KNOWLEDGE TRANSFER AND ITS PROCESS
CHECKLIST FOR THE RESEARCHER

An initiative of partners of the LiEU Network (UCLouvain, ULB, ULiège, UMONS, UNamur) with the essential contribution of Céline Lefebvre for the illustrations and graphic design.

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Request support from the Knowledge Transfer Office

With the support of

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

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

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

Have fun surfing and reading!
If knowledge transfer is envisaged, scientific publication should be done in agreement with the KTO.

Tools available to researchers during key steps of the knowledge transfer:

- R&D: Call for projects, Setting-up and submission of projects, Project launch, Project monitoring
- Knowledge Transfer: Protection of results
- Licence
- Spin-off
- Research contract

Click on the buttons to access the tools.
For any shipment or receipt of material used generally for research purposes.

For all types of material.

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.

**WHAT IS AN MTA?**

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**IN RESPECT OF WHAT?**

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

**Do you receive or provide material from research?**

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

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.

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.

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Cofinancé par l'Union européenne
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.

WHAT IS FREEDOM TO OPERATE? (FTO)

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.

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.

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.

My freedom to operate stops where that of others starts!
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.
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 developing 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:

- **GPL**
- **MIT**
- Proprietary (commercial)

**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.

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**GPL**

Copyright (c) 20xx-20xx "University (official) name" // this is the owner(s) (mandatory)

James Cook (laboratory of Soft Dev) - Contact: james.cook@research.be // facultative

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You should have received a copy of the GNU General Public Licence along with this program. If not, see <http://www.gnu.org/licenses/>. // these are the licence specific terms (mandatory)

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**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

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**MORE INFORMATION**

- Licence Families
- Compatibility Chart
- Free and Open source
- Distribution

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

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

Patent applications contain technical, economic and legal information.

* The claims define the scope of the legal protection
THE PATENT AS A SOURCE OF INFORMATION

HOW?

Scope of the search

Search in patent databases

Structured data
Classification codes, references, etc.

Unstructured data
Documents: abstracts, descriptions, etc.

Images

Tools for extracting and viewing data

Gathering information

Statistical analyses, documents, etc.

Sets of patents
(applications or granted)

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.

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Cofinancé par l'Union européenne

LiÈGE université
RISE
Recherche Innovation Support Entreprises
LiEU
“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 designs, 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.
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

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**WHAT IS IT?**

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

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

**WHO IS IT FOR?**

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

**WHAT DOES IT APPLY TO?**

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

**WHY?**

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

**WHEN SHOULD IT BE REFERRED TO?**

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

**KEY DEFINITIONS**

- **Collaboration agreement**
- **Consortium agreement**
- **Rights of access**
- **Partners**
- **Project**
- **Findings**
- **Pre-existing Know-how**
- **Application**

**COLLABORATION AGREEMENT**

Agreement to be concluded between a project's **academic partners** before submitting a grant application. This stipulates the intellectual property rights over the findings, in line with the partners’ respective interests, their degree of participation in the work and their contribution to the project.
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.

OVERARCHING PHILOSOPHY

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.

OWNERSHIP

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

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

This document is interactive, please refer to the electronic version for more information.
**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.
COLLABORATIVE RESEARCH
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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To launch a research project, file a patent application, identify partners or competitors, and to assess freedom to operate.

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

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!
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 PICARRÈ.
TECHNOLOGY READINESS LEVEL
A scale of maturity and a tool to help innovate and collaborate

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.

Share the same language to assess the levels of maturity of a project.
The TRL concept is very useful since it provides a common reference framework for defining and evaluating objectives, risks and investments by the parties involved in a collaborative project. The partners agree on a starting point at the outset of a project and together define the level of maturity to be reached within the scope of their collaboration, and the tasks to be undertaken.

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

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

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

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

**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).

**QU’EST-CE QU’UN BIEN À “DOUBLE USAGE” (DUAL USE) ?**

**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 DOES THE TERM ‘MISUSE’ COVER?**

Misuse refers to the risk:

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

**WHAT IS MEANT BY ‘EXPORT’?**

‘EXPORT’ in this case means any TRANSFER considered in a very broad sense:

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

**WHAT IS THE CONTROL OF ‘EXPORTS/TRANSFERS’?**

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

**WHEN DO WE NEED AUTHORISATION (‘EXPORT’ LICENCE)?**

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

- is included in the control list of dual-use items (Annex I of Regulation (EU) 2021/821)
- is NOT included in the control list of dual-use items (Annex I of Regulation (EU) 2021/821). 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!

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1 [EN version](https://eur-lex.europa.eu/eli/reg/2021/821/oj)
RESEARCH AND THE RISKS OF MISUSE

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

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.

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**‘Exports / Transfer’**

- **To 3rd country with sanctions**
  - Listed dual-use good
  - Forbidden or export license required

- **To 3rd country without sanctions**
  - Non-listed
  - Check catch-all
  - Export license required

- **To EU member state**
  - Listed dual-use good
  - Annex IV
  - Transfer license required

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**To EU member state**

- **Listed dual-use good**
  - Annex IV
  - Transfer license required

- **Non-listed**
  - License-free in principle

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**CONTACT**

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**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
- Decision support for license request form

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USE THE LABORATORY NOTEBOOK WITHOUT MODERATION

Your research down in black and white!

Traceability tool: the researcher's and the laboratory's memory

Legal tool: evidences

Scientific tool: log book to standardize processes, protocols within a research team

• 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

WHY?

WHO DOES IT AND FOR WHOM?

• 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
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**

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

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

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

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

THE ADVANTAGES OF THE ELECTRONIC VERSION*

**Data management**

**Data sharing**

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

**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.)

**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
THE LABORATORY NOTEBOOK

What if you opted for the electronic version?

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

**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**
- Electronic device needed for data input

**Development of the tool and adoption by users**
- Involvement of researchers
- Training for users
- Definition of good practices

---

**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.)

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**Some examples of use in French-speaking universities**

Discussions have been launched within all Universities and some initiatives have already been launched.

Thus 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 installed on a local server since 2017 and 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, ULiège makes the RSpace tool available to all its researchers.

---

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

*The advantages and conditions of use are generic and depend on the selected solution*
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!

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.

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

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

* In the interests of simplicity, the term ‘invention’ will imply more broadly any technical or social innovation.
INVENTION DISCLOSURE (ID)

WHAT DOES THE ID CONTAIN?

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

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

To serve society better, your inventions you will declare!

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

HOW TO GET IT?
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The **Software Invention Disclosure** is a form provided by your KTO to initiate the process of distributing software developed as part of your research. By «software» we mean any type of programme, procedure or computer module (standalone software, plug-in, application, library, etc.) that you wish to make available to partners and users outside your university.

The Software Invention Disclosure is used to record a brief description of your software, the people involved, external dependencies, your expectations regarding the distribution strategy, etc. Later, in consultation with your KTO and only if you are planning to develop your software economically/market it, you will go into more detail about the need that the software meets, the potential market that it covers, an analysis of patentability, etc.: this is known as the **Invention Disclosure**.

The Software Invention Disclosure is a communication tool and an exchange of information with your KTO. It is also an essential working document to determine with you the most appropriate **distribution strategy** and type of software licence.

### WHEN TO COMPLETE IT?

**Ideally, the Software Invention Disclosure should be completed when:**

- You plan to make your software available outside your research group.
- You want to define the most appropriate software distribution licence in relation to your expectations and your research context.
- You use external software libraries and would like to gain a better understanding of the impact they could have on the distribution of your own software.
- You think that a company or the general public might be interested in your software and you want to get the ball rolling.
- You have questions about the copyright that applies to your software.

Contact your KTO now!
The aim of the Software Invention Disclosure is to gather as much useful information as possible to start the process of managing and, where appropriate, distributing your software:

- It is a shared working and communication tool.
- It facilitates exchanges and understanding of the software to be distributed.
- It will enable you to make an informed choice about your distribution strategy and, where appropriate, the best ways to add value.
- It enables you to keep a record of the contributions made by the researchers involved in developing the software to be promoted and to determine who owns the rights to your software.

1. The information requested may vary from one university to another and mainly concerns:
   - The type of software (standalone, module, app, etc.).
   - A description of the software (functionality, target audience, innovative nature, etc.).
   - The type of distribution required (open-source, commercial, dual licence, etc.).
   - The external dependencies used or integrated by the software.
   - The Software Readiness Level.
   - Any documentation available.
   - Etc.

2. It will also include administrative information, such as:
   - The people involved in developing the software.
   - Everyone’s contribution to the software.
   - Sources of funding for the project.

THINK ABOUT IT

It is common to develop code jointly with a partner from outside the university (another university, a student not subject to intellectual property regulations, a research centre, a company, etc.). In this case, the software to be distributed will be co-owned and the choice of distribution licence will require the agreement of all the co-owners.

CONTACT

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

a. Industrial applicability: an invention is considered to be eligible for industrial application if its object can be made or used in any kind of industry, including agriculture.

b. Novelty: an invention is considered to be new if it does not form part of the state of the art, that is everything that has been made available to the public before the date on which the patent application was filed through a written or oral description, a use or any other means.

c. Inventiveness: an invention is considered to involve an inventive activity if, for a person skilled in the art (practitioner in the technical field of the invention), it does not result obviously from the state of the art.

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

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

FOR WHAT?

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

FOR WHOM AND WHEN?

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

LINKS

- Memo Patent as a source of information
- Memo Prior art searching
- Memo Patent procedure
- Memo Freedom To Operate
- Guidelines on the examination conducted at the European Patent Office
A. INDUSTRIAL APPLICABILITY
Barring fairly exceptional cases, the industrial applicability criterion is considered to be fulfilled.

B. NOVELTY
Stage 1: Carry out a Prior art searching (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.

- Aluminium building frame
- Cup with a handle
- Use of a special new adhesive suitable for fixing a polymer to a metal
- Product P for use in the treatment of illness B
- Sausage making machine consisting of the juxtaposition of a mincer and a filler
- Analgesic + sedative blend, the sedative strengthening the effect of the analgesic in an unintended way

A new option upon the granting of a European Patent

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.
## WHY?

### Simplified Administration

<table>
<thead>
<tr>
<th><strong>One single request</strong></th>
<th>to be filed with the EPO.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>One single patent register</strong></td>
<td>for a UP, including legal status, licensing, transfer, limitation, revocation.</td>
</tr>
<tr>
<td><strong>One single registration of licenses</strong></td>
<td>and transfers at the EPO under a single legal regime.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>But</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National validation remains required in UPCA member states which have not yet ratified the UPCA and in non-UPCA countries.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Licensing remains possible for selected UPCA countries, enabling licenses to be granted on one UP to different licensees in selected UPCA countries.</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Cost Advantage

<table>
<thead>
<tr>
<th><strong>One single translation</strong></th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>One single renewal fee</strong></td>
<td>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).</td>
</tr>
<tr>
<td><strong>One single litigation in front of the UPC</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th><strong>But</strong></th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>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).</strong></td>
<td></td>
</tr>
<tr>
<td><strong>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).</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Legal Certainty

| **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). |
|------------------------|---------------------------|

<table>
<thead>
<tr>
<th><strong>But</strong></th>
<th></th>
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<tbody>
<tr>
<td><strong>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.</strong></td>
<td></td>
</tr>
</tbody>
</table>

---

**CONTACT**

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**LINKS**

Patent

Patentability

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1 More information on fees can be found here: https://www.unified-patent-court.org/en/registry/court-fees
**Trademark**

**for getting noticed and standing out!**

---

**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

---

**FIRST TO FILE – FIRST SERVED!**

The first to protect a trademark on a given territory and within a market may object to its competitors using the same sign or a similar sign
TRADEMARKS
for getting noticed and standing out!

WHAT REQUIREMENTS ARE THERE?

• **Distinctiveness**
The sign must be neither descriptive nor generic

• **Legality**
The sign must not contain deceptive elements that may mislead the consumer, or be contrary to morality or public order

• **Availability**
The sign must not already have been acquired as a trademark or have been earlier appropriated by a third party as its company name, trade name, domain name, etc.

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

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

ALSO...

The trademark may be cancelled for lack of use:
it is subject to a duty of use within five years.

A sign can become generic:
a brand can be a victim of its own success and become a common name.
e.g.: Aspirin, Thermos, Escalator, Trampoline, Linoleum, etc.

HOW MUCH DOES IT COST?

• In Benelux
  Around €244 for 10 years for one class, €27 for the 2nd class and €81 per additional class.

• For the European Union
  Around €850 for 10 years in one class, €50 for the second class, plus €150 per additional class from the third class onward.

• Internationally
  www.wipo.int/madrid/fr/fees/calculator.jsp
  is a tool that can provide a quote.

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

USEFUL LINKS

**Trademarks databases**

→ https://www.tmdn.org/tmview/welcome
→ https://register.boip.int/bmbonline/intro/show.do
→ http://www.wipo.int/romarin (out)

**Classification of products and services**

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

CONTACT

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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!
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 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.

WHY RESORT TO TRADE SECRET?

To reflect on

The Coca-Cola Strategy

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

The Michelin strategy:

An example of the difficulty in finding a balance between protection by trade secret or by patent is the one of Michelin. Until recently, the group filed very few patents, for fear of disclosing its technologies to competitors. Until it became a victim of espionage...

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

More info

A FEW THOUGHTS

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

CONTACT

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Cofinancé par l’Union européenne
PLANT VARIETY RIGHTS

What about protecting your new vegetal varieties?

The breeder’s right is only granted where the variety is:
- New
- Distinctness
- Uniform
- Stable
- Suitable denomination

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.

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

TO PROTECT WHAT?

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.

WHAT ARE THE REQUIREMENTS?

TO WHOM DO THE RIGHTS BELONG?
PLANT VARIETY RIGHTS
What about protecting your new vegetal varieties?

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

- To avoid others using your protected plant variety without permission.
  - for example, the holder of the certificate (called the ‘breeder’) might prohibit reproduction or multiplication, offer for sale, marketing, import and export of the plant variety that he has developed, without his consent.
- to write off the investment that you have made for the development of the new plant variety.
  - the user might grant licenses to third parties (mainly to companies) in order for them to be legally able to commercially exploit the plant variety against a commercial fee to be negotiated.

HOW 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 LONG DOES LEGAL PROTECTION LAST?

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

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

HOW 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**

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 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.

USEFUL LINKS

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

CONTACT

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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.

- **Individual character**
  The informed user must not have the feeling of “déjà vu”.

- **It must not be contrary to public order or good morals**

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

**WHAT IS THE PROCEDURE?**

**ONE NOTABLE EXCEPTION**

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

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

**FOR HOW LONG?**

In the majority of cases:

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

**WHEN TO FILE?**

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

**LIENS**


**CONTACT**

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COPRIGHT PROTECTING YOUR ORIGINAL WORK

WHAT ARE THE CONDITIONS FOR COPYRIGHT PROTECTION?

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

- **Format**
  The original work must be materialised, whatever the medium.
  The following in particular are covered by copyright: books, scientific papers, correspondence, software, databases, graphs, drawings, plans, photographs, paintings, sculptures, etc.

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

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

WHO IS THE AUTHOR, THE OWNER OF THE COPYRIGHT?

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

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

The law provides for cases where transfer to a third party is presumed. So for software, the employer is presumed, unless there is evidence to the contrary, to be the owner of the copyright on software created by its employees in the course of their duties.
Copyright covers the FORM in which an idea is expressed (a text or a drawing for example), but not the IDEA itself!

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.

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.

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Cofinancé par l'Union européenne
A patent is an intellectual property right granted by a public authority for the protection of an invention within a specific geographic territory and for a limited duration (usually 20 years). The patent holders, in exchange for a detailed description of the invention, have the right to prevent any third party from exploiting, manufacturing, using, marketing, and importing/exporting the invention without their permission, within the territory covered by the patent.

**WHAT IS A PATENT?**

A patent is a way of protecting technical inventions.

**WHAT ARE THE REQUIREMENTS?**

Patents are granted for any invention in all fields of technology, provided that the invention is new, involves an inventive step, and is susceptible of industrial application (Article 52(1) of the European Patent Convention / memo [patentability](#)).

Discoveries, scientific theories, mathematical methods, aesthetic creations, programs for computers, presentations of information, and schemes as well as rules or methods for performing mental acts, playing games, or doing business, are not considered as inventions and are therefore not patentable as such.

Furthermore, some inventions are excluded from patentability by legislation, namely inventions the commercial exploitation of which would be contrary to the “ordre public” or morality, methods for human cloning, plant or animal varieties, essentially biological processes for the production of plants or animals, methods for treatment of the human or animal body by surgery or therapy, or diagnostic methods practised on the human or animal body (Article 53 of the European Patent Convention).

The rules and exceptions mentioned apply to the European Patent Convention contracting states. Differences may exist between different jurisdictions.

There is no legal definition of what an invention is, but it is commonly defined as a solution implementing technical means to solve a technical problem.
The patent’s applicant is typically the patent holder (owner). When the research results to be protected belong to the university, the patent application is filed in the name of the university (intellectual property regulations). If the invention was made by multiple applicants, they will be co-owners. The names of the inventors are also mentioned in the patent.

In Europe, software as such is not considered as an invention. However, if the software can be regarded as a technical process that the software is intended to carry out, it may be considered as an invention and thereby becomes patentable. Such products or processes are referred to as “computer-implemented inventions.”

**WHO OWNS THE PATENT?**

**IS IT POSSIBLE TO PATENT A SOFTWARE IN EUROPE?**

**USEFUL LINKS**

- Freedom to Operate (FTO)
- Patentability
- Patent as a source of information
- Prior art searching
- Unitary patent (UPC)
- Inventorship
- European patent guide – European Patent Office

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INVENTORSHIP

To be or not to be an inventor

NOW THAT THE PATENT APPLICATION IS DRAFTED, WE HAVE TO LIST THE INVENTORS.

WE CAN USE THE LIST OF AUTHORS OF MY DRAFT PAPER!

NO, AUTHORS ARE NOT NECESSARILY INVENTORS.

AUTHOR

INVENTOR

REALLY?

YES, IT IS NOT SO SIMPLE!

LET ME EXPLAIN IT TO YOU...

WHO IS AN INVENTOR?

There is no universal definition of an inventor. Inventorship is governed by national criteria. In some countries, like in the USA, the law and/or the caselaw gives a clear definition of this concept. In other countries, like in Europe, the definition is not so well established.

➔ BE/EP: Each person with legal capacity who has made an inventive contribution to the development of the invention must be considered as an inventor or co-inventor. No distinction is made as to whether one person contributed more than another.

➔ US: An inventor is a natural person who has contributed to the conception of the invention. 'Conception' is defined as the formulation of a clear and complete idea of the invention in working order. An idea is sufficiently clear and complete when the invention may be carried out by applying ordinary skills without having to perform extensive research or experiments.

The order of the inventors is irrelevant to their contribution to the invention

HOW TO DESIGNATE THE INVENTORS?

Inventors are designated provided they made an active inventive contribution to the conception, the development, the improvement, etc. of the product or process object of the patent application, particularly the patent claims in the US. Therefore, inventor designation is made independently of any honorary, hierarchical, financial, service or friendship consideration. The mere fact of being the head of the laboratory or being the hierarchical superior of a true inventor does not make you automatically an inventor. Moreover, since the claims may be amended in the course of the patent application examination, the list of inventors can be reviewed accordingly.

In a patent application, it is possible to have:

➔ inventors who did not physically work together or at the same time,
➔ inventors who did not make the same type or amount of contribution,
➔ inventors who did not make a contribution to the subject matter of each part of the invention described in the patent application.

USEFUL LINKS

- Definition of inventorship in Belgium
- Definition of inventorship in the USA

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Inventors have to be named when filing patent applications. However, inventorship should not be confused with ownership. As a general rule, the University, as employer, is the owner of inventions conceived by its researchers (employees) during their research activities at the University. Students including PhD students who are not employees may assign their rights to the University to benefit from the same University support as that provided to researchers (see PI Transfer of right).

The correct designation of inventors is in addition required:
- to identify the researchers who may benefit from the financial returns attributed to inventors according to the regulation of their institution.
- to determine the shares of ownership of a patent application in case of inventors affiliated to distinct institutions, usually according to the principle of “ownership follows inventorship”.

Moreover, it is critical that all inventors (and only inventors) are designated in a patent application, since a patent that fails to name the correct inventors may be ruled invalid.

### WHY IS THE CORRECT DESIGNATION OF INVENTORS IMPORTANT?

You provided a technical solution to a technical problem during the conception of the invention:
- 🔴 NO
- 🔴 YES

You contributed to the conception of a feature that is not in the patent application:
- 🔴 NO
- 🔴 YES

You provided ordinary means (materials/equipment) or substantial work in the implementation/validation of the invention, by applying ordinary skills or according to the instructions of someone else:
- 🔴 NO
- 🔴 YES

You were only involved in the implementation/reduction to practice of the invention (not its conception, nor an inventive contribution to its development or its improvement), i.e. the process of demonstrating that the claimed invention works for its purpose (including its implementation or validation):
- 🔴 NO
- 🔴 YES

**HOW TO DOCUMENT INVENTORSHIP?**

The designation of inventors provided for in the "LiEU Invention Disclosure Form" is easier when each inventor can demonstrate their contribution relying on proofs such as:
- laboratory notebooks,
- minutes of meeting indicating participants and their contributions to the discussion,
- applications for research grants,
- summary notes or other internal memos concerning the invention.

**YOU CONTRIBUTED TO AN INVENTION BUT CAN YOU BE DESIGNATED AS AN INVENTOR?**

Click on the right answer

You provided a technical solution to a technical problem during the conception of the invention: 🔴 YES

You conceived at least some features present in the patent application by providing the means to implement them but did not perform the work: 🔴 NO

You contributed to the conception of a feature that is not in the patent application: 🔴 NO

You suggested an idea of a result to be accomplished without formulating the means of accomplishing it: 🔴 NO

You provided ordinary means (materials/equipment) or substantial work in the implementation/validation of the invention, by applying ordinary skills or according to the instructions of someone else: 🔴 NO

You were only involved in the implementation/reduction to practice of the invention (not its conception, nor an inventive contribution to its development or its improvement), i.e. the process of demonstrating that the claimed invention works for its purpose (including its implementation or validation): 🔴 YES
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.
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

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.

**WHO WRITES IT UP AND FOR WHOM?**

**WHEN?**

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

**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!
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.

### 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

2. Examples of business model

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

### 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.

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

### CONTACT

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The Business Model Canvas - often referred to 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.

The Business Model Canvas was born! Two years later the approach outlined in his thesis began to be implemented around the world.


The Business Model Canvas 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.

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

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

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

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

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.)?

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!

WHAT IS A SOCIAL ENTERPRISE?²¹

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


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.

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The SOCIAL Business Model Canvas takes into account the special characteristics of social enterprises!
THE SOCIAL BUSINESS MODEL CANVAS
To structure ideas and actions in a reasonable manner!

WHAT IS THE DIFFERENCE WITH THE INITIAL TOOL?

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

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

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

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

**SURPLUS**
One special characteristic of the SOCIAL business model canvas is to add a block involving a definition of the management of surplus generated by the activity (captured value). It is then necessary to consider set-aside, distribution of dividends, drawback or repayments, investment in another project, etc.

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### Social Business Model Canvas

<table>
<thead>
<tr>
<th>Key Resources</th>
<th>Key Activities</th>
<th>Type of Intervention</th>
<th>Segments</th>
<th>Value Proposition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partners + Key Stakeholders</td>
<td>What is the format of your intervention? Is it a workshop? A service? A product?</td>
<td>What programme and non-programme activities will your organisation be carrying out?</td>
<td>How are you reaching your users and customers?</td>
<td>User Value Proposition</td>
</tr>
<tr>
<td></td>
<td>Who are the essential groups you will need to involve to deliver your programme? Do you need special access or permissions?</td>
<td>Who benefits from your intervention?</td>
<td>Customer</td>
<td>Impact Measures</td>
</tr>
<tr>
<td></td>
<td>What are the biggest expenditure areas? How do they change as you scale up?</td>
<td>Who are the people or organisations who will pay to address this issue?</td>
<td>Customer Value Proposition</td>
<td></td>
</tr>
<tr>
<td>Cost Structure</td>
<td>Surplus</td>
<td>Revenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Where do you plan to invest your profits?</td>
<td>Break down your revenue sources by %</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**VALUE PROPOSITION**
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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 spin-off, 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. 

→ 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.

1 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.
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**
- **Subvention – Love money**
  - < 100k€
  - Relatives (family and friends), grant

**SEED/ANGELS**
- **SEED – 1st round of funding**
  - Large-scale market validation
  - 100k to 500k€
  - Business angels, investors, small start-up funds
- **SERIES A – 2nd round of funding**
  - Reaching profitability and a large audience
  - 500k to 3.000k€
  - Previous investors, venture capital funds

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

**SCALE**
- **Continue to grow rapidly, focus on international expansion**
- > 10.000k€
- Investment banks, development capital funds

**PRIVATE EQUITY**
- **Internal and external growth**
- Institutional funds and funds from high net worth

**IPO – Initial Public Offering – Initial public offering (IPO)**
- Open up capital to investors, grow the business, benefit from a higher profile

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!**

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SWOT (Strengths, Weaknesses, Opportunities, Threats) can help you to maximise the impact of your research and find new funding and collaboration opportunities. As a researcher, you’re probably wondering how this analysis can help you and what the key steps are. Your KTO is here to help you!

**INTRODUCTION**

SWOT analysis can be used at different stages of your research work. Firstly, it can be used right at the start of the process to assess the feasibility of your project. It will help you to identify the strengths and weaknesses of your research proposal, as well as the potential opportunities and threats you may face. It can also be used to assess the issues involved in exploiting the results obtained.

**WHEN?**

Swot analysis is useful for all university researchers, whether they are new or experienced. It can be used by doctoral students to structure their dissertation project, and also by established researchers who want to assess the relevance of their work and look for new opportunities for funding, collaboration or exploitation.

**WHO?**

This method will provide you with a clear vision of the different aspects of your research project and its exploitation. It will help you identify the competitive advantages you have over other researchers, as well as the gaps you need to fill to maximise the impact of your results. In addition, the SWOT analysis will enable you to identify emerging opportunities in your field, as well as the threats that could compromise the success of your project.

**WHY?**

The SWOT analysis is broken down into four parts:

**Strengths, weakn esses (internal factors), opportunities and threats (external factors).** To identify your strengths, you need to ask yourself about your skills, resources and specific expertise in your field of research. As far as your weaknesses are concerned, it is important to be intellectually honest and to identify the factors that could limit you in your work.

Opportunities are elements that could benefit your research, such as calls for projects, potential partnerships or technological advances in your field. Finally, threats are factors that could hinder your work, such as competition with other researchers or budget restrictions.

By using SWOT analysis on a regular basis, you can continue to assess the relevance of your work and find new opportunities throughout your research career. Don’t hesitate to contact your university’s Knowledge Transfer Office for more information and support in setting up and using SWOT analysis to manage your research activity.
SWOT ANALYSIS

To help you develop your academic research strategy and maximise its impact!

**Internal factors**

**STRENGTHS**
1. What are your strengths as a university researcher?
2. What specific skills do you have in your area of research?
3. What are the major successes or achievements of your research career?
4. What advantages does your institution/university offer you in terms of resources, funding or collaboration?
5. What partnerships or collaborations have you established (with companies, other researchers or institutions, etc.)?
6. What research results can you add value to?
7. Are you going to obtain results that could be industrially exploitable?
8. Are these results innovative/disruptive?

**WEAKNESSES**
1. What skills or knowledge do you need to improve in your area of research?
2. How comfortable are you in promoting and supporting your research ideas with other researchers or financiers?
3. What obstacles could prevent you from carrying out your research projects?
4. Do you find it difficult to obtain funding for your research projects?
5. What time or resource constraints could affect your research projects?

**External factors**

**OPPORTUNITIES**
1. What are the emerging trends in your field of research that could offer you new opportunities for collaboration or funding?
2. What are the potential collaborations with other researchers, institutions or industries that could strengthen your research results?
3. What are the trends or developments in your field of research that could create new opportunities for you?
4. How great is the need or demand for your specific area of research?

**THREATS**
1. What are the major obstacles or challenges you face in carrying out your research projects?
2. What is the competition in your field of research and how can you stand out from them?
3. Are there any government policies or regulations that could have a negative impact on your academic freedom or the exploitation of your research results?
4. How could changes in technologies or research methodologies threaten the relevance or value of your research results?

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As a university researcher, you are also a player in the third mission of universities, which is to ensure the societal impact of your research work. One approach that could be beneficial in helping you achieve this objective is the Value Proposition Canvas. This method, popularised by Alexander Osterwalder and Yves Pigneur in their book "Business Model Generation", offers a strategic vision for understanding and creating value for your stakeholders. Let’s explore the fundamental principles of the Value Proposition Canvas and highlight its benefits for your research activities.

**WHAT IS THE VALUE PROPOSITION CANVAS?**

The Value Proposition Canvas is a visualisation tool for analysing and identifying potential values for your key stakeholders. It is based on two essential components: the “Beneficiary Profile” and the “Value Proposition Profile”.

- **Beneficiary Profile**: This is a way of understanding your (future) value partners, including their needs, aspirations, issues and behaviours. It is essential to understand your end-users and the players involved in the research process in order to propose a relevant and attractive value proposition.

- **Value Proposition Profile**: This is the counterpart to the “Customer Profile”. It enables you to define and clarify your value proposition, i.e., the set of characteristics, benefits and solutions that your research can bring to your stakeholders. It is about identifying how your work can solve the problems of your end-users or offer new opportunities.

**Value Proposition Profile**

- The product, process or service that constitutes the value proposition.
- How the value proposition produces benefits desired by beneficiaries.

**Beneficiary Profile**

- What are the potential benefits from these tasks?
- What tasks of the beneficiary you can help with your solution/research results?
- What are the problems encountered from these tasks?
The Value Proposition Canvas is relevant to you as an academic researcher because it focuses on user orientation and creating value for your stakeholders. By understanding the needs and problems of your end-users, you can tailor your research to deliver more relevant and meaningful results. This can also lead to more concrete knowledge transfer opportunities and improved collaboration with industry or other partners.

1. Problem identification:
By analysing the profiles of your end-users, you can identify the key problems they face. This can help you to focus your research on areas where you can bring real added value, and to find the right partners to carry it out.

2. Co-creation with stakeholders:
By involving your stakeholders in the research process from the outset, you can ensure that your work meets their expectations and specific needs. Co-creation helps to increase the relevance and applicability of your research results.

3. Communication and dissemination of results:
The Value Proposition Canvas can also help you to communicate the results of your research effectively by focusing on the advantages and benefits for your stakeholders. This will facilitate the dissemination and adoption of your work.

The Value Proposition Canvas is a powerful tool for improving the impact of your research by focusing on value for your key stakeholders. By understanding the needs and problems of your end-users and tailoring your work accordingly, you can create more relevant and meaningful research results. This strategic approach will help you maximise the impact of your research.

Contact your Knowledge Transfer Office for potential collaboration and knowledge transfer opportunities.

USEFUL LINKS
- Official Value Proposition Canvas website
- Video explaining the Value Proposition Canvas
- Book explaining the Value Proposition Canvas

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KNOWLEDGE TRANSFER AND ITS PROCESS

Checklist for the researcher

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