# KNOWLEDGE TRANSFER AND ITS PROCESS

#### CHECKLIST FOR THE RESEARCHER

LIÈGE université Recherche & Innovation Interface Entreprises

Erkki Makkonen © Fotolia

An initiative of partners of the LIEU Network (SynHERA, UCL, ULB, ULiège, UMONS, UNamur, USL-B) with the essential contribution of Céline Lefèbvre for the illustrations and graphic design.



#### of the knowledge transfer

#### for the researcher

- Material Transfer Agreement
- Patent as a source of information
- Computer software: Distribution strategy
- Computer software: Marketing strategy
- Partnership research
- Technology Readiness Level
- Prior art searching
- Laboratory notebook
- Invention disclosure form
- Software disclosure form
- Trademarks
- Commercial secrecy
- Plant variety rights
- Designs or models
- Copyright protection
- Patent procedure
- Transfer or collaboration opportunities
- Business Model Canvas
- Social Business Model Canvas

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



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LE FONDS SOCIAL EUROPÉEN ET LA WALLONIE INVESTISSENT DANS VOTRE AVENIR In response to a request from researchers, the LIEU Network has developed an interactive guide enabling any researcher, new or experienced, to have an overall view of the process leading to knowledge transfer and to have concise summarised information at each step.

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

<sup>1</sup> via the Knowledge Transfer Offices (KTOs) of the universities and HEI of the Fédération Wallonie-Bruxelles (SynHERA, UCL, ULB, ULiège, UMONS, UNamur, USL-B)



# **USER GUIDE**



The information in this guide is necessarily summarized and not exhaustive. Also, do not hesitate to <u>contact us</u> to find out more.

Finally, this guide only makes sense if it is really useful to you: all your suggestions for improvements are therefore welcome!

Have fun surfing and reading!

Important note: many links allow you to move around inside this guide. If you use Foxit Reader, don't forget to activate the hand tool function. This is not necessary with <u>Adobe Reader</u>.

### TOOLS AVAILABLE TO RESEARCHERS DURING KEY STEPS OF THE KNOWLEDGE TRANSFER

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





# **MATERIAL TRANSFER AGREEMENT**

MTA – Material Transfer Agreement



### WHAT IS AN MTA?

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

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

### IN RESPECT OF WHAT?

➡ For any shipment or receipt of material used generally for research purposes

→ For all types of material

BACTERIA STRAINS • HYBRIDOMAS • ANTIBODIES • CELL LINES

NSTRATORS · .ES · POLYMERS ATERIAL S SOFTWARE • SOURCE CODE • DATA

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ANIMAL MODELS • TISSUES • PLASMIDS • PEPTIDES • BIOLOGICAL SAMPLES

# Do you receive or provide material from research?

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

# MATERIAL TRANSFER AGREEMENT

MTA – Material Transfer Agreement

### **TO DEFINE WHAT?**

→ The research project relying on the use of the material and the objectives pursued to limit the permitted use of the material within this framework, i.e.:

- ownership of the transferred material
- ownership of modifications, discoveries and inventions made by the receiving party
- the conditions of use that the receiving party is entitled to do (manipulations, improvements, etc.)
- the persons authorised to use the material
- confidentiality related to the material, for example in the case where a patent application is being considered
- the conditions related to scientific publications that may be written about the material
- Liability for damages which may arise from use of the material

#### BUT ALSO PRACTICAL ARRANGEMENTS

• identification of the material in question (nature, quantity level of hazard, etc.)

• bearing of transport costs

• duration of the agreement and terms related to the return of the material (or its destruction) upon termination of the agreement

### HOW?

• The MTA is negotiated by your KTO.

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

### WHO SIGNS IT?

WHEN?

the material.

•

As soon as there is a possibility of exchanging

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.

### CONTACT

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# THE PATENT AS A SOURCE OF INFORMATION 1/2



### WHY?

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

### **PATENTS = AVAILABLE INFORMATION**

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



\* The claims define the scope of the legal protection

Patent applications contain technical, economic and legal information.

# THE PATENT AS A SOURCE OF INFORMATION 2/2



### TOOLS

#### Patent databases

- PatentInspiration\*
- http://www.patentinspiration.com
- PatentScope\*
- http:///www.wipo.int/patentscope/search/en/search.jsf
- → Esp@cenet

http://worldwide.espacenet.com

➡ Google Patents

https://patents.google.com

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







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# **VALUATION OF COMPUTER SOFTWARE**

#### Distribution strategy



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### WHAT SHOULD I CARE ABOUT?

#### What could block my research?

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

Here are some examples of problematic situations you must be aware of:



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

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



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

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



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

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



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

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

### **GOOD CODING PRACTICES**

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

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

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

#### Source code header

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

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### PROTECTION

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

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

### TOOLS

#### FOSSOLOGY

Software which detects open source in code files

#### SONARQUBE

Software which analyses code to provide quality metrics

**SOFTWARE QUALITY METRICS EXPLAINED** Report on how to understand those metrics

#### SOFTWARE DISCLOSURE FORM

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

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

**MORE INFORMATION** 

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









# **VALUATION OF COMPUTER SOFTWARE**

#### Marketing strategy



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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!

# **VALUATION OF COMPUTER SOFTWARE**

Marketing strategy

### WHAT BUSINESS MODEL SHOULD YOU CHOOSE?

1. The quality and relevance of a *Business Model* 

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

The <u>SOFTWARE DISCLOSURE FORM</u> allows a reflection on these three elements

#### 2. Examples of business model

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

### WHAT METHODS CAN YOU USE TO SET THE PRICE?

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

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

#### • **NPV** (Net Present Value)

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

#### • benchmark

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

#### Replication cost

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

#### Compensation mechanisms are varied:

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







#### The COCOMO II method

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

### CONTACT

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# **TECHNOLOGY READINESS LEVEL**

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



### WHAT?

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

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



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

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# **TECHNOLOGY READINESS LEVEL**

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

### WHY?

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

The partners agree on a starting point at the outset of a project and together define the level of maturity to be reached within the scope of their collaboration, and the tasks to be undertaken. It is therefore primarily **a communication tool used for more effective collaboration** by the partners in an innovation process, including enterprises, researchers but also financial backers. Indeed, identification of adequate funding can be more easily defined based on the le vels of maturity to be passed through in the course of a project.

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



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

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# **PRIOR ART SEARCHING**

in patent databases



### WHY?

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

### WHAT IS A PATENT?

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

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

#### Patent = technical solution to a technical problem

### WHAT ARE THE CONDITIONS FOR AN INVENTION TO BE PATENTABLE?

- → Novelty
- Inventive step
- Industrial applicability

### WHAT IS PRIOR ART SEARCHING?

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

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

**80%** of the world's technical information is only to be found in patents !

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### **PRIOR ART SEARCHING** *in patent databases*

### HOW?

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

2) Define the technical problem you want to resolve.

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

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

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

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

PatentInspiration

http://www.patentinspiration.com

→ Esp@cenet

http://worldwide.espacenet.com

- → Google Patents
- https://patents.google.com

→ PatentScope

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

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



### CONTACT

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# **USE THE LABORATORY NOTEBOOK WITHOUT MODERATION**

Your research down in black and white!

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### WHY?

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

### WHO DOES IT AND FOR WHOM?

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

### **HOW TO COMPLETE IT**

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

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

# **USE THE LABORATORY NOTEBOOK WITHOUT MODERATION**

Your research down in black and white!

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### THE LIEU NETWORK LABORATORY NOTEBOOK



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

Notebook with unique identification

Notebook with numbered pages and no loose sheets of paper

#### NR. 36962

### WHAT ABOUT THE ELECTRONIC VERSION OF THE LABORATORY NOTEBOOK?

#### **Electronic versions exist**

- To improve the management and traceability of data
- To simplify the search for information
- To optimize reporting
- To facilitate teamwork and collaborations
- To better take into account the needs and constraints of certain disciplines such as the Humanities and Social Sciences, Information and Communication Technologies, etc.

But they are often difficult to implement and have high purchase costs. The LIEU Network is considering this other version of the laboratory notebook.

### **HOW TO GET IT**

Interface Entreprises-Université: ulgpatents@uliege.be

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This PDF version gives an overview of the document. Please contact the <u>Interface</u> to access and fulfil the electronic version.

#### CONFIDENTIAL

# This document is an essential preliminary to any procedure related to the protection of research results.

The purpose of this document is to collect the information required to understand the results of scientific research and to evaluate these results for protection and commercial potential. To this end, it contains a technical section and a section concerned with the economic opportunities afforded by the results. These aspects in combination will enable a decision to be made as to the best method of exploitation.

Any university is faced with choices when it intends to disseminate and exploit the results of its scientific research. Should they publish the results, keep them secret or exploit them by means of a spin-off, collaborative research with industry. Should they protect them by means of a patent, a drawing and model, or a brand?

It is important to realize that the entire exploitation process can prove costly. In order to maximize the return on the effort, time and money expended by knowledge transfer officers and researchers, it is appropriate to clarify a few points:

- 1. Usable results are a set of new results that can be exploited industrially or commercially, it is therefore inadvisable to begin a complete process of exploitation when the commercial potential is limited (for example, more advantageous alternatives are already on the market; the market is too restricted or immature, etc).
- 2. An invention does not necessarily form the subject of a patent application. It is important to bear in mind that other methods of exploitation can be taken up, depending on the context. The non-technical section of the invention disclosure therefore proves its worth here, since it makes it possible to specify the general context and evaluate the opportunity to select one method of exploitation over another.
- 3. The exploitation procedure is a long-term partnership between researchers and the Knowledge Transfer Office (KTO). As such, both parties need to assess the importance of investing time and effort in the process.
- 4. Any researcher wishing to give an industrial dimension to his research will need to show prudence in reporting his results and in making use of the tools provided material transfer agreement (MTA), confidentiality agreements, etc.

The role of knowledge transfer officers is to support the researcher in the exploitation process. Thus, we remain at your service for any assistance you think it might be useful to obtain.

DISTRIBUTION: Please submit the completed disclosure form by e-mail or via postal mail to your KTO.





### I. General information

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### To be completed by the researcher

Title of the invention:

Inventor in charge of the file

Last name: Institution: E-mail: First name: Unit: Phone:

Fo	<b>r KTO</b> (Knowl	ledge Transfer Office)	use only
File number:			
File manager:			
Date:			
KTO recommendations:			
Co-ownership:			
ULB    %       UNamur    %       ULg    %       UCL    %	UMONS [ USaint Louis [ SynHERA – HE:	% Other:    % Other:     to fill in%	to fill in% to fill in%
Methods of exploitation contem Publication Research project	<b>plated:</b> Patent Spin-off	License 🛛 🗌 Biological material 🗌	Software 🔲 Other :

# **1.a. Description of the invention:** provide a brief general description of the invention, list 5 keywords and if required include a schema/picture.

(Please include full description in English in an appendix).





**1.b. Scientific sectors and application:** list the scientific and the application sectors that you think that might benefit from your invention.

		Scientific sectors	Application sectors
1. Natural sciences	1.1 Mathematics (includes research on statistical methodologies but excludes applied statistics which should be classified under the relevant field of application)		
	1.2 Computer and information sciences (hardware development to be 2.2, social aspect to be 5.8)		
	1.3 Physical sciences		
	1.4 Chemical sciences		
	1.5 Earth and related environmental sciences (includes oceanography, hydrology)		
	1.6 Biological sciences (medical to be 3, agricultural to be 4)		
	1.7 Other natural sciences		
2. Engineering	2.1 Civil engineering		
and technology	2.2 Electrical, electronic and information engineering		
	2.3 Mechanical engineering (includes nuclear engineering but nuclear physics to be 1.3)		
	2.4 Chemical engineering		
	2.5 Materials engineering (nanoscale materials to be 2.10, biomaterials to be 2.9)		
	2.6 Medical engineering (biomaterials to be 2.9)		
	2.7 Environmental engineering		
	2.8 Environmental biotechnology		
	2.9 Industrial biotechnology		
	2.10 Nanotechnology (nanomaterials and nano-processes, biomaterials to be 2.9)		
	2.11 Other engineering and technologies		
3. Medical and	3.1 Basic medicine (plant science to be 1.6)		
health sciences	3.2 Clinical medicine		
	3.3 Health sciences (includes services, sport, social biomedical sciences, ethics)		
	3.4 Medical biotechnology		
	3.5 Other medical sciences		
4. Agricultural	4.1 Agriculture, forestry and fisheries (agricultural biotechnology to be 4.4)		
sciences	4.2 Animal and dairy sciences (animal biotechnology to be 4.4)		
	4.3 Veterinary sciences		
	4.4 Agricultural biotechnology		
	4.5 Other agricultural sciences		
5. Social sciences	5.1 Psychology (includes therapy for learning, speech, hearing and other disabilities)		
	5.2 Economics and business		
	5.3 Educational sciences (includes training, pedagogy, didactics)		
	5.4 Sociology		
	5.5 Law	Π	
	5.6 Political sciences		
	5.7 Social and economic geography (transport engineering to be 2.1)		
	5.9 Modia and communications		
6 Humanities	5.5 Units sould sublikes		
o. numanities	6.1 HISTORY and archeology (history of science and technology to be 6.3)		<u> </u>
	6.2 Languages and literature	<u> </u>	<u> </u>
	6.3 Philosophy, ethics and religion	<u> <u> </u></u>	<u> <u> </u></u>
	6.4 Arts, history of arts, performing arts, music		
	6.5 Other humanities		
7. Other	To describe		





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**1.c. NEED/NEW:** in the related fields, which problem or need is addressed by this invention? Does the Invention meet an unmet need or answer an unsolved problem? Why/How?

**1.d. ADVANTAGES:** define the solution this invention brings to solve this problem. What are the novel aspects of your invention? What's the "invention core"? (Technical features, functions and advantages/results?)

**1.e. OTHER APPLICATIONS:** try to think out of the box; which other applications might be envisaged if your invention would go through adjustments; and what would these adjustments be?





I. General information

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

CHEAPER. The invention is cheaper to make or use than currently available products or processes.         Why/How?:         EASIER TO USE. The product or process is less complicated, less labor intensive, more user friendly than currently available products or processes.         Why/How?:         EASIER TO MAKE. The product is less complicated to make, or its manufacturing process is less complex than those of currently available products.         Why/How?:         SAFER. The product or processes.         Why/How?:         SAFER. The product or processes.         Why/How?:         MORE ECOLOGICAL. The product or process recycles materials that normally end up in landfill site: or is less polluting than currently available products or processes.         Why/How?:         MORE FOLOGICAL. The product or process works faster than currently available products or processes.         Why/How?:         MORE PRECISE. The product or process works faster than currently available products or processes.         Why/How?:         MORE ATTRACTIVE. The product or processes.         Why/How?:         CLEAR VALUE. Other products or processes.         Why/How?:         CLEAR VALUE. Other product or processes are so similar that the virtue of this product/process will be readily apparent.         Why/How?:         BETTER SIZE. The product is more compact, or is larger and with greater capacity, than currently available products. <th>Yes</th> <th>No</th> <th>?</th> <th></th>	Yes	No	?	
Image: style="text-align: center;">processes:         Image: style="text-align: center;">Why/How?:         Image: style="text-align: center;">EASIER TO USE: The product or process is less complicated, less labor intensive, more user friendly than currently available products or processes.         Image: style="text-align: center;">Why/How?:         Image: style="text-align: center;">SAFER: The product is less complicated to make, or its manufacturing process is less complex than those of currently available products.         Image: style="text-align: center;">Why/How?:         Image: style="text-align: center;">SAFER: The product or process is safer for the operator, bystanders or animals than currently available products or processes.         Image: style="text-align: center;">Why/How?:         Image: style="text-align: center;">MORE ECOLOGICAL: The product or process recycles materials that normally end up in landfill sites or is less polluting than currently available products or processes.         Image: style="text-align: center;">Why/How?:         Image: style="text-align: center;">MORE ECOLOGICAL: The product or process works faster than currently available products or processes.         Image: style="text-align: center;">Why/How?:         Image: style="text-align: center;">MORE PRECISE: The product or process vields more accurate results than those usually achieved using currently available products or processes.         Image: style="text-align: center;">Why/How?:         Image: style="text-align: center;">CELEAR VALUE: Other product or processes.         Image: style="text-align: center;"				CHEAPER. The invention is cheaper to make or use than currently available products or
Why/How?:         EASIER TO USE. The product or process is less complicated, less labor intensive, more user friendly than currently available products or processes.         Why/How?:         EASIER TO MAKE. The product is less complicated to make, or its manufacturing process is less complex than those of currently available products.         Why/How?:         SAFER. The product or process is safer for the operator, bystanders or animals than currently available products or processes.         Why/How?:         MORE ECOLOGICAL. The product or process recycles materials that normally end up in landfill site:         or is less polluting than currently available products or processes.         Why/How?:         MORE ECOLOGICSE. The product or process yields more accurate results than those usually achieved using currently available products or processes.         Why/How?:         MORE PRECISE. The product or process yields more accurate results than those usually achieved using currently available products or processes.         Why/How?:         MORE ATTRACTIVE. The product or processes are so similar that the virtue of this product/process will be readily apparent.         Why/How?:         CLEAR VALUE. Other product is more compact, or is larger and with greater capacity, than currently available products.         Why/How?:         BETTER SIZE. The product is lighter or heavier whichever is preferable, than currently available products.         Why/How?:         BETTER SI				processes.
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Why/How?				processes over a number of years.
VVIII/ NOW ::		┟───┤		WILY, TOW:.
$\square$				available products or processes that users or manufacturers will easily be able to switch





#### I. General information

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			Why/How?:
			HIGHER PROFIT MARGIN. Their product or process is easier and cheaper to make than currently available products or processes, but can be sold at a comparable price.
1.g. :	specif	y the p	positioning of your invention on the market
			LASTING MARKET. The need or demand for the product will last for a very long time.
			Why/How?:
			LARGE MARKET. There is already a large market for this product or process, or the appeal of the
			product or process can be expected to create a large market where none previously existed.
			Why/How?:
			HARD TO DUPLICATE. Competitors will have difficulty producing an equivalent product or process,
			or in solving problems without it.
			Why/How?:

#### 2. Type of invention

new compound, molecule	new production process
new product	new use for a known product / process
new device	new method
new service	other, please explain:

#### 3. Oral and/or written public disclosures made by inventors

 By checking the appropriate box, please indicate whether this invention, in full or in part,

 has been subject to a disclosure
 Yes No

 will be subject to a disclosure
 Yes No

 Please supply copies of documents that have been or will be subject to a disclosure.
 Yes No

Type of disclosure <sup>1</sup>	Medium <sup>2</sup>	Date of disclosure	Reference	NDA <sup>3</sup>	Document
				Yes	upload
				Yes	upload
				🗌 Yes	upload

<sup>1</sup> Type of disclosure : Written, past; Written, upcoming; Oral, past; Oral, upcoming

<sup>2</sup> Medium : Journal article, Private thesis (master or doctoral), Public thesis (master or doctoral), Abstract, Conference/seminar, Poster session, Project report, Grant application, Industry meeting, Other

<sup>3</sup> Non-Disclosure Agreement. *Please supply a copy of the non-disclosure agreement*.

A sequence (DNA, protein, etc.) has been placed on a database or biological material (plasmid, microorganism, ...) has been deposited in a collection? Yes No NA

If Yes please mention the database or the collection:.....





#### I. General information

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4. Funding. If you have benefited from funding, even if only in part, at any stage of the research, please state the source by filling in the appropriate boxes below. If the funding contract includes conditions relating to ownership of results of the research, please enclose the contract as appendix, together with a copy of the scientific program.

Type <sup>1</sup>	Name/acronym	Duration	Nature of the contract	Industrial sponsor/patron

<sup>1</sup> Type : European, Regional (Walloon Region, etc.), National (FNRS, etc.), Internal funding, Other

#### 5. Contractual background:

- Does the invention incorporate any material supplied by a third party?
- Yes No Yes No > Does the invention incorporate any confidential results supplied by a third party?

If yes, please supply a copy of the MTA (material transfer agreement) or CDA (confidential disclosure agreement)

#### 6. Laboratory notebooks:

- Is the invention described in / supported by laboratory notebooks?
- If so, are those notebooks available on request?

Yes	🗌 No
Yes	🗌 No





#### NOTICE :

This page is to be completed following the procedures put in place by the various universities and universities of applied sciences. Please contact your KTO for further information.

#### 1. Bibliographical search

Are there other research or industrial teams who work in the field of the invention? Yes No

If yes, please list and attach copies of any publications (oral or written) most closely related to the invention : 1.

2.

3.

What were the keywords used to perform the search?

A. Concepts	B. Keywords/synonyms
Concept 1:	
Concept 2:	
Concept 3:	
Concept 4:	
Concept 5:	
Exclusion concept :	

#### 2. Patent search

> Was a first search carried out by PICARRE in collaboration with the researchers

Yes date:....

If yes, please enclose the search strategy in an appendix, together with an analysis of previous work that is relevant in terms of its difference in relation to this invention and the drawn conclusions.

If not, has a search been carried out based on patents databases ?

Yes No

No

If yes, complete the following table:

ID	Keywords or classification code	Search tool	Search field	Number of documents	Number of relevant documents
1		to fill in	to fill in		
2		to fill in	to fill in		
3		to fill in	to fill in		
4		to fill in	to fill in		

Select the most relevant document(s) (1-3 docs) and explain in a few words the technical differences with your invention.

The most relevant document is generally the one that corresponds to a similar use and requires the minimum of structural and functional modifications to come to the invention





**3.a. Technology Readiness Level (TRL).** Select the most suitable TRL for the technology (TRLs may be not perfectly adapted to your specific technology, select what seems closest

IDEA	TRL 0 :Idea	Unproven idea/proposal. Paper concept. No analysis or testing has been performed.
	<b>TRL1</b> : Research and Development begins	Basic functionality/principles demonstrated by analysis. Shall show that the idea is technologically conceivable.
LAB SCALE	<b>TRL 2</b> : Basic principles confirmed	Analytic studies, small scale testing in laboratory environment. Shall show that the technology can is likely to meet specified objectives with additional development. Practical applications can be invented. Applications are speculative and there may be no proof or detailed analysis to support the assumptions.
	TRL 3: Validation at lab scale	Analytical studies and/or laboratory studies deliver results that validate predictions/objectives. If relevant, validation of separate elements of the technology. (Examples may include components that may not yet be integrated or representative)
	<b>TRL 4</b> : Prototype(s) available, first tests	Prototype(s) is/are built and functionality demonstrated through testing over a limited range of operating conditions. If scalable, these tests are realized on scaled versions.
OT SCALE	TRL 5: Prototype results at full scale	Prototype first use at full-scale: technology qualified through testing in intended environment, simulated or actual. The new hardware is now ready for first use.
	<b>TRL 6</b> : Prototype validated in relevant environment	A representative model/prototype is tested and validated in relevant environment. Represents a major step up in a technology's demonstrated readiness (Examples may include testing a prototype in a high-fidelity laboratory environment or in simulated operational environment).
KET SCALE	<b>TRL 7</b> : Operating system in operational environment	Technology integration is tested in operational environment. Full- scale technology is integrated for test into intended operating system with full interface and functionality. Requires demonstration of an actual system prototype in an operational environment.
MAR	TRL 8: Technology is proven to work	Test program is realized in intended environment: the technology shows acceptable performance and reliability over a period of time.
MARKET	TRL 9: Market	Actual application of technology is in its final form - Technology proven through successful operations.





**3.b. RESOURCES:** what are the key resources that are required to continue the development of your invention: people (yourself, lab team,...), lab involvement (team, identified research program,...), funding, need for external partner? Please indicate whether these resources are -and will remain- available.

**3.c.** ACTIVITIES: What are the key activities (lab analysis, prototyping, scaling-up, methods, know-how...) that are required to continue the development of your invention?

3.d. COMPETITORS: Why are the benefits significantly better than the competition? What are the alternatives?

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





III. Go to Market

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

Company	Have you had contacts with this company?	Contact Name	Position/Title	E-mail	Phone	Does this company already offer a similar product?
	🗌 Yes 🗌 No					🗌 Yes 🗌 No
	🗌 Yes 🗌 No					🗌 Yes 🗌 No
	🗌 Yes 🗌 No					🗌 Yes 🗌 No
	🗌 Yes 🗌 No					Yes 🗌 No

**3.f. Prototype availability**: Is a prototype available? If no, how much time is needed to obtain a prototype / sample / demonstration tool?

3.g. Are you interested by the creation of a spin-off company for the valorization of this discovery? 🗌 Yes	🗌 No
Who could be involved in that spin-off project?	

3.h. If the invention is licensed, would you be willing to collaborate with the licensing company as a principal or as a technical advisor? Yes No NA





### IV. Contributors to the invention

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#### CONTRIBUTORS

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

Last Name	Description of contribution to the invention
First Name	
Institution	
Research unit	
Phone	
Email	
Last Name	Description of contribution to the invention
First Name	
Institution	
Research unit	
Phone	
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#### SIGNATURES

<u>WARNING</u>: inventorship is a matter of law and the below list should include the name of all persons who may qualify as legal inventor. An incomplete list of inventors, or a list that includes persons who have not in fact contributed to the inventive work, may therefore result in the lapse or invalidity of a patent.

#### Inventors (to be signed before witnesses)

I have acquainted myself with the University's rules, which I accept.

My signature at the foot of this document confirms my agreement to the Research Department's administrative procedure for an invention disclosure. I agree to co-operate fully with the KTO by supplying any document or information required for the registration, upkeep and possible defense of patents, negotiations of license contracts and the exploitation of the results of my research. I undertake to sign any document required for the registration or issue of patent applications, also an inventor's agreement, whose purpose is to settle the method of distributing income earned by exploiting the invention. <u>I undertake not to disclose the invention either orally or in writing during the priority period of the patent application without notifying the KTO.</u>

Inventor #1		Inventor #2		
Last name:	First name:	Last name:	First name:	
Inventor's share (%):	Nationality:	Inventor's share (%):	Nationality:	
Private e-mail:		Private e-mail:		
Private phone no.:		Private phone no.:		
Legal address:		Legal address:		
Position:		Position:		
Funding: to fill in if other, pred	cise:	Funding: to fill in if other, pre	cise:	
Date & signature		Date & signature		
Inventor #3	- F	Inventor #4		
Last name:	First name:	Last name:	First name:	
Inventor's share (%):	Nationality:	Inventor's share (%):	Nationality:	
Private e-mail:		Private e-mail:		
Private phone no.:		Private phone no.:		
Legal address:		Legal address:		
Position:		Position:		
Funding: to fill in if other, pred	cise:	Funding: to fill in if other, pre	cise:	
Date & signature		Date & signature		
Inventor #5		Inventor #6		
Last name:	First name:	Last name:	First name:	
Inventor's share (%):	Nationality:	Inventor's share (%):	Nationality:	
Private e-mail:		Private e-mail:		
Private phone no.:		Private phone no.:		
Legal address:		Legal address:		
Position:		Position:		
Funding: to fill in if other, pred	cise:	Funding: to fill in if other, precise:		
Date & signature		Date & signature		

<u>Witnesses</u>. To be signed by two witnesses, including the head of department and an external witness (the last-named to be subject to a confidentiality agreement) who have understood the invention solely on the basis of this document.

On (<u>date</u>), I read this invention disclosure and understood its content. Last name, first name Signature

On (<u>date</u>), I read this invention disclosure and understood its content. Last name, first name

Signature





# **SOFTWARE DISCLOSURE FORM**

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This PDF version gives an overview of the document.
Please contact the Interface to access and fulfil the electronic version.

#### 1. SOFTWARE DISCLOSURE IDENTIFICATION

Date :

Contact Person:

Software Name :

Version Number :

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

#### Type of Development

Generic Software or Stand alone software	🗌 Database
Algorithm	Research Tool/Library
Арр	🗌 Game
Module/Plug-in	

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

#### Software protection information

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

Brand protected : no / yes : date and reference :

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

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

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

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

Support (manual/Online help/Tech support?)

Software Disclosure KTO contact : [nom du valorisateur]





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

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

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

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

#### 3. GENERAL INFORMATION

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

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

Software Disclosure KTO contact : [nom du valorisateur]





# **SOFTWARE DISCLOSURE FORM**

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

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

#### 4. MARKET POTENTIAL

#### 4.1. Specify the positioning of your software on the market

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

Software Disclosure KTO contact : [nom du valorisateur]





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

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

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

Company	Have you had contacts with this company?	Contact Name	Position/Title	E-mail	Phone	Does this company already offer a similar product?
	🗌 Yes 🗌 No					🗌 Yes 🗌 No
	🗌 Yes 🗌 No					🗌 Yes 🗌 No
	🗌 Yes 🗌 No					🗌 Yes 🗌 No
	Yes 🗌 No					Yes No

Software Disclosure KTO contact : [nom du valorisateur]





#### 5. CONTRIBUTORS

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

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

Software Disclosure KTO contact : [nom du valorisateur]





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

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

Software Disclosure

KTO contact : [nom du valorisateur]





# **SOFTWARE DISCLOSURE FORM**

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

Software Disclosure KTO contact : [nom du valorisateur]





# TRADEMARKS

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.

### WHY?

A trademark makes it possible for you to:

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

### **WHAT IS A TRADEMARK?**

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

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

### 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



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

### WHAT REQUIREMENTS ARE THERE?

#### • Distinctiveness

The sign must be neither descriptive nor generic

#### • Legality

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

#### • Availability

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

### **HOW TO FILE A TRADEMARK**

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

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

### 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.

### **USEFUL LINKS**

#### Trademarks databases

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

#### **Classification of products and services**

- <u>http://tmclass.tmdn.org/ec2</u>
- → <u>www.wipo.int/classificatons</u>

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

• In Benelux

Around  $\in$ 240 for 10 years for three classes and  $\in$ 37 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 <u>www.wipo.int/madrid/fr/fees/calculator.jsp</u> is a tool that can provide a quote.

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

### CONTACT

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# **COMMERCIAL SECRECY**

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



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### WHAT IS COMMERCIAL SECRECY?

A pretty broad concept that affects all researchers throughout their careers 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 COMMERCIAL SECRECY?

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 <u>unlawful acquisition, use and disclosure</u> (not yet transposed into Belgian law at the time of writing this memo)

### Your know-how is valuable!

# **COMMERCIAL SECRECY**

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

#### 2/2

### WHY RESORT TO COMMERCIAL SECRECY?

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

- cannot be protected by an intellectual property right
- must be kept secret for strategic reasons .
- In all instances, contact your KTO to define the most suitable protection strategy.

### **TO REFLECT ON**

#### The Coca-Cola Strategy

the Coca-Cola formula is the most famous example of a business 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 commercial 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
- do not reveal confidential information which are 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,

#### To find out more



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CONTACT

**Catherine Thiry** 









# **PLANT VARIETY RIGHTS**

What about protecting your new vegetal varieties?

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### WHAT IS IT?

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

### **TO PROTECT WHAT?**

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

#### **Examples**

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

### WHAT ARE THE REQUIREMENTS?

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

- New
- Distinctness
- Uniform
- Stable
- Suitable denomination

### **TO WHOM DO THE RIGHTS BELONG?**

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

## • by you in the exercise of your duties and/or your research at your institution and/or with the means made available by the latter:

- → the rights probably belong to your institution.
- by two or more persons:
  - + the right is jointly owned by these people or their beneficiaries or their respective sucessors, 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.

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 aigainst a commercial fee to be negociated.

### **HOW LONG DOES LEGAL PROTECTION LAST?**

- **Belgian protection:**
- > 30 years for trees, vines and potatoes
- 25 years for other plant species >

Community protection (for all other member countries of the European Union either together or on a per country basis):

- 30 years for trees and vines
- 25 years for other plant species

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

### **HOW CAN YOU PROTECT THIS NEW PLANT VARIETY?**

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

### WHO BEARS THE COSTS?

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

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

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

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

- In Belgium
- At Community level

**USEFUL LINKS** 

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



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# **DESIGNS OR MODELS**



### WHAT IS A DESIGN OR MODEL?

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

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

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



### **WHY FILE?**

- → To ensure creations are effectively protected
- → To stand out from the competition

→ To increase the economic value (registration results in value added)

- → To have a future development tool
- To increase awareness

### WHAT ARE THE CONDITIONS?

To be valid, a design or model must meet several conditions:

#### → Novelty

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

#### **BE CAREFUL!**

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

#### Individual character

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

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

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

# **DESIGNS OR MODELS**

### WHAT IS THE PROCEDURE?

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

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

#### • The Benelux Office of Intellectual Property (BOIP)

For protection in Benelux (Benelux drawing or model)

#### • EUIPO

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

#### • <u>WIPO</u>

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 model system, for protection that is limited territorially to this specific territory (a search must be carried out based on the country of interest)

#### **ONE NOTABLE EXCEPTION**

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

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

#### **MORE INFO**

### FOR HOW LONG?

In the majority of cases:

- 5 years from the date of the filing, renewable 4 times successively up to a maximum of 25 years.
- a design or model 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 drawings and models have not yet been disclosed)
- Soon after the creation of the design or model
- → Contact your KTO as soon as possible!

### CONTACT

#### **Elodie Naveau**

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# **COPYRIGHT 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, wathever the medium.

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

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

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

### WHO IS THE AUTHOR, THE OWNER OF THE COPYRIGHT?

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

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

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# **COPYRIGHT PROTECTING YOUR ORIGINAL WORK**



### WHAT ARE THE RIGHTS OF THE AUTHOR?

#### Moral rights

*Right of disclosure, right to claim authorship, right of integrity.* 

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

#### Economic rights

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

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

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

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

### **EXCEPTIONS**

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

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

### CONTACT

#### **Catherine Thiry**

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# PATENT

#### What happens when a patent application is filed?

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



# **TRANSFER OR COLLABORATION OPPORTUNITIES**

to offer visibility to your research

1/2



### **SPECIFICALLY**

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

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

### WHY?

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

### **ADD VALUE**

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

### TRL SCALE (TECHNOLOGY READINESS LEVEL)

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

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

### **TYPES OF PARTNERSHIP**

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

# **TRANSFER OR COLLABORATION OPPORTUNITIES**

to offer visibility to your research

### WHO WRITES IT UP AND FOR WHOM?

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

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



### WHEN?

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

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

### CONTACT

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## THE BUSINESS MODEL CANVAS

A strategic management and entrepreneurial tool

1/2



### **A LITTLE BIT OF HISTORY**

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

The Business Model Canvas was born!

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

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

### WHAT?

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



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

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

### CONTACT

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

# THE BUSINESS MODEL CANVAS

A strategic management and entrepreneurial tool

2/2



#### **VALUE PROPOSITION**

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

#### **KEY PARTNERS**

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

#### **KEY ACTIVITIES**

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

#### **KEY RESOURCES**

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

#### **COST STRUCTURE**

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

#### **CUSTOMER SEGMENTS**

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

#### **CUSTOMER RELATIONSHIPS**

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

#### **CHANNELS**

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

#### **REVENUE STREAMS**

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









## THE SOCIAL BUSINESS MODEL CANVAS

To structure ideas and actions in a reasonable manner!



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

A social enterprise is a business

• the main objective of which is to **have a social impact** rather than generating profit for its owners or 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.

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

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### WHY CHOOSE A Social Business Model Canvas?

Submitting to this allows the social entrepreneur:

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

### **IN PRACTICAL TERMS**

The SOCIAL business model canvas allows the:

• understanding, design, articulation and discussion of the heart of the concept;

• testing and development of prototypes to see if it is possible to passionately believe the impact of the project and its economic viability.

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

#### 1/2

# THE SOCIAL BUSINESS MODEL CANVAS

To structure ideas and actions in a reasonable manner!

2/2

### WHAT IS THE DIFFERENCE WITH THE INITIAL TOOL?

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

#### **VALUE PROPOSITION**

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

#### **KEY RESOURCES**

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

#### **KEY PARTNERS**

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

#### SURPLUS

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

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

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

More info







