**INVENTION DISCLOSURE**

**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.

This document has been adapted from the Invention Disclosure form of the LIEU network. 

**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 KTO** (Knowledge Transfer Office) **use only**

File number:

File manager:

Date:

KTO recommendations:

**Co-ownership:**

ULB [ ]  …..%

UNamur [ ]  …..% UMONS [ ]  …..% Other: …..%

ULg [ ]  …..% USaint Louis [ ]  …..% Other: …..%

UCL [ ]  …..% ADISIF – HE:  …..%

**Methods of exploitation contemplated:**

Publication [ ]  Patent [ ]  License [ ]  Software [ ]

Research project [ ]  Spin-off [ ]  Biological material [ ]  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 and technology** | 2.1 Civil engineering | [ ]  | [ ]  |
| 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 health sciences** | 3.1 Basic medicine *(plant science to be 1.6)* | [ ]  | [ ]  |
| 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 sciences** | 4.1 Agriculture, forestry and fisheries *(agricultural biotechnology to be 4.4)* | [ ]  | [ ]  |
| 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 | [ ]  | [ ]  |
| 5.6 Political sciences | [ ]  | [ ]  |
| 5.7 Social and economic geography *(transport engineering to be 2.1)* | [ ]  | [ ]  |
| 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)* | [ ]  | [ ]  |
| 6.2 Languages and literature | [ ]  | [ ]  |
| 6.3 Philosophy, ethics and religion | [ ]  | [ ]  |
| 6.4 Arts, history of arts, performing arts, music | [ ]  | [ ]  |
| 6.5 Other humanities | [ ]  | [ ]  |
| **7. Other** | To describe       | [ ]  | [ ]  |

**1.c. NEED:** 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 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.**Why/How?:**  |
| **1.g. specify the 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*.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Type of disclosure 1 | Medium 2 | Date of disclosure | Reference | NDA 3 | Document |
|       |       |       |       | [ ]  Yes  | *upload* |
|       |       |       |       | [ ]  Yes  | *upload* |
|       |       |       |       | [ ]  Yes  | *upload* |

1 Type of disclosure : Written, past; Written, upcoming; Oral, past; Oral, upcoming

2 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

3 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, micro-organism, ...) has been deposited in a collection? [ ]  Yes [ ]  No [ ]  NA

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

**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 1 | Name/acronym | Duration | Nature of the contract | Industrial sponsor/patron |
|       |       |       |       |       |
|       |       |       |       |       |
|       |       |       |       |       |

1 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
* Does the invention incorporate any confidential results supplied by a third party? [ ]  Yes [ ]  No

*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? [ ]  Yes [ ]  No
* If so, are those notebooks available on request? [ ]  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?

|  |  |
| --- | --- |
| * 1. ***Concepts***
 | * 1. ***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:………………… [ ]  No

*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

If yes, complete the following table:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ID** | **Keywords or classification code** | **Search tool** | **Search field** | **Number of documents** | **Number of relevant documents** |
| 1 |       |  |  |       |       |
| 2 |       |  |  |       |       |
| 3 |       |  |  |       |       |
| 4 |       |  |  |       |       |

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

|  |  |  |  |
| --- | --- | --- | --- |
| **RESEARCH** | [ ]  | **TRL1**: Basic principles observed and described | Basic functionality/principles demonstrated by analysis. Shall show that the idea is technologically conceivable. |
| [ ]  | **TRL 2**: Solution Concept and/or application formulated | Analytic studies, small scale testing in laboratory environment. Shall show that the idea can solve the considered problem.Practical applications can be invented. Applications are speculative and there may be no proof or detailed analysis to support the assumptions.  |
| [ ]  | **TRL 3**: Solution proof of concept. Feasibility Analysis | Analytical studies and/or laboratory studies deliver results that validate predictions/objectives. The feasibility study defines the solution specifications and the development strategy. |
| **MARKET ORIENTATION** | [ ]  | **TRL 4**: Integrated prototype validated in the lab environment  | Prototype(s) is/are built and basic functionality demonstrated through testing in the lab conditions.  |
| [ ]  | **TRL 5**: Prototype validated in a relevant environment  | Prototype tests in a relevantant environment: the critical functions of the solution/product are qualified through testing in intended simulated environment. |
| [ ]  | **TRL 6**: Product demonstrator validated in a relevant environment. | A representative model/prototype is tested and validated in relevant environment. All the prototype performances are qualified through testing in a high-fidelity simulated operational environment.  |
| **EXPLOITATION** | [ ]  | **TRL 7**: Product demonstrator validated in operational environment | A model conform to the final product with full functionality is produced and validated by a set of reference customers. In operational environment. |
| [ ]  | **TRL 8**: Commercial product qualified and available on the market. | The product is fully qualified for the intended market. The sale and distribution strategy are implemented. |
| [ ]  | **TRL 9**: Proven product on the market | Follow-up of the product on the market (Expansion, improvements, after-sale, …) |

**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?

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

**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 |       |
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| Research unit |       |
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| Institution |       |
| Research unit |       |
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| Email |       |

**SIGNATURES**

**WARNING: 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: if other, precise:       | Funding: if other, precise:       |
| 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: if other, precise:       | Funding: 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: if other, precise:       | Funding: if other, precise:       |
| Date & signature       | Date & signature       |

**Witnesses**. *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       (**date**), I read this invention disclosure and understood its content.

Last name, first name       Signature

On       (**date**), I read this invention disclosure and understood its content.

Last name, first name       Signature