KNOWLEDGE TRANSFER AND ITS PROCESS CHECKLIST FOR THE RESEARCHER LiEU LIAISON ENTREPRISES-UNIVERSITÉS Erkki Makkonen © Fotolia

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



for the researcher

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

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



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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 and HEI of the Fédération Wallonie-Bruxelles (SynHERA, UCL, ULB, ULiège, UMONS, UNamur, USL-B)

According to Erkki Makkonen © Fotolia

USER GUIDE



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



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

- i Click and access a potentially useful focus area throughout your search
- i Click and access an explanatory sheet
- Some forms are not yet clickable information is being created



Get **HELP**



CONTACT an advisor from your KTO

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

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

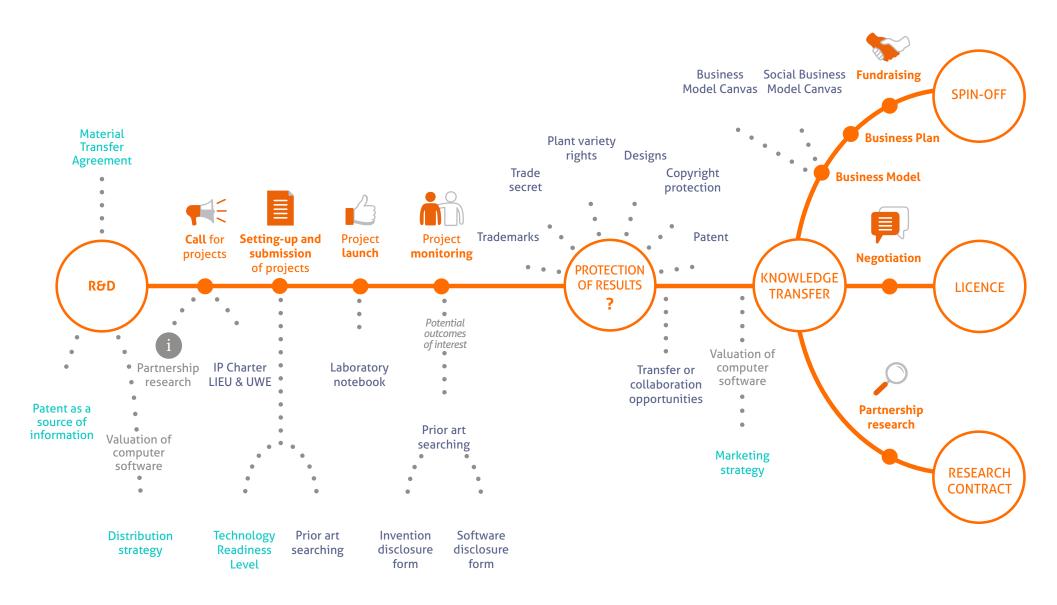
Have fun surfing and reading!

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.















1/2

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

SOFTWARE . SOURCE CODE



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



TO DEFINE WHAT?

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

BUT ALSO PRACTICAL ARRANGEMENTS

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

WHEN?

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

WHO SIGNS IT?

The MTA is concluded between legal entities.

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

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.

CONTACT

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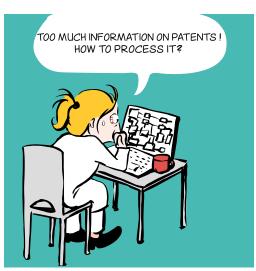
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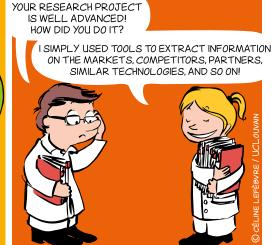










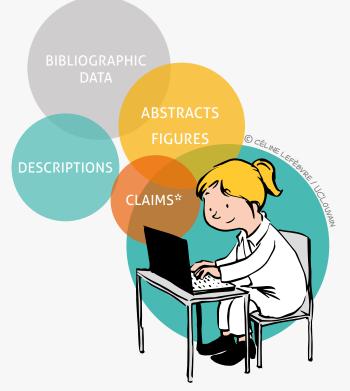


WHY?

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

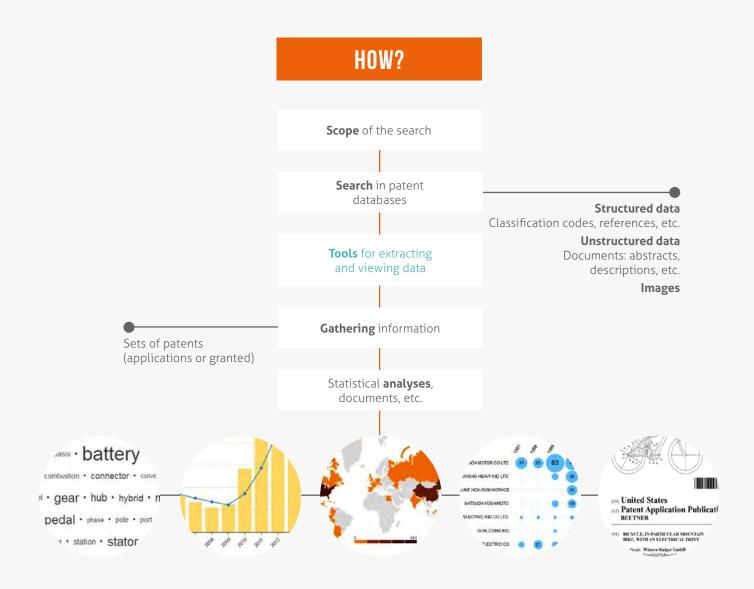
PATENTS = AVAILABLE INFORMATION

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



* The claims define the scope of the legal protection

Patent applications contain technical, economic and legal information.



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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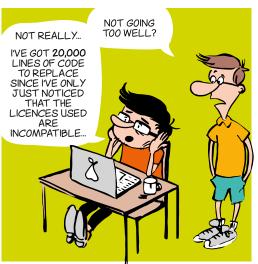
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WHAT SHOULD I CARE ABOUT?

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:

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

SONAROUBE

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.













WHAT IS IT?

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

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

WHY?

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

WHO IS IT FOR?

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

WHAT DOES IT APPLY TO?

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

WHEN SHOULD IT BE REFERRED TO?

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

KEY DEFINITIONS

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

KEY POINTS TO REMEMBER

OVERARCHING PHILOSOPHY

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

All partners will focus on creating added value in Wallonia.

OWNERSHIP

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

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

PROTECTION — CONFIDENTIALITY — PUBLICATION

Partners will ensure they:

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

RIGHT OF ACCESS TO PRE-EXISTING KNOW-HOW

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

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

USAGE RIGHTS OVER THE FINDINGS

- Each partner may freely use the findings of which they are owner, subject to the rights they have granted to the other partners.
- If industrial partners involved in the project:

→ are not the owners of the findings

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

→ are owners of the findings

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

CONTACT

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



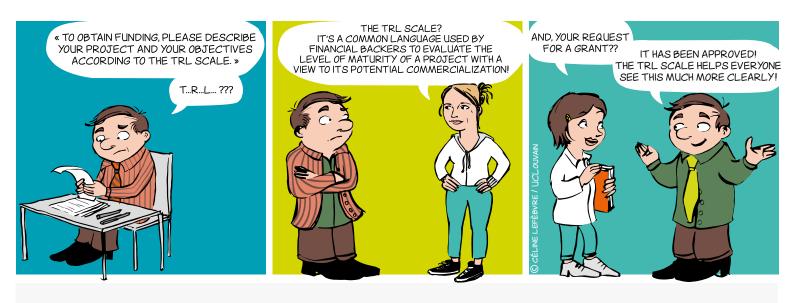








A scale of maturity and a tool to help innovate and collaborate



WHAT?

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

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

TECHNOLOGY READINESS LEVELS



















EXPLORATION

MARKET ORIENTATION

EXPLOITATION

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

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

WHY?

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

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

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

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

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

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

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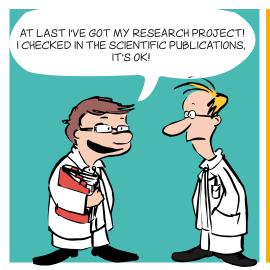
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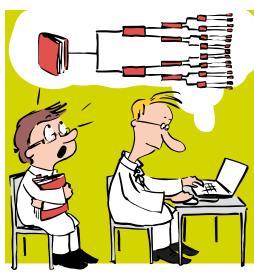












WHY?

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

WHAT IS A PATENT?

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

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

Patent = technical solution to a technical problem

WHAT ARE THE CONDITIONS FOR AN INVENTION TO BE PATENTABLE?

- Novelty
- Inventive step
- → Industrial applicability

WHAT IS PRIOR ART SEARCHING?

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

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

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

HOW?

- 1) Conduct a prior art search BEFORE filing a research project or patent application.
- 2) **Define** the technical problem you want to resolve.
- 3) Stay alert to everything that is/has been published by third parties or by inventors themselves! (patent application, scientific article, presentations by public speakers, article in non-specialist journal, invention exhibition at a trade show, commercialization of inventions, etc.) since these form part of the state of the art and are therefore likely to kill the novelty and/ or inventiveness of an invention.
- **4) Know the state of the art in the field** in question so that you can distinguish what is commonly known from what will be innovative.

- 5) Prepare your research strategy by combining various search parameters: key words, classification codes, names of applicants (partners, competitors) or of inventors and citations. Adapt it using an iterative process based on documents found. Document it so that you don't lose the main thread!
- **6)** Use **public databases** that are free to use (or free in part) as a first line approach.
- **PatentInspiration**

http://www.patentinspiration.com

Esp@cenet

http://worldwide.espacenet.com

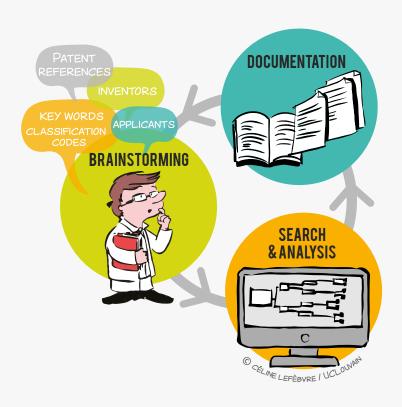
Google Patents

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.



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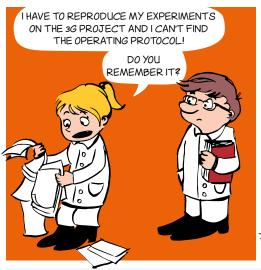
















WHY?

- → **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

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

- → ULB: delphine.stordeur@ulb.ac.be
- → UNamur: secretariat.adre@unamur.be
- ULiège: ulgpatents@uliege.be
- → UCLouvain: jessica.venicx@uclouvain.be pascal.colson@uclouvain.be
- → UMONS: economat@umons.ac.be
- → Higher Education Institutions: lazzaro.n@synhera.be

CONTACT

LIEU Network









This PDF version gives an overview of the document.

Please contact the <u>LIEU Network</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:

- 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.



To be completed by the researcher					
Title of the invention:					
Inventor in charge of the file					
Last name:	First name:				
Institution:	Unit:				
E-mail:	Phone:				
For K1	TO (Knowledge Transfer Office) use only				
File number:					
File manager:					
Date:					
KTO recommendations:					
_ =	DNS% Other: to fill in% nt Louis% Other: to fill in% HERA – HE: to fill in%				
Methods of exploitation contemplated Publication Pate Research project Spin-	nt License Software				
1.a. Description of the invention: princlude a schema/picture. (Please include full description in Eng	rovide a brief general description of the invention, list 5 keywords and if required glish 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	一百	一百
	5.6 Political sciences		
	5.7 Social and economic geography (transport engineering to be 2.1)	$\overline{}$	
	5.8 Media and communications		
	5.9 Other social sciences		
6. Humanities	6.1 History and archeology (history of science and technology to be 6.3)		
o. Hamanities			
	6.2 Languages and literature		<u> </u>
	6.3 Philosophy, ethics and religion		
	6.4 Arts, history of arts, performing arts, music		<u> </u>
	6.5 Other humanities		
7. Other	To describe		



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?



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

Yes	No	?	
			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 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 sites
			or is less polluting than currently available products or processes.
			Why/How?:
			FASTER. The product or process works faster than 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 would appeal to a broader segment of the market than the
			products currently on the market.
			Why/How?:
			CLEAR VALUE. Other products 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.
			Why/How?:
			BETTER WEIGHT. The product is lighter or heavier whichever is preferable, than currently
			available products.
			Why/How?:
			MOST DURABLE. The product is more durable than currently available products.
			Why/How?:
			MORE RELIABLE. The product breaks down less frequently, or the process is more consistently
			successful, than with currently available products or processes.
			Why/How?:
	_		EASIER TO FIX. The product is less complicated or costly to fix or adjust than currently available
			products.
			Why/How?:
			GROWING MARKET. There has been steady growth in the target market for your product or
			processes over a number of years. Why/How?:
			EASY FOR MANUFACTURERS TO SWITCH. The product or process is sufficiently similar to currently
			available products or processes that users or manufacturers will easily be able to switch.



			Why/How?:						
			HIGHER PROFIT MA	RGIN. Their produ	ct or process is easier and cheap	er to make than	currently		
□ □ □ available products or processes, but can be sold at a comparable price.									
			Why/How?:						
1.g.	specif	y the	oositioning of your in						
			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									
			·	can be expected to	create a large market where nor	ne previously exi	sted.		
			Why/How?:						
				•	have difficulty producing an equi	ivalent product c	or process,		
			or in solving probler Why/How?:	ns without it.					
			willy/110w:.						
2. Typ	e of i	nventi	on						
	r	new co	mpound, molecule		new production process				
	r	new pr	oduct		new use for a known prod	duct / process			
	r	new de	vice		new method				
	r	new se	rvice		other, please explain:				
By cho	ecking <u>een su</u>	the a bject	to a disclosure 🗌 Yes	e indicate whether No	this invention, in full or in part, will be subject to a disclosure be subject to a disclosure.]Yes No□			
	Туре		Medium ²	Date of	Reference	NDA ³	Document		
d	isclosı	ıre ¹		disclosure			<u> </u>		
						☐ Yes	upload		
						☐ Yes	upload		
	C 11		: Written, past; Writter			☐ Yes	upload		
² Med Post	ium : J er sess Disclos	ournal ion, Pr sure Ag equen	article, Private thesis (i oject report, Grant appl reement. <i>Please supply</i>	master or doctoral), ication, Industry me a copy of the non-dict.) has been place	Public thesis (master or doctoral), A eting, Other isclosure agreement. ed on a database or biological				
If Yes			tion the database or t						



INVENTION DISCLOSURE FORM

I. General information

7/13

			_		the research, please state the ditions relating to ownership of
result	s of the researc	h, please enclose the	contract as appen	dix, together with a copy	of the scientific program.
	Type ¹	Name/acronym	Duration	Nature of the contra	ct Industrial sponsor/patron
¹ Type	: European, Regi	onal (Walloon Region, e	tc.), National (FNRS,	etc.), Internal funding, Oth	er
5. Con	tractual backg	round:			
>		ention incorporate any			Yes No
>	Does the inve	ention incorporate any	confidential resu	Its supplied by a third par	rty?
	If yes, pl		f the MTA (mater	ial transfer agreement)	or CDA (confidential disclosure
6. Lab	oratory notebo	ooks:			
>	Is the inventi	on described in / supp	orted by laborato	ry notebooks?	Yes No
>	If so, are thos	se notebooks available	e on request?		Yes No



INVENTION DISCLOSURE FORM

II. Prior Art 8/13

NOTICE :			
This page is to be completed following the procedures		the various universiti	es and universities of
applied sciences. Please contact your KTO for further inf	ormation.		
Bibliographical search Are there other research or industrial teams who work If yes, please list and attach copies of any publications (1.			
2.			
3.			
What were the keywords used to perform the search?			
A. Concepts	B. Keywor	ds/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 c	collaboration with	the researchers	
Yes date:		☐ No	
If yes, please enclose the search strategy in an	appendix, togeth	er with an analysis of	previous work that is
relevant in terms of its difference in relation to the	his invention and	the drawn conclusions	5.
If not, has a search been carried out based on pa	atents databases	? Yes	☐ No
If yes, complete the following table:			
Keywords or		Number of	Number of relevant

ID	classification code	Search tool	Search field	documents	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



III. Go to Market 9/13

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

auapteu ti	ed to your specific technology, select what seems closest					
IDEA		TRL 0 :ldea	Unproven idea/proposal. Paper concept. No analysis or testing has been performed.			
		TRL1: Research and Development begins	Basic functionality/principles demonstrated by analysis. Shall show that the idea is technologically conceivable.			
LAB SCALE		TRL 2: 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)			
		TRL 4: 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.			
PILOT 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.			
) II O		TRL 6: 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).			
MARKET SCALE		TRL 7: 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	Ш	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.			



INVENTION DISCLOSURE FORM

III. Go to Market

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?



INVENTION DISCLOSURE FORM

you have a	contact at any of	these comp	anies, be sure to	provide nam	e, position, e	-mail and telephone	e. (W
	ermission before				·	·	
			T			Does this	
	Have you had	Contact				company	
Company	contacts with this company?	Name	Position/Title	E-mail	Phone	already offer a similar	
	<u> </u>					product?	
	Yes No					Yes No	
	Yes No					Yes No	
	Yes No					Yes No	
f. Prototype monstratio		prototype av	ailable? If no, hov	w much time	is needed to	obtain a prototype	/ sam
g. Are you i	nterested by the	creation of a	spin-off company	y for the valc	orization of th	nis discovery?	s [
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				y for the valo	orization of th	nis discovery?	s [



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



V. Signatures 13/13

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. I undertake not to disclose the invention either orally or in writing during the priority period of the patent application without notifying the KTO.

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, pre	cise:	Funding: to fill in if other, pre	ecise:		
Date & signature		Date & signature			
Inventor #3		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, pre	cise:	Funding: to fill in if other, precise:			
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, pre	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 $(\underline{\text{date}})$, I read this invention disclosure and understood its content. Last name, first name Signature

On $(\underline{\text{date}})$, I read this invention disclosure and understood its content. Last name, first name Signature



This PDF version gives an overview of the document.

Please contact the <u>LIEU Network</u> to access and fulfil the electronic version.

SOFTWARE DISCLOSURE IDENTIFICATION					
Date :					
Contact Person:					
Software Name :					
Version Number :					
2. SOFTWARE DEVELOPMENT INFORMATION					
Development Phase (final, beta, production) / Technology Readiness Level (see annex 1):					
Type of Development					
☐ Generic Software or Stand alone software ☐ Algorithm ☐ App ☐ Module/Plug-in ☐ Database ☐ Research Tool/Library ☐ Game					
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



3. GENERAL INFORMATION 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.		Holder	Name (d	or short description)	Lice	nse type (GNU, BSD etc.)
3. GENERAL INFORMATION 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. NEED: which problem(s) or need(s) is (are) addressed by this software? Does the software meeting and the softwar						
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value, list 5 keywords and if required include schema/pictures. NEED: which problem(s) or need(s) is (are) addressed by this software? Does the software mee						
unmet need or answer an unsolved problem? Why/How?						
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Software Disclosure



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. Why/How?				
			SIER TO MAKE. The software is less complicated/complex to develop than those rrently available on the market. ny/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 tha those currently on the market. Why/How?				
			CLEAR VALUE. Other software currently available on the market are so similar that the added value of this one will be readily apparent. Why/How?				
			MORE RELIABLE. The software breaks down less frequently, or is more consistently uccessful, than those currently available on the market. Why/How?				
			EASIER TO FIX. The software is less complicated or costly to develop and maintain than those currently available on the market. Why/How?				
	4. MARKET POTENTIAL						
4.1.9	Specify	the p	ositioning of your software on the market				
			LASTING MARKET. The need or demand for the software will last for a very long time. Why/How?				
			LARGE MARKET. There is already a large market for this software, or the appeal of the software can be expected to create a large market where none previously existed. Why/How?				
			GROWING MARKET. There has been steady growth in the target market for your software over a number of years. Why/How?				
		HIGHER PROFIT MARGIN. Their software is easier and cheaper to make than t currently available on the market, but can be sold at a comparable price.					

Software Disclosure



			Why/Hov	w?				
			EASY FOR USERS TO SWITCH. The software is sufficiently similar to those currently available on the market that users will easily be able to switch. Why/How?					
			HARD TO DUPLICATE. Competitors will have difficulty developing an equivalent software, or in solving problems without it. Why/How?					
tł	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).								
Cor	npany	con	e you had tacts with company?	Contact Name	Position/Title	E-mail	Phone	Does this company already offer a similar product?
	_	☐ Y	es 🗌 No					Yes No
		Y	es No					Yes No
			es No					Yes No
		[] Y	es 🗌 No					Yes No

Software Disclosure



5. CONTRIBUTORS

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

with your 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



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.
PILOT SCALE LAB 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.
	TRL 3: Feasibility - Analytical and experimental critical function and/or characteristic proof of concept	Active research and development is initiated. This included analytical studies to produce code that validates analytical predictions of separate software elements of the technology. Examples include software components that are not yet integrated or representative but satisfy an operational need. Algorithms run on a surrogate processor in a laboratory environment.
	TRL 4: Integrated prototype - Technology component and/or basic technology sub-system validation in laboratory environment	Basic software components are integrated to establish that they will work together. They are relatively primitive with regard to efficiency and reliability compared to the eventual system. System software architecture development initiated to include interoperability, reliability, maintainability, extensibility, scalability, and security issues. Software integrated with simulated current/legacy elements as appropriate.
	TRL 5: Product prototype - Technology component and/or basic sub-system validation in relevant environment	Reliability of software ensemble increases significantly. The basic software components are integrated with reasonably realistic supporting elements so that it can be tested in a simulated environment. Examples include "high fidelity" laboratory integration of software components. System software architecture established. Algorithms run on a processor(s) with characteristics expected in the operational environment. Software releases are "Alpha" versions and configuration control is initiated. Verification, Validation, and Accreditation initiated.
	TRL 6: Product demonstrator - Technology system/subsystem model or prototype demonstration in a relevant environment	Representative model or prototype system, which is well beyond that of level 5, is tested in a relevant environment. Represents a major step up in software demonstrated readiness. Examples include testing a prototype in a live/virtual experiment or in a simulated operational environment. Software run on processor of the operational environment are integrated with actual external entities. Software releases are "Beta" versions and configuration controlled. Software support structure is in development. Verification, Validation and Accreditation are in progress.
MARKE T SCALE	TRL 7: System prototype demonstration in an	Represents a major step up from Level 6, requiring the demonstration of an actual system prototype in an operational environment. Algorithms run on processor of the operational environment are integrated with

Software Disclosure

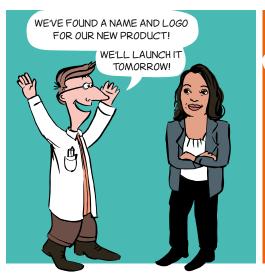


	operational environment	actual external entities. Software support structure is in place. Software releases are in distinct versions. Frequency and severity of software deficiency reports do not significantly degrade functionality or performance. Verification, Validation and Accreditation completed.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

Software Disclosure

KTO contact : [nom du valorisateur]









WHEN?

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

WHAT IS A TRADEMARK?

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

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

WHY?

A trademark makes it possible for you to:

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



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

First to file - first served!

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

WHAT REQUIREMENTS ARE THERE?

Distinctiveness

The sign must be neither descriptive nor generic

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.

ALSO...

The trademark may be cancelled for lack of

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

A sign can become generic:

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

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

USEFUL LINKS

Trademarks databases

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

Classification of products and services

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

HOW TO FILE A TRADEMARK

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

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

HOW MUCH DOES IT COST?

• In Benelux

Around €240 for 10 years for three classes and €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

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.

CONTACT

LIEU Network

contact@reseaulieu.be
+32(0)81/62.25.94













* Knowledge Transfer Office

WHAT IS TRADE SECRET?

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

Examples

- trade secret
- formulation
- recipe
- chemical compound

WHAT ARE THE CONDITIONS FOR PROTECTING TRADE SECRET?

The European legislator requires*:

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

Your know-how is valuable!

^{*} Directive (EU) 2016/943 of the European Parliament and of the Council of 8 June 2016 on the protection of undisclosed know-how and business information (trade secrets) against their unlawful acquisition, use and disclosure (not yet transposed into Belgian law at the time of writing this memo)

WHY RESORT TO TRADE SECRET?

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

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

TO REFLECT ON

The Coca-Cola Strategy

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

The Michelin strategy:

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

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

Until it became a victim of espionage...

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

More info

To find out more

A FEW THOUGHTS

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

CONTACT

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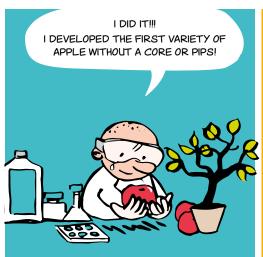
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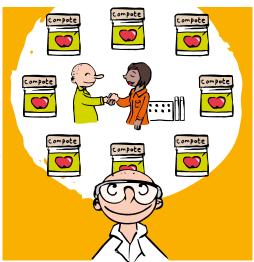






What about protecting your new vegetal varieties?







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.

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

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

HOW LONG DOES LEGAL PROTECTION LAST?

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

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

USEFUL LINKS

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

HOW CAN YOU PROTECT THIS NEW PLANT VARIETY?

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

WHO BEARS THE COSTS?

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

- · if the new plant variety rights belong to it
- if it takes a positive decision to protect it
- Contact your KTO who will ensure that appropriate steps are taken at the Office of Intellectual Property.

HOW MUCH DOES IT COST?

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

Fees grids

- In Belgium
- At Community level

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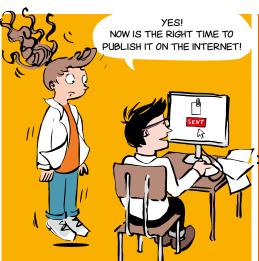
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* Knowledge Transfer Office

WHAT IS A DESIGN?

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

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

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



WHY FILE?

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

WHAT ARE THE CONDITIONS?

To be valid, a design must meet several conditions:

→ Novelty

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

BE CAREFUL!

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

→ Individual character

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

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

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

WHAT IS THE PROCEDURE?

- Above all, **check novelty** in the databases of the offices mentioned below with the help of your KTO
- Then **register/file** the design with:
- The Benelux Office of Intellectual Property (BOIP)

For protection in Benelux (Benelux designs)

EUIPO

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

WIPO

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

National Office

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

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.

ONE NOTABLE EXCEPTION

against any identical reproduction,

design is that the proof required to establish a copy is much more

MORE INFO

WHEN TO FILE?

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

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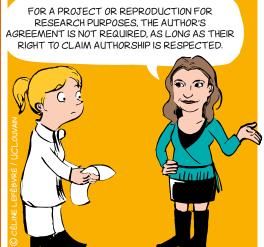
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WHAT ARE THE CONDITIONS FOR COPYRIGHT PROTECTION?

→ 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.



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

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.

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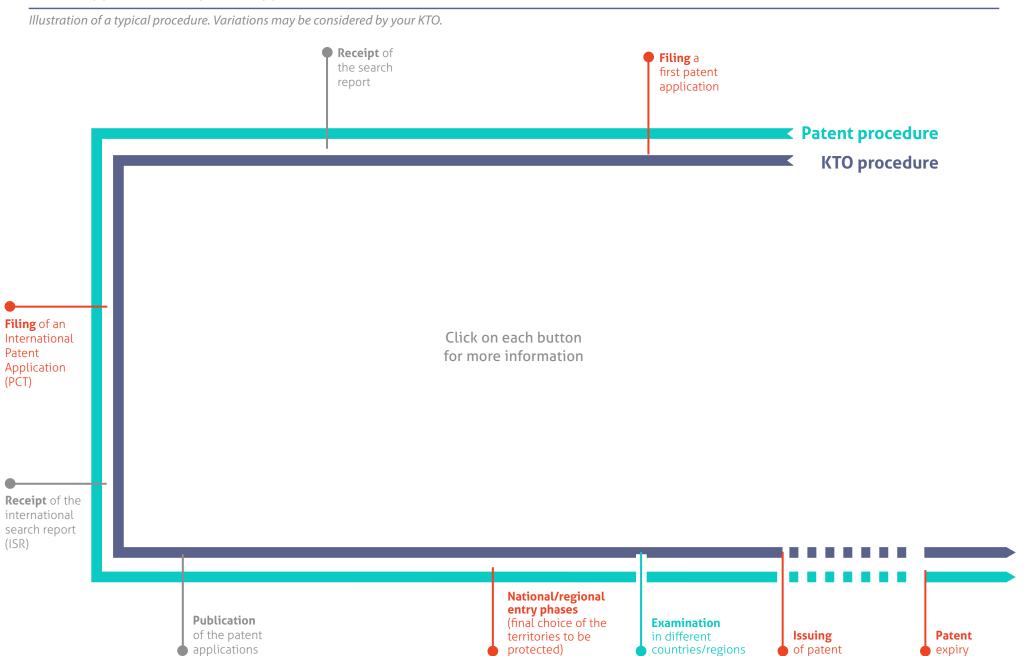


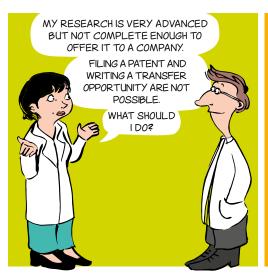




PATENT

What happens when a patent application is filed?









SPECIFICALLY

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

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

WHY?

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

ADD VALUE

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

TRL SCALE (TECHNOLOGY READINESS LEVEL)

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

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

TYPES OF PARTNERSHIP

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

WHO WRITES IT UP AND FOR WHOM?

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

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



WHEN?

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

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

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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.

PRODUCT

software, consultancy, hardware/software hybrid solution

6. REFERRED RETURN

economic revenue, visibility, societal impact, etc.

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

WHAT BUSINESS MODEL SHOULD YOU CHOOSE?

- 1. The quality and relevance of a Business Model
- is measured by its relevance to the needs of the market
- requires analysis of the expectations of the end users
- must rely on the strengths of the developed solution

The **SOFTWARE DISCLOSURE FORM**

2. Examples of business model

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

WHAT METHODS CAN YOU USE TO SET THE PRICE?

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

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

NPV (Net Present Value)

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

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

Replication cost

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

Compensation mechanisms are varied:

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

TOOLS

The COCOMO II method

technical debt is usually drawn.

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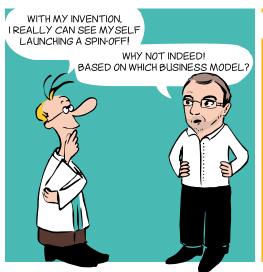




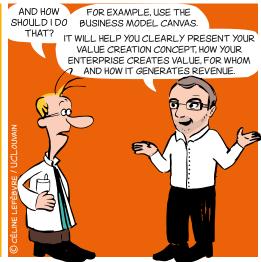




A strategic management and entrepreneurial tool







A LITTLE BIT OF HISTORY

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

The Business Model Canvas was born!

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

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

WHAT?

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

WHY?

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

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

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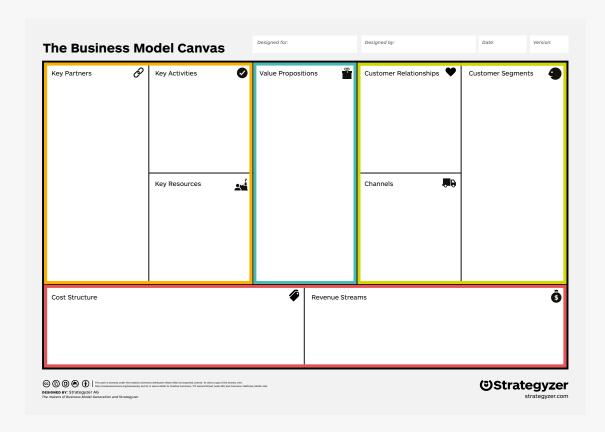
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Describe, design, challenge, invent and pivot your business model!

2/2

A strategic management and entrepreneurial tool



VALUE PROPOSITION

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

KEY PARTNERS

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

KEY ACTIVITIES

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

KEY RESOURCES

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

COST STRUCTURE

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

CUSTOMER SEGMENTS

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

CUSTOMER RELATIONSHIPS

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

CHANNELS

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

REVENUE STREAMS

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







To structure ideas and actions in a reasonable manner!







WHAT IS A SOCIAL ENTERPRISE?1

A social enterprise is a business

- the main objective of which is to have a social impact rather than generating profit for its owners or partners,
- which predominantly uses its surplus for these social objectives,
- which is managed by a social entrepreneur in a responsible, transparent and innovative manner, including combining employees, clients and stakeholders affected by its activities.
- ¹ Initiative for social entrepreneurship from the European Commission, Ref. Ares(2015)5946494, 18.12.2015, European

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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!

WHAT IS THE DIFFERENCE WITH THE INITIAL TOOL?

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

VALUE PROPOSITION

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

KEY RESOURCES

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

KEY PARTNERS

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

SURPLUS

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

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

Social Business Model Ca	CX) TANDEMIC			
Key Resources	Key Activities	Type of Intervention	Segments	Value Proposition
				Beneficiary Value Proposition
What resources will you need to run your activities? People, finance, access?		What is the format of your intervention? Is it a workshop? A service? A product?	Who benefits from your Beneficiary intervention?	impact ricasui es
Partners + Key		Channels 6	Customer 4	
Stakeholders				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?
Cost Structure		Surplus	Revenue	
What are your biggest expenditure areas?				
How do they change as you scale up?		Where do you plan to invest your profits?	Break down your revenue sources by %	

Inspired by The Business Model Canvas

More info







