



Inventor's Guide

Luris – Knowledge Exchange Office

The Luris Inventor's Guide is provided as a tool to help you get accustomed to all the key stages of turning an invention into a commercial product or to find a partner for your research.



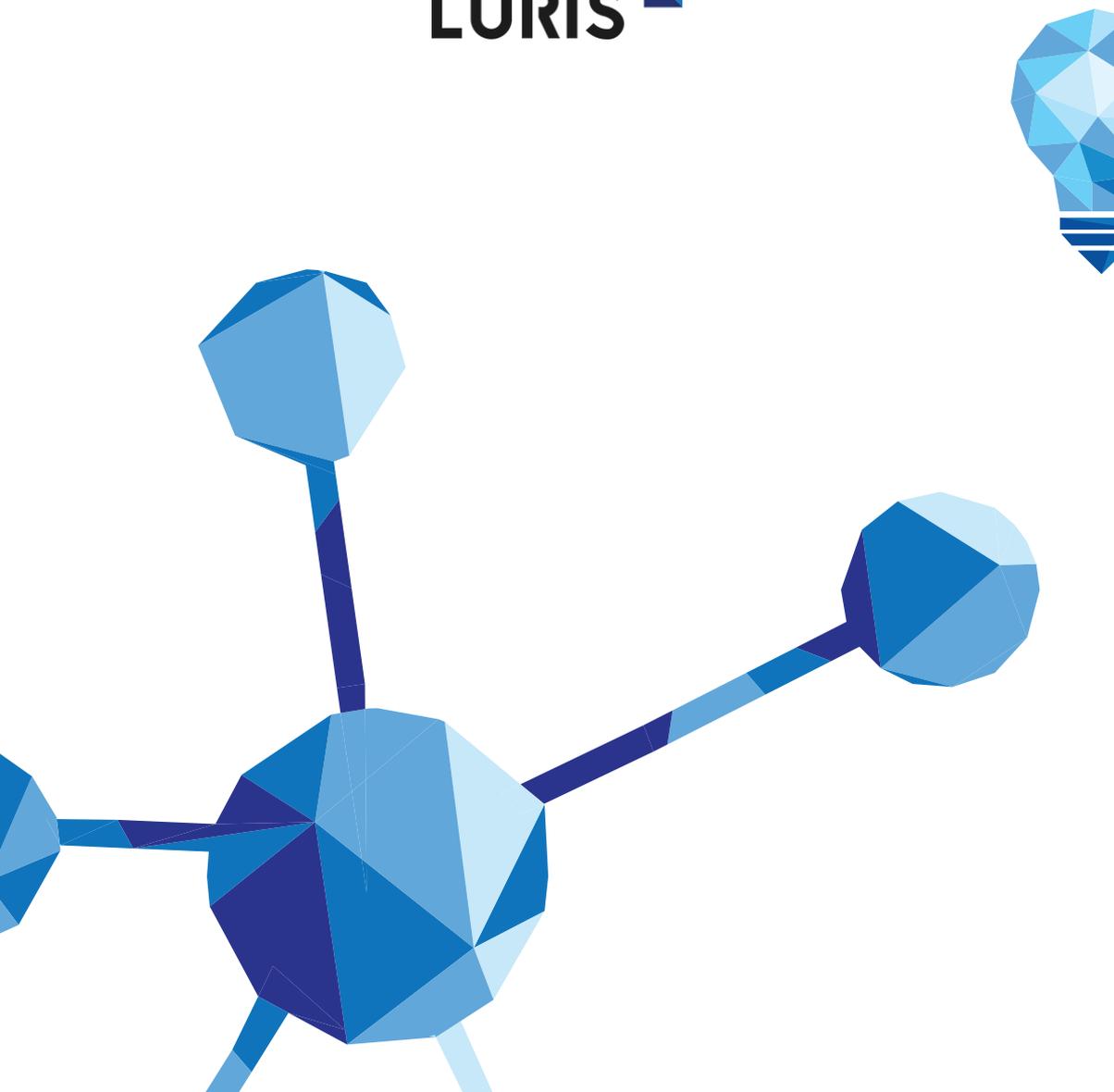
Universiteit
Leiden
The Netherlands



Leiden University
Medical Center

Luris connects scientists of Leiden University and Leiden University Medical Center (LUMC) with the market and society at large, in order to make the most of their scientific knowledge.

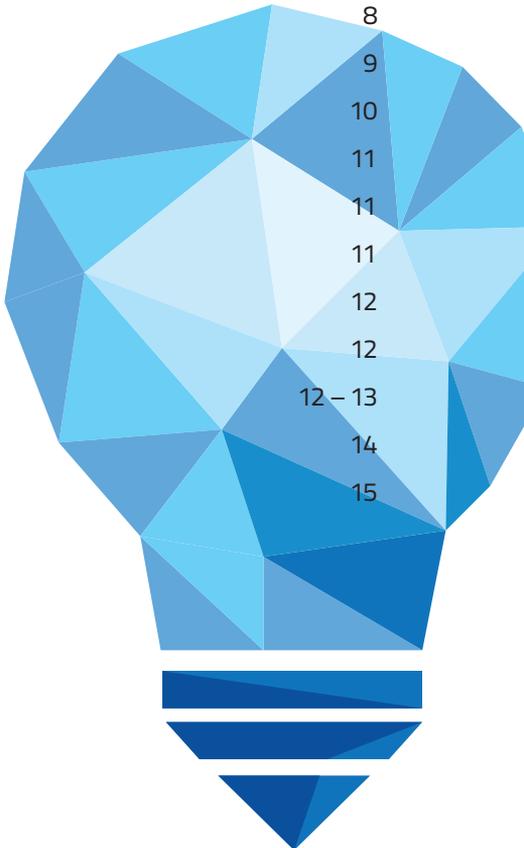
LURIS 





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About Luris

Luris acts as the knowledge exchange office for scientists of Leiden University and Leiden University Medical Center (LUMC), connecting Leiden scientists with the market and society at large, in order to make the most of their scientific knowledge.

Luris does this by:

- ◆ **evaluating** promising inventions generated by LUMC and LU,
- ◆ **advising** on how to best protect your invention (e.g. through patenting),
- ◆ **presenting** the invention to industry in order to find partners interested in developing products based on the technology,
- ◆ **negotiating** (license) agreements with interested companies,
- ◆ **maintaining** long-term relationships with the collaborating company developing your invention.

I have an invention, what should I do?

During your research for the university or LUMC it is possible you **discover something completely new**, such as a therapeutic target, a new compound, a device, or a specific technique. You believe this discovery could ultimately be very useful to society.

In that case we recommend you **contact the Luris Knowledge Partnering team to discuss your invention** and evaluate your options. It is certainly worth considering whether your invention is patentable. See section 'How do I know if my discovery is patentable?' to get an indication of what is patentable and what isn't.

What is patenting and why is it important?

What are patents?

Patents protect an invention from being commercialised by others without the owner's consent. A patent does not give a right for use, but rather prevents others from having the right to use your invention (without your permission).

The responsibility for enforcing the right of this protection, lies with the owners of the patent. Patents can still be infringed, if the owner does not take action.

What is the benefit of a patent?

Before an invention is ready for the market or the clinic, large investments are often required. In the case of drug development, the cost of clinical trials alone can exceed €1,5 B. Companies in the business of drug development will only invest such amounts if they know the drug will be protected by a patent, that they have access to.

This will allow the company to recoup the investment, once the drug makes it to the market. In other innovative industries this is not any different. Often high investments will need to be recouped in a relatively short period. For a company to consider investing in a collaboration, a patent or the ability to patent on the invention is therefore often a requirement.

How do I know if my discovery is patentable?

Patentable subject matter includes: Processes, machines, compositions of matter such as chemical compounds, proteins and the like, devices, methods and some computer programs.

Not-patentable are: Theories, ideas, laws of nature, natural processes, scientific principles or results.

If you are **not sure whether your discovery is patentable**, we still encourage you to contact one of our team members to discuss your invention. Even if your invention is not patentable there can be other routes to create impact with it.



How does it work?

Patent applications often start with a **priority application**, which determines the date of the invention. After this first filing, the inventor can publish his results without it counting as '**prior-art**' for the filing, as long as not more is disclosed than the priority application (be careful with forward looking statements).

Prior-art, or any information on the invention in the public domain before the application, can destroy the novelty required for obtaining a patent.

Since the language used in patent applications is highly specialised, Luris works closely with external patent attorneys to draft the application.

The application will be reviewed by a patent examiner for being **novel** (it is not yet disclosed), **non-obvious** (it is an invention), and is susceptible to **industrial application** (it is reproducible).

After filing the first application, the inventor has twelve months to gather additional results in support of the invention. The inventors, together with Luris, will often contact companies at this stage to gauge their interest. If there is sufficient ground to continue with the application after 12 months, Luris – together with the inventors – can decide to file an international **PCT application**. The PCT process takes 18 months, during which the patent examiner will create a search rapport and the invention is published.

After the PCT phase, the owners of the patent need to decide in which countries to issue the patent. This is called the **national phase**. Each country has different patent laws and therefore needs separate prosecution and translation into the local language. For each geographic area, an examiner will either accept or reject the application. The letter sent by the examiner is called an **Office Action**.



“Patenting and publishing are not mutually exclusive. Think patent before publishing.”

If the application is rejected, the patent attorney will together with the inventors write a response. The inventors may narrow down the claims and/or point out why the examiner's position is incorrect. This process is known as **prosecution**. The examiner can resolve the application by issuing a final rejection, or a notice that the application is allowable, in which case the examiner agrees to issue the patent.

t = 0 months	t = 12 m	t = 31 m	
Priority application	International PCT application	European procedure	Netherlands
			Germany
			Great Britain, etc.
You can publish your results directly after priority filing		Japanese procedure	
		American procedure	
Priority phase Cost: ~ €10,000	PCT phase Cost: ~ €10,000	National phase Cost: ~ €50 -100k per territory	

Table: Costs per patent filing phase

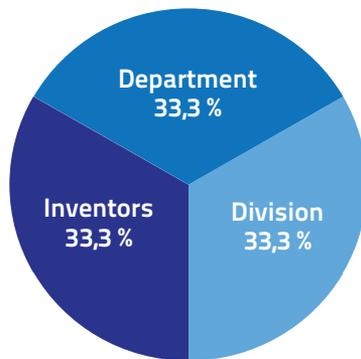
National protection is expensive (sometimes in the hundreds of thousands), depending on which and how many countries you target. Costs at this stage are often borne by the commercial partner and the decision of which countries to target is a commercial one, so it is crucial to have a partner **within 30 months** of first filing. Luris advises you throughout the patent application process and will, together with the patent attorney and your input, take the formal decisions during the patenting process. Filing a patent application will require a significant time contribution from the inventors, in terms of providing the contents for writing the application, and in some cases gathering additional data.

Read more: [Read more on the patent process here.](#)

Who owns my patent?

Any intellectual property that you may generate within employment of LUMC or Leiden University is owned by LUMC or Leiden University. Since 2010, Leiden University has issued [official regulations on working for third parties](#) which state that net proceeds are shared with inventors. Under the regulations on working for third parties inventors receive their proportional share (one third) from the license income after patent expenses.

At LUMC no such official policy exists, however a similar arrangement has been customary. For more information [read the official document](#) or [contact Luris](#).



Net income

Other types of intellectual property

Not all inventions are suitable for patenting. Luris advises you on what form of protection is most suitable in your situation. Other forms of intellectual property (IP) include:

- ◆ **Know-how:** Also known as trade secrets, protected knowledge by the institution. Keeping your invention confidential is also a form of IP protection.
- ◆ **Copyright:** Automatic protection provided to authors and creators of 'original works of authorship', such as literary works, journal articles, powerpoint presentations, lecture material and software.
- ◆ **Trademark:** Rights of the use of a mark or brand. Not all trademarks are registered.
- ◆ **Design right:** Sometimes referred to as a design patent, this is the protection of a visual design of an object that is not purely utilitarian.

[Read more information on different forms of intellectual property \(in Dutch\)](#)

Marketing an invention

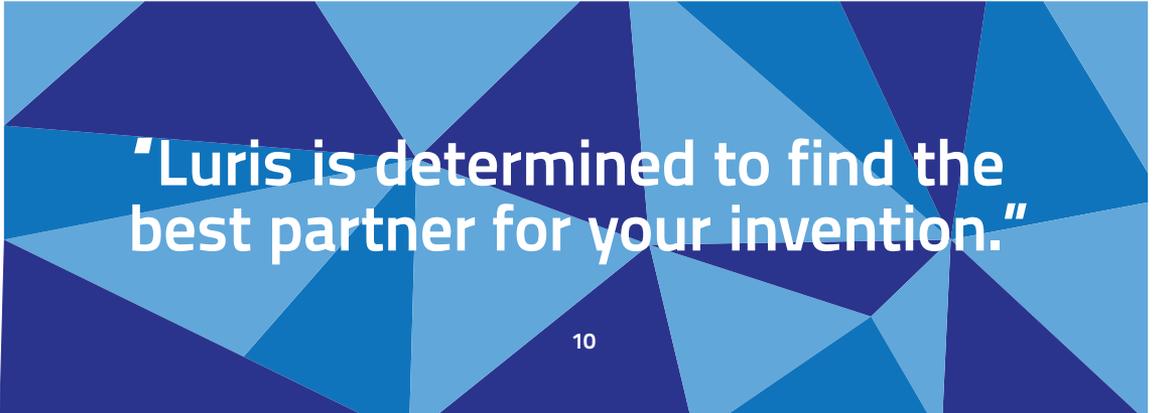
Luris is determined to find the best partner for your invention. Suitable partners will commit resources – such as time, money, and people – to develop the invention. Luris, together with the scientist, will identify potential partners and approach these with a non-confidential teaser on the invention.

We use our website, dedicated databases and attendance at conferences and industry events to identify partners and advertise your research. Your own network and initiatives are also important at this stage.

When a potential partner is found, Luris, together with the scientist, will discuss the invention with this potential partner under a CDA (confidentiality agreement). Often multiple companies are targeted before a successful alliance is formed.

It can take months or even years to locate potential licensees, depending on the attractiveness of the invention, the development stage and the market. Finding the right partner is often challenging, because early stage research frequently requires substantial investment in order to be ready for the market.

Luris always prefers getting input from partners at an early stage, in order to gauge their interest. For instance, on the direction the research should be focused on for the invention to have the highest chance of success in the future.



“Luris is determined to find the best partner for your invention.”

Types of collaborations

Once a partner is found, both parties will need to agree on the shape and form of the collaboration. Many flavours exist and they can be tailored depending on the needs of the inventor, the needs of the partner and the stage of the invention.

Early stage inventions often require additional research to be done by the inventor. In such case a partner could for example contribute financially to the project or make an in-kind contribution such by making time and materials available. In return for this they will often want access to the technology for commercial use once it is more mature. More mature projects will often require the partner to do part or most of the work in order to develop the technology into a product ready for the market.

Luris can advise you on what kind of partnership is most suitable for your situation. The most recurrent types of collaborations are summarised below:

Licensing agreement In case of a licensing agreement, the partner takes on the further development and commercialisation of the invention. In return the owner of the invention (LUMC or LU) receives milestone and/or royalty payments, if and when the invention and commercialisation progresses. A license agreement can be exclusive or non-exclusive and can be restricted to a certain territory and field of application, depending on the agreement.

Research collaboration A research collaboration is focused on research. The scientist will perform (part of) the research, sometimes (co-)funded by the industry partner. Rights of any new intellectual property (IP) will be with the inventing party, however sometimes the partner may own the new intellectual property (IP) or will have an option to license the new IP, depending on the amount of funding provided.

Option agreements In an option agreement the conditions are outlined under which LU or LUMC reserves a right for a third party to negotiate a license for certain intellectual property (IP). Option agreements may be entered into with third parties wishing to evaluate the technology prior to entering into a full license agreement. Option agreements can be incorporated in a research collaboration agreement, or can be a separate agreement.

Interinstitutional agreement An interinstitutional agreement, often referred to as a joint ownership agreement, is an agreement between two institutions on patent decisions, patent management, patent costs, ownership and commercialisation, in case a patent has inventors from different institutions.

What is expected of you?

Luris can help you with filing patents and with setting up collaborations with industry. However, Luris cannot do this without your initiative and involvement. Your role can be summarised in the following steps:

Tell Luris about the invention in an early stage. We can advise you whether patenting makes sense, or whether it is better to do this at a later stage. We advise you to not publicly share information about your invention before discussing the possibility to patent. Public disclosure can make patenting impossible.

Fill out an Invention Disclosure Form (IDF). This is sent to you, after you contact Luris. On the IDF you give a detailed description of the invention, its development stage, its market use, the inventors your funding sources, etc. This document is used for discussion with patent attorneys, involved in filing the patent.

Assist with filing the application. Luris works with specialised firms to write the patent application. Often the patent attorney will ask you to perform a thorough literature search and to describe the invention. A manuscript for submission in a journal is typically a very good starting point.

Help Luris with finding partners. Your contacts are valuable. In our experience, 70% of all successful collaborations are set up with parties known by the inventor. We will also ask you to prepare a non-confidential document, that will be shared with possible partners. Often, collaborations are set up not just for the patent, but also for the contact with the inventor. We therefore rely on the inventors to be committed to the success of the project.

Keep Luris up to date. Please let us know about significant technology developments, upcoming publications, and any interactions with companies relating to your invention.



“Ownership follows inventorship.”

Luris - who is who

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	Arjan Meester Entrepreneurship Advisor	José Zweekhorst Receptionist	
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	Nick Ollivère Senior Grant Advisor	Vacancy Manager Knowledge Base	
Knowledge Partnering	Rob Mayfield Director	Frits Fallaux Senior Knowledge Broker	Jofey Chadwick Knowledge Broker
	Vincent van der Mark Knowledge Broker	Jessica Meijer Knowledge Broker	Ian Nicoud Knowledge Broker
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