•	clude schema/picture				
value, list	. 3 keyworus ariu i	i required iii	ciude scrierria/picture	:5.			
NEED: wh	ich problem(s) or	need(s) is (a	ıre) addressed by this	softw	vare? Does the software meet		
				softw	vare? Does the software meet		
			are) addressed by this oblem? Why/How?	softw	vare? Does the software meet		
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Software Disclosure

KTO contact : [nom du valorisateur]





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

Yes	No	?						
			CHEAPER. The software is cheaper to make or use than those currently available on the market.  Why/How?					
			ASIER TO USE. The software is less complicated, less labor intensive, more user friendly han those currently available on the market.  Nhy/How?					
			EASIER TO MAKE. The software is less complicated/complex to develop than those currently available on the market.  Why/How?					
			FASTER. The software works faster than those currently available on the market. <b>Why/How?</b>					
			MORE PRECISE. The software yields more accurate results than those usually achieved. <b>Why/How?</b>					
			MORE ATTRACTIVE. The software would appeal to a broader segment of the market the those currently on the market.  Why/How?					
			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?					
			MORE RELIABLE. The software breaks down less frequently, or is more consistently successful, than those currently available on the market.  Why/How?					
			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					
4.1.5	Specify	the p	ositioning of your software on the market					
			LASTING MARKET. The need or demand for the software will last for a very long time.  Why/How?					
			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?					
			GROWING MARKET. There has been steady growth in the target market for your software over a number of years.  Why/How?					
			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.					

Software Disclosure

KTO contact : [nom du valorisateur]

Confidential





			Why/Ho	w?		<u> </u>		
			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/Hov					
HARD TO DUPLICATE. Competitors will have difficulty developing an equival						equivalent		
	software, or in solving problems without it. Why/How?							
			VVIIV/ NO	VV I				
4.2. T	o whon	n (users	, custome	ers, industry) is	this invention d	edicated? List t	he names of co	ompanies you
		-			technology to m			
Р	lease sp	oecify w	ith exam	ples (company	names, press a	ticles) + App	lications?	
				6				
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).								
								Does this
Cor	npany		you had acts with	Contact Name	Position/Title	E-mail	Phone	company
COI	прапу		ompany?	Contact Name	Position/ fitte	E-IIIdii	Priorie	already offer a
								similar product?
		∐ Y€						Yes No
		☐ Ye						Yes No
		∐ Y€	es No					Yes No
		L   16	:3 🔲 INO	I	l	I		

Software Disclosure

KTO contact : [nom du valorisateur]





### 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.

with your recillology transjer office.	<del></del>
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	

Software Disclosure

KTO contact : [nom du valorisateur]





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

LAB SCALE		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.	
		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.	
		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		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.	
		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.	
		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.	
MARKE T SCALE	_	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





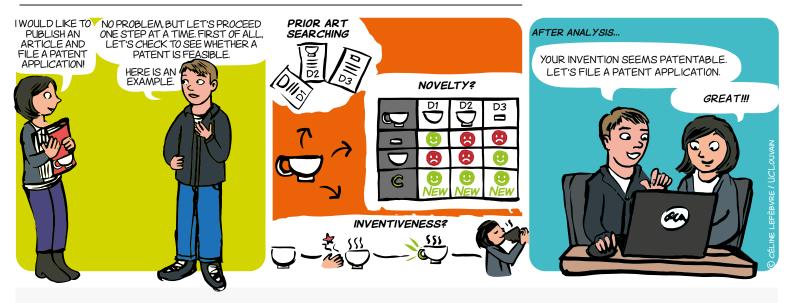
	operational environment	actual external entities. Software support structure is in place. Software releases are in distinct versions. Frequency and severity of software deficiency reports do not significantly degrade functionality or performance. Verification, Validation and Accreditation completed.
	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	<b>TRL 9</b> : 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.

Software Disclosure

KTO contact : [nom du valorisateur]







#### 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.

#### CONTACT

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✓ ulbkto@ulb.be

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# 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

# 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.



#### 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:

i) determine the closest prior art,

ii) determine the technical differences between the invention and the closest prior art,

iii) establish the 'objective technical problem' to be solved and

iv) 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.

 $<sup>* \</sup>underline{www.epo.org/law-practice/legal-texts/html/guidelines/e/g.htm}\\$ 

















# **WHAT IS A UNITARY PATENT?**

Since the Agreement on a Unified Patent Court (UPCA) came into force on 1st June 2023, it is possible to request that a European Patent (EP), once granted, be applied in a unitary way. The resulting so-called Unitary Patent (UP) provides uniform patent protection in all the countries which have ratified the UPCA.

The Unified Patent Court (UPC) has exclusive jurisdiction with respect to the validity, enforcement and infringement of the unitary patent.

With a UP, it is still possible to acquire EP patents and/or national validations of EP patents.

# **GEOGRAPHICAL COVERAGE**

UPs have a unitary effect in all participating member states which have ratified the UPCA by the date of the EP being granted – 17 UPCA countries in June 2023 (dark blue).

National validation remains necessary in:

- UPCA member states having not yet ratified the UPCA by the date of the EP being granted (light blue)
- EU member states (3) that do not participate in the UPCA (dark and light red)
- Non-EU member states of the European Patent Convention (grey)

It is important to highlight that granted UPs shall not be extended to countries ratifying the UPCA after the UP has been granted. Therefore, several generations of UPs differing in their geographical scope will exist.



#### WHEN AND HOW TO REQUEST UNITARY EFFECT

The centralised examination procedure of EP applications (before they have been granted), and the post-grant opposition procedures at the European Patent Office (EPO), are not modified. A request for a UP has to be filed with the EPO, **within 1 month** from the date the patent's granting has been published. No official fees are due for such request.

If national validation remains the preferred protection route, an opt-out request may be filed. The corresponding bundle of national patents will thereby be withdrawn from the jurisdiction of the UPC for their entire lifetime and the national courts will retain exclusive jurisdiction.

A new option upon the granting of a European Patent

#### WHY?

#### **Key Advantages vs Risks and Drawbacks**

Simplified Administration	But		
One single request to be filed with the EPO.	National validation remains required in UPCA member states which have not yet ratified the UPCA and in non-UPCA countries.		
One single patent register for a UP, including legal status, licensing, transfer, limitation, revocation. One single registration of licenses and transfers at the EPO under a single legal regime.	Licensing remains possible for selected UPCA countries, enabling licenses to be granted on one UP to different licensees in selected UPCA countries.		
Cost Advantage	But		
One single translation: translation of the claims into English, French and German only. Complete translation of the patent specification into the national languages of UPCA-countries is no longer required upon UP grant.	During a 6-year transition period, one single full translation of a UP patent into any official language of an EU member state is required. Translations are also required in some non-UPCA countries (e.g. Spain).		
One single renewal fee: a single annual renewal fee payable in euros to the EPO (amounting to the cumulated annual fees of only 4 countries while covering all UPCA countries).	Withdrawal is only possible if all participating UPCA countries agree (all or nothing). There is no possibility of patent pruning. Additional renewal fees remain due in non-UPCA countries upon national validation (e.g. GB).		
One single litigation in front of the UPC as compared to multiple parallel national litigation procedures for a traditional EP.  For infringement actions, a fixed fee and value-based fees are due. For revocation actions including counterclaim for revocation, only a fixed fee is due <sup>1</sup> .	In proceedings before the UPC, costs of legal dispute incurred by the prevailing party are to be reimbursed by the losing party and can be high depending on the value being disputed.		
Legal Certainty	But		
One Court. The UPC has exclusive jurisdiction for UP enforcement, infringement and validity with UPC decisions applying to UP in all UPCA countries.  A single UPC decision for infringement enabling UP rights to be enforced in all UPCA countries at once.  The UPC benefits from the competences of specialised judges and should provide rapid judicial decisions (with English as the language of the proceedings).	Forum-shopping among UPCA countries jurisdictions is not possible for a UP. There is the risk of a single central revocation of UP rights in all UPCA countries at once. The UPC is a new court; there could be some uncertainty about the quality of decisions in the early phases of UPC operations given the lack of related case law.		

# **LINKS**

More info:

<u>Patent</u>

<u>Patentability</u>

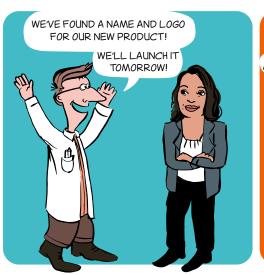
# **CONTACT**

 $<sup>^{1}</sup> More\ information\ on\ fees\ can\ be\ found\ here:\ https://www.unified-patent-court.org/en/registry/court-fees$ 

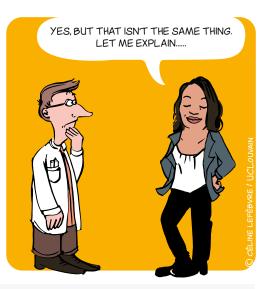












#### WHEN?

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

#### 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

## 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



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

#### WHAT REQUIREMENTS ARE THERE?

#### **Distinctiveness**

The sign must be neither descriptive nor generic

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

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.

Linoleum, etc.

#### **HOW MUCH DOES IT COST?**

In Benelux

Around €244 for 10 years for one class, €27 for the 2<sup>nd</sup> 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(out)

#### Classification of products and services

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

# **CONTACT**

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#### When search results may not be protected by a patent or another intellectual property right







#### \* 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

The directive was transposed into Belgian law by the law of July 30, 2018 on the protection of trade secrets in force since August 14, 2018. Provisions introduced in the economic law code Book XI - i.e. Art. XI.332/3:

JULY 30, 2018. - Law on the protection of business secret (1)

# Your know-how is valuable!

#### When search results may not be protected by a patent or another intellectual property right

#### 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

To find out more

#### **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,
- If necessary, register the trade secret in an i-DEPOT
- etc

#### CONTACT

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#### **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 in:

- 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.

# 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 aigainst a commercial fee to be negociated.

# 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.

# **USEFUL LINKS**

- Verification of the novelty of the plant variety
- General information for the breeder

# 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

#### CONTACT

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ulbkto@ulb.be





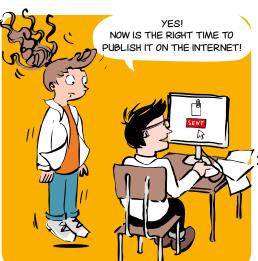






DESIGNS 1/2







\* 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.



#### **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

→ 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!

**DESIGNS** 2/2

#### 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)

#### 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.

#### LIENS

https://euipo.europa.eu/ohimportal/ fr/designs-in-the-european-union

#### ONE NOTABLE EXCEPTION

against any identical reproduction, were first available to the public within

However, the difference with filed design difficult to provide...

**MORE INFO** 

## 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

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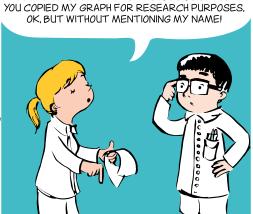












YOU'LL LIKELY GET INTO TROUBLE BECAUSE

# 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, wathever 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

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

**ULB-KTO** 











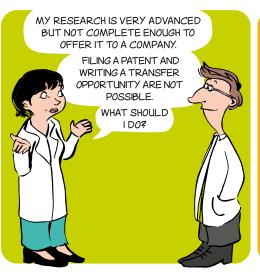


# **PATENT**

# What happens when a patent application is filed?

Illustration of a typical procedure. Variations may be considered by your KTO. Receipt of Filing a the search first patent report application Patent procedure **KTO** procedure Filing of an Click on each button International Patent for more information Application (PCT) **Receipt** of the international search report (ISR) National/regional entry phases **Publication Examination** (final choice of the of the patent Issuing **Patent** territories to be in different applications protected) countries/regions • of patent expiry

to offer visibility to your research







#### **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.

# 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

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

**More info** 

#### CONTACT

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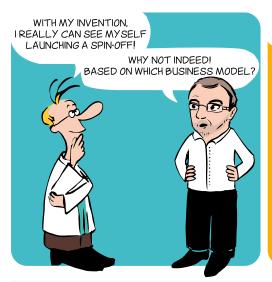


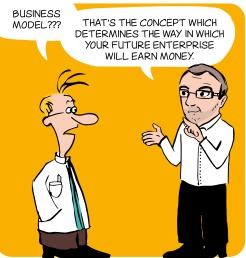


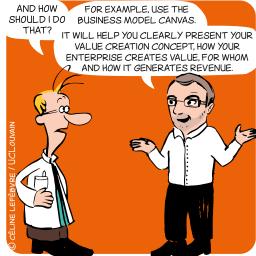
## THE BUSINESS MODEL CANVAS

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**

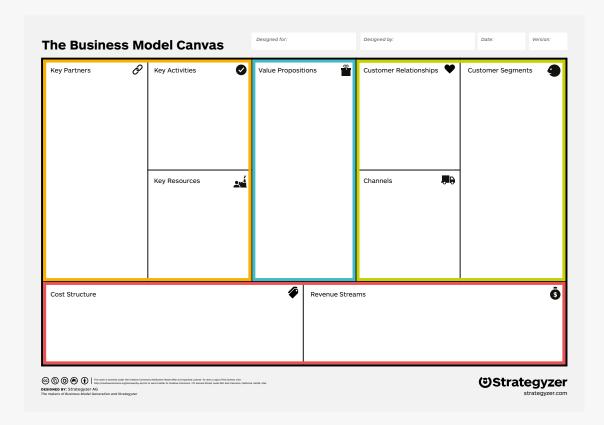
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Describe, design, challenge, invent and pivot your business model!

#### A strategic management and entrepreneurial tool



#### **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, cocreation)?

#### **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



THAT'S AN EXCELLENT IDEA! FOR STARTERS, I SUGGEST YOU USE THE SOCIAL BUSINESS MODEL CANVAS WHICH HELPS TO TAKE INTO ACCOUNT THE SPECIAL CHARACTERISTICS OF SOCIAL ENTERPRISES





# WHAT IS A SOCIAL **ENTERPRISE?**<sup>1</sup>

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
- 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.

<sup>1</sup> Initiative for social entrepreneurship from the Commission, Ref. Ares(2015)5946494, 18.12.2015, Commission

#### **CONTACT**

**ULB-KTO** 



## ₩ ulbkto@ulb.be +32(0)2/650.47.22

# **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!

# 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 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.).

#### **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.).

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

Inspired by The Business Model Canvas

**MORE INFO** 



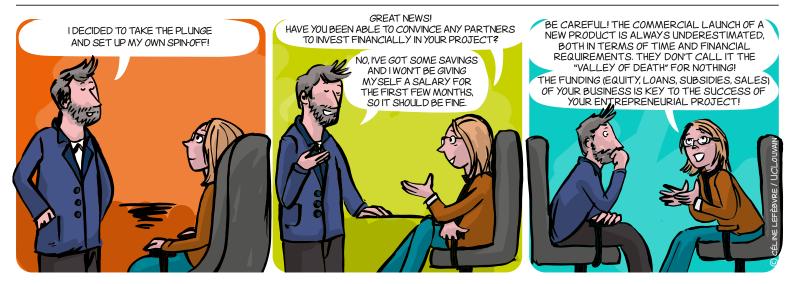








to turn research results into reality and apply them through spin-offs



# A word to the wise: Seek advice every step of the way!

#### **PREREQUISITES**

A research result, however promising, does not necessarily have sufficient market potential to justify setting up a company. In such cases, other methods of promoting the company may be considered.

It is therefore vital, before embarking on the creation of a spinoff, to validate the market potential and the viability of the business model envisaged. The credibility of the project, and therefore the interest of potential investors, depends on it.

Your KTO will be able to help you with these steps and explain the framework within which the University envisages the creation of spin-offs.

#### WHAT IS IT?

To obtain funding from sources other than credit providers, a company can resort to **fundraising**. This involves bringing investors into a company's capital. These investors contribute money to the company in return for a stake in its share capital.

#### PROVIDING FUNDING TO MATCH THE COMPANY'S NEEDS

The most important aspect of raising funds is the assessment of the company's financial worth.

The founder, who has been involved in the project for months or even years, often fears being undermined if they open up their capital and give too large a stake to investors.

An all-too-common mistake: overestimating the financial value of your project to avoid dilution<sup>1</sup>.

→ A financial assessment that is too high risks driving away potential investors and hindering subsequent fundraising.

When fundraising, it is essential that the company receives sufficient funds to meet its needs, even if this means agreeing to sell a percentage of the capital.

<sup>&</sup>lt;sup>1</sup> Dilution occurs in all capital increases, and therefore in most fund-raising operations. This phenomenon involves the company issuing new shares to new shareholders, which means - for the founders of the company - a reduction in their percentage holding of the share capital.

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#### NOT ONE BUT SEVERAL!

If things go well, the company will need to raise additional funds to ensure its growth. The funding market can be structured as follows:

PRE-SEED

SEED/ANGELS

**SERIES A** 

**SERIES B** 

**SCALE** 

PE

IP0

**Subvention - Love** money

SERIES A - 2<sup>nd</sup> round of funding Reaching profitability and a large audience

500k to 3.000k€ Previous investors, venture capital funds

**SCALE** 

Continue to grow rapidly, focus on international expansion

> 10.000k€ Investment banks, development capital funds **IPO - Initial Public** Offering - Initial public offering (IPO)

Open up capital to investors. arow the business, benefit from a higher profile

SEED - 1st round of funding Large-scale market validation

100k to 500k€ Business angels, investors, small start-up funds

SERIES B - 3rd round of fundina **Expand internationally** and/or buy out competitors 3.000k to 10.000k€ Venture capital funds

**PRIVATE EQUITY Internal and external** growth

Institutional funds and funds from high net worth

The more accurate the initial financial assessment, the easier the subsequent negotiations will be.

Get help from an external expert!

#### THE RIGHT BALANCE

Fundraising is about striking the right balance between:

- → Capital and other sources of non-dilutive funding (loans of all types);
- > Public and private investors.

There is a strong temptation to favour non-dilutive sources of finance, but putting the company into too much debt at the start risks compromising the entire project.

It is therefore important to validate the business model and draw up a financial plan based on realistic scenarios, in order to assess the company's needs as accurately as possible and adapt the funding arrangements accordingly.

Once again, this is a job in itself. Seek advice!

# A WELL-NEGOTIATED SHAREHOLDERS' AGREEMENT

A shareholders' agreement provides a structure for the relationship between a company's co-shareholders.

It governs the rights and obligations of each party and sets out the conditions under which shareholders may join or leave the company.

It also makes it possible to settle any disagreements by providing shareholders with assurances regarding the terms and conditions of the fundraising under way.

There are many specific clauses. Seek advice!

#### CONTACT

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# KNOWLEDGE TRANSFER AND ITS PROCESS

Checklist for the researcher

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