

A SHORT GUIDE FOR INVENTORS

Understanding intellectual property and technology transfer

Knowledge and technology transfer

INTRODUCTION TO TECHNOLOGY TRANSFER

INTELLECTUAL PROPERTY

COMMERCIALIZATION

KEY POINTS AND FAQ

INTRODUCTION TO TECHNOLOGY TRANSFER

1. DEFINITIONS AND MISSIONS
2. PROCESS OVERVIEW

DEFINITION AND MISSIONS

Universities have three tasks:

- Education
- Research
- Innovation

Innovation is the **conversion of research into technological solutions** that will benefit society and reach the market (economic growth).

Our Mission

Transferring knowledge:
Improving the chance of
knowledge reaching the
market and society

How?

1. Facilitating transfer of technology to stakeholders
2. Guiding you during the intellectual property processes
3. Helping you find financial support (grants)
4. Promoting entrepreneurship and building visibility

PROCESS OVERVIEW

Your invention will grow to fruition with our support

- 1 Your research leads to an invention
- 2 You fill in the *invention disclosure form*
- 3 Together, we assess your technology
- 4 UNIFR protects the intellectual property
- 5 Technological development (e.g, Innosuisse)
- 6 Licensing: UNIFR gives IP rights to a company

Market access and benefit to society

INTELLECTUAL PROPERTY

1. DEFINITIONS AND IMPORTANCE OF INTELLECTUAL PROPERTY
2. WHAT IS AN INVENTION?
3. WHAT IS A PATENT?
4. WHAT CAN AND CANNOT BE PATENTED?
5. WHY HAVING A PATENT?
6. THE PATENT PROCESS AT UNIFR
7. KEY POINTS TO REMEMBER

DEFINITION AND IMPORTANCE OF INTELLECTUAL PROPERTY

Definition and ownership

- Intellectual property refers to any assets such as patents, literary works, trademarks or even know-how that are used in commerce
- IP created by UNIFR employees in connection with their activities belongs to the University

As an inventor what are my rights and incentives?

- The UNIFR encourage fair and transparent returns and financial redistribution
- As an inventor you might get financial returns, impact society and get more exposure
- Maybe even create a business!

What type of IP should be used

- Each case is unique and will be strategically discussed
- A patent is one of the most common IP at UNIFR
- While patents are common, other forms such as trademarks or know-how can be used

WHAT IS AN INVENTION?

An invention is a **technical product or process that solves a problem** and is created to make life easier and better.

Most invention are not major breakthrough but non-obvious **incremental** improvements.

An invention is **clearly distinct from an idea or concept (abstract)**: it must be **technical and industrially applicable (tangible)** to reach the market.

A discovery and an idea

A newly discovered protein X
that binds and amplify DNA



An invention, technical and tangible

An optimized protein X
formulation for efficient DNA
detection

WHAT IS A PATENT?

private property that the owner can control



prevent or stop all others from using the protected invention



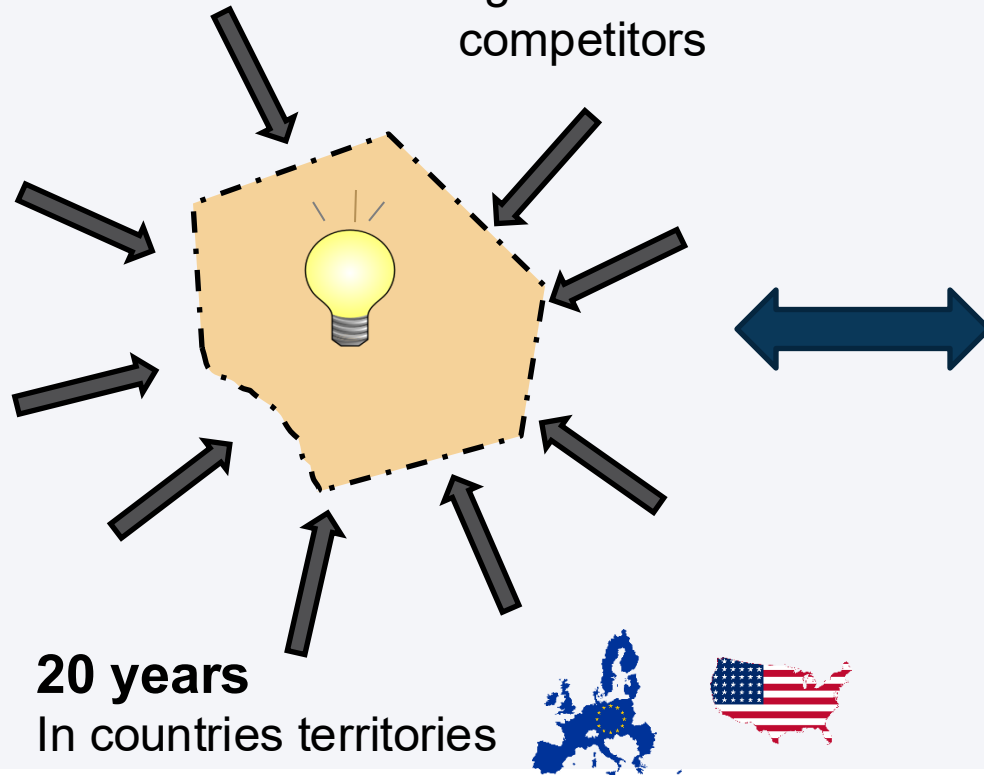
not the right to use the protected invention

A patent gives its owner only an exclusive right to prevent or stop others, from making, using, offering for sale, selling or importing a product or process.

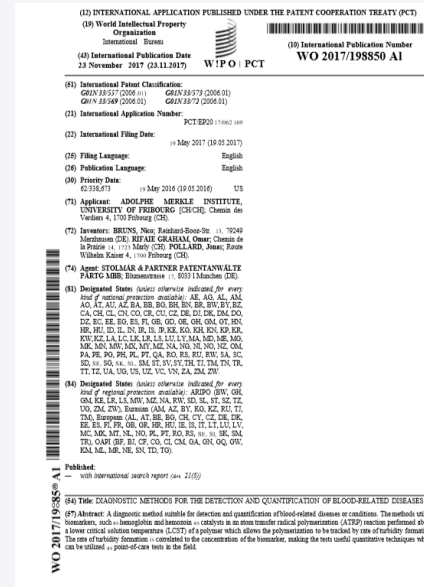
WHAT IS A PATENT?

Inventor or owner gets:

Protection against competitors



In return for:



Goals:
Promote innovation in society
Provide a universal library of technology

Disclosing the invention
In such a way that others can repeat it

Enablement

WHAT IS A PATENT?

An exclusion right for 20 years

- It is a right by exclusion for 20 years, preventing others from using, making or selling the invention
- The exclusion is only valid in specific countries where UNIFR applied and paid the fees

It protects technical solutions

- It is a technical solution to a technical problem
- It can be a product; for example a chemical compound. It can also be process; for example a more effective way to produce a compound

It has three pre-requisites to be fulfilled

- **Be novel.** Your invention was not disclosed externally prior to application.
- **Be inventive:** must be a real technological development, or improvement that would not be obvious.
- **Be useful:** your invention need to have an industrial application

WHAT CAN AND CANNOT BE PATENTED?

This is a non-exhaustive list

What can be patented ?

An invention that provides a new/improved way of doing something:

- Products: machines, mechanical devices, etc.
- Chemical substances: pharmaceuticals, polymers, etc.
- Processes: chemical synthesis pathways, food processing, etc.
- Softwares (in some cases)



What can not be patented ?

- Naturally occurring organisms or substances (as such)
- A discovery, a scientific theory: laws of nature, a new micro-organism
- A rule/method for mental acts: doing business, solving equations, etc.
- An aesthetic creation
- Surgical procedures to be practiced on human or animals



WHO IS AN INVENTOR?

An inventor is the one with "intellectual domination" over the inventive process, and not merely one who assists in its reduction to practice.



Being the supervisor
is not enough



Executing the idea
is not enough

"Joint inventors", or "co-inventors", exist when a patentable invention is the result of inventive work of more than one inventor. Joint inventors exist even where one inventor contributed a majority of the work.

WHY HAVING A PATENT?

A collaboration catalyst

- A patent gives credibility to your invention
- The invention is more attractive to investors, partners and other businesses
- It will encourage technology sharing and development
- It will help negotiate with companies with a credible asset

Guides technological progress

- It will give you opportunities to work with adapted and credible partners
- It is a long-term strategy to secure a proper technological development and further improvements
- Most of the time, a patent is essential to get grants in innovation such as Innosuisse or Bridge
- A patent will be published: you contribute to public knowledge and technical advancement

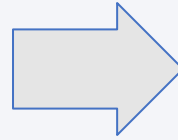
THE PATENT PROCESS AT UNIFR



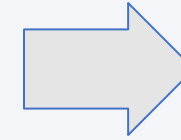
Filling the
Invention
disclosure form



Technology
Transfer
assessment 4
weeks



IP board
evaluation 1
week



Rectorate
decision 1
week (dates)

A detailed description of your
invention defining each
inventor contribution



It is of key importance
when assessing
inventorship and
invention potential

We evaluate the technology
together. Is it possible and
necessary to patent?



We will ensure
patentability and help
understand potential
markets

You will present your invention
in front of an expert board
selected by UNIFR



Positive expert
opinion will make
your internal
application stand
out and is essential

We send a summary to UNIFR
rectorate with our evaluation
and advisory board feedback



Obtaining a patent is
a lengthy and costly
process. UNIFR
rectorate has the final
decision

What if the assessment is unfavorable? More information in our [FAQ](#)

KEY POINTS TO REMEMBER

An invention = a technical product or process solving a problem

Obtaining a patent

Technical

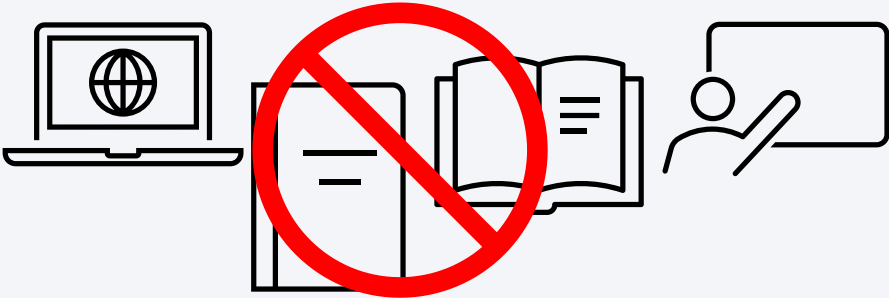


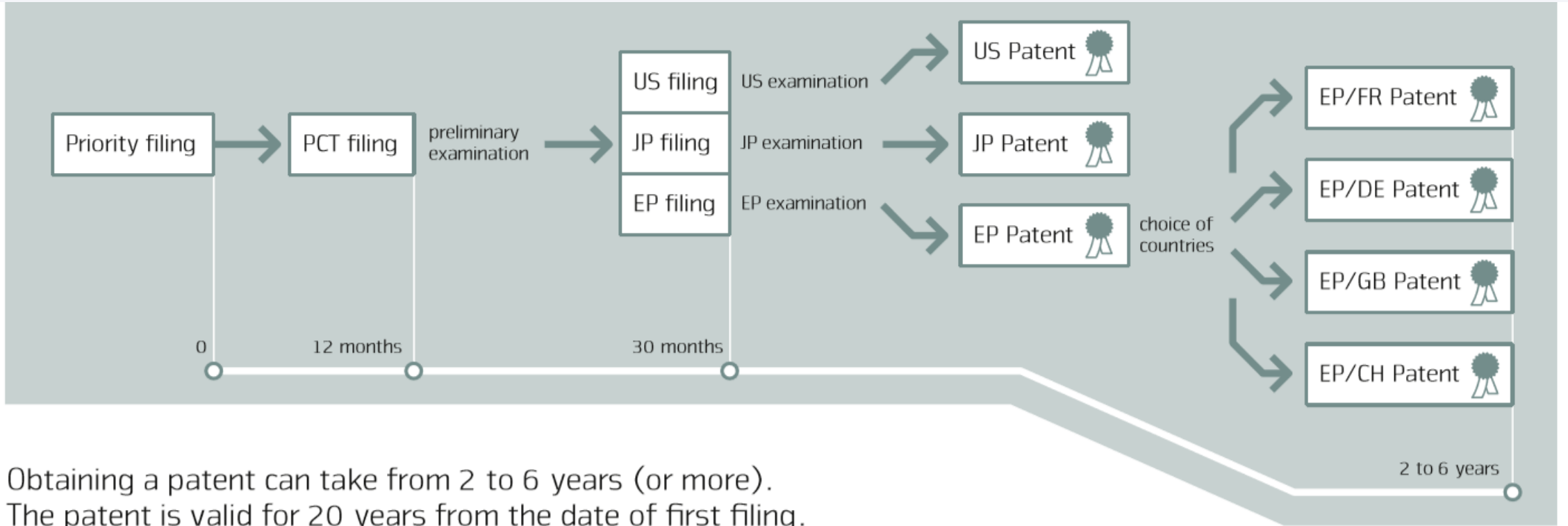
Discovery



Novelty = essential

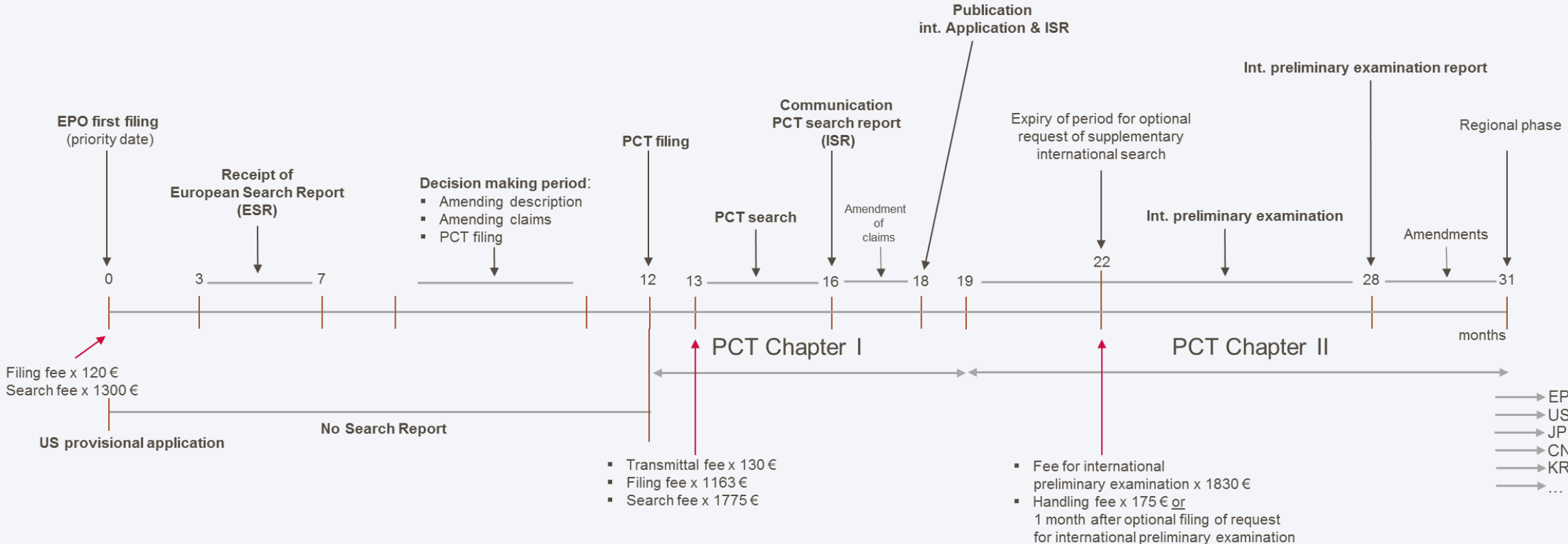
No disclosure prior patent filing



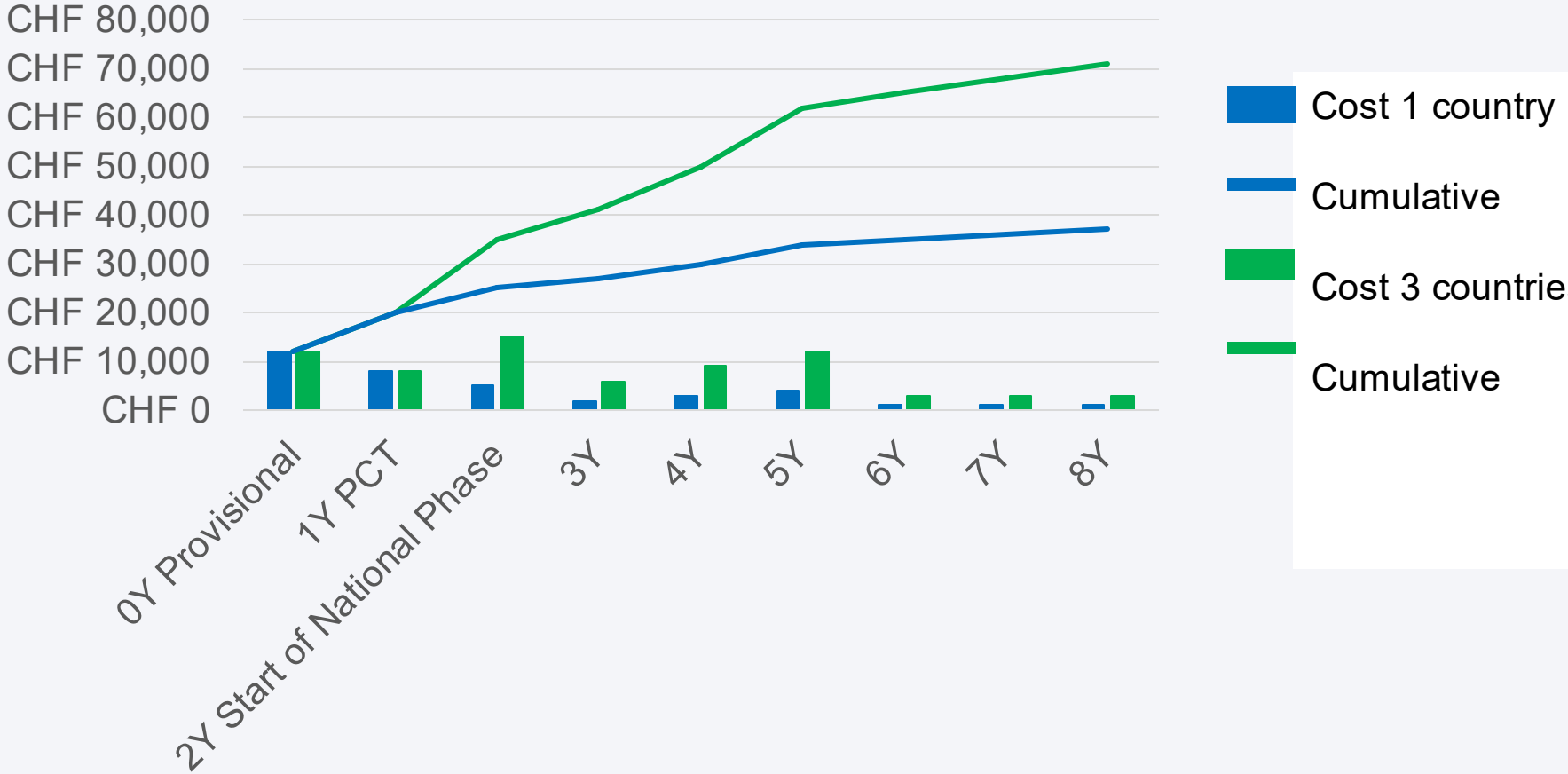


Obtaining a patent can take from 2 to 6 years (or more).
The patent is valid for 20 years from the date of first filing.

PATENT PROCESS IN DETAIL



COSTS



CHECK WITH KTT before planning any meetings, presentations, or publications

You need to PROTECT THE INTELLECTUAL PROPERTY

BEFORE

DISCLOSING (PRESENTATIONS MEETINGS PUBLICATIONS)

COMMERCIALIZATION

1. COMMON PATHS OF COMMERCIALIZATION AT UNIFR
2. WHAT IS A UNIFR START-UP?
3. FINANCIAL REDISTRIBUTION SYSTEM
4. COMMON FINANCIAL SUPPORT FOR START-UP PROJECTS

COMMON PATHS OF COMMERCIALIZATION AT UNIFR

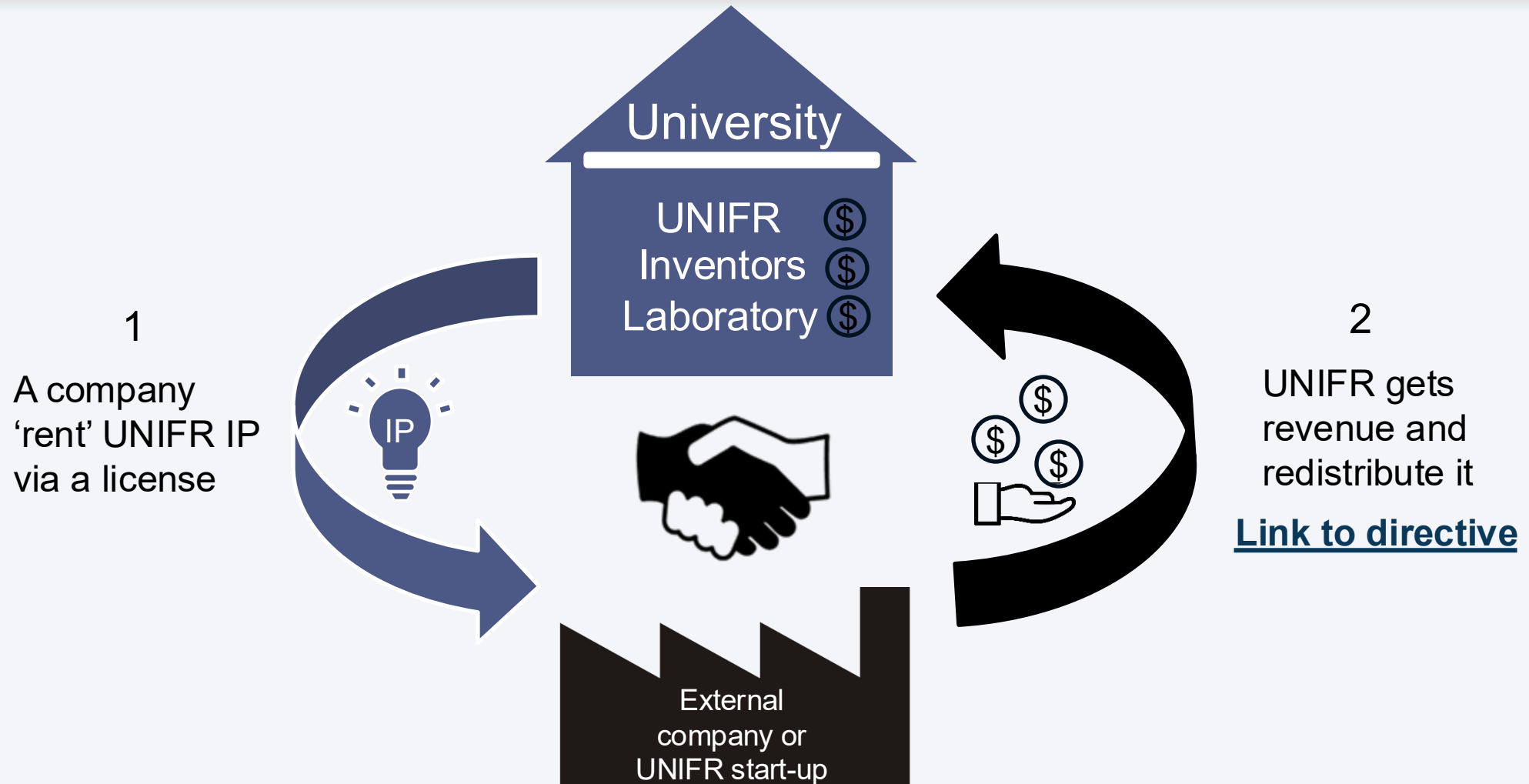
Through a UNIFR start-up

- An UNIFR start-up is a company created with the aim to further develop and commercialize a technology
- The technology is originating at UNIFR or benefitting from an essential contribution from UNIFR and founded by UNIFR staff, students or alumni
- As the IP belongs to the university, your start-up will need a license to use the technology for commerce. We have favourable conditions for UNIFR start-up

Through licensing to an external company

- If you do not wish to commercialize and build your own business, we can help you find industrial partners
- A license is a legal agreement where the UNIFR grants permission to the external company to use, modify, or distribute the product in exchange of financial benefits
- Finding licensee is a long process that can take months of negotiations and where your help is essential

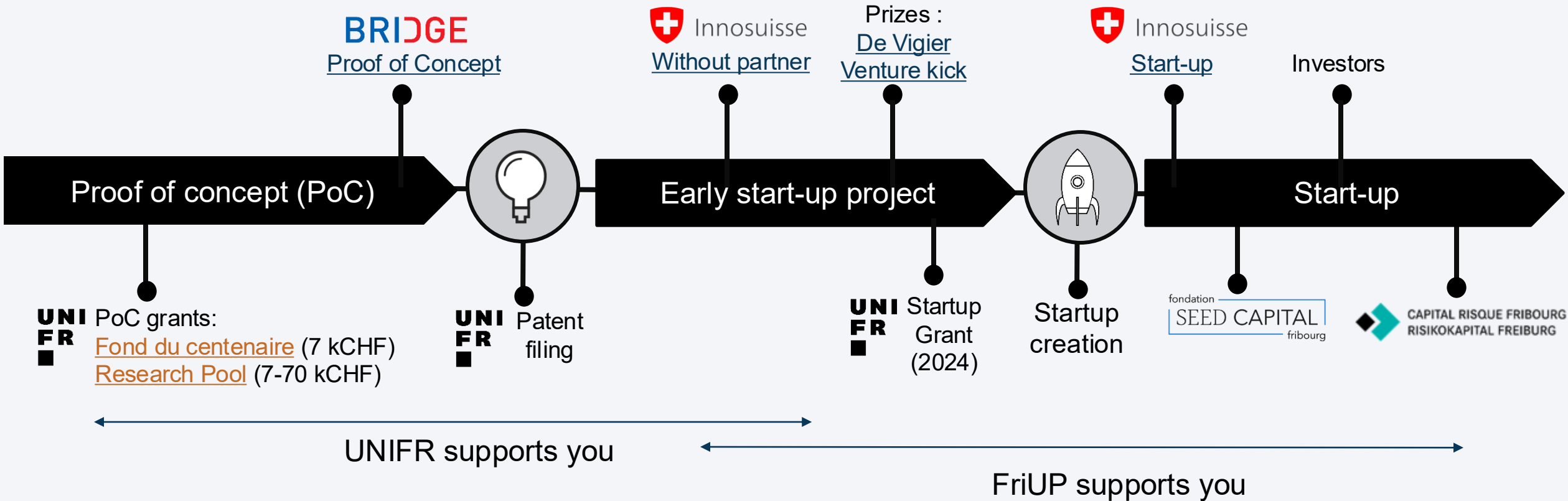
FINANCIAL REDISTRIBUTION SYSTEM



In most cases, 1/3 of the revenues generated from licensing goes back to the inventors

COMMON FINANCIAL SUPPORT FOR START-UP PROJECTS

Most common financial supports from your proof-of-concept to start-up incorporation

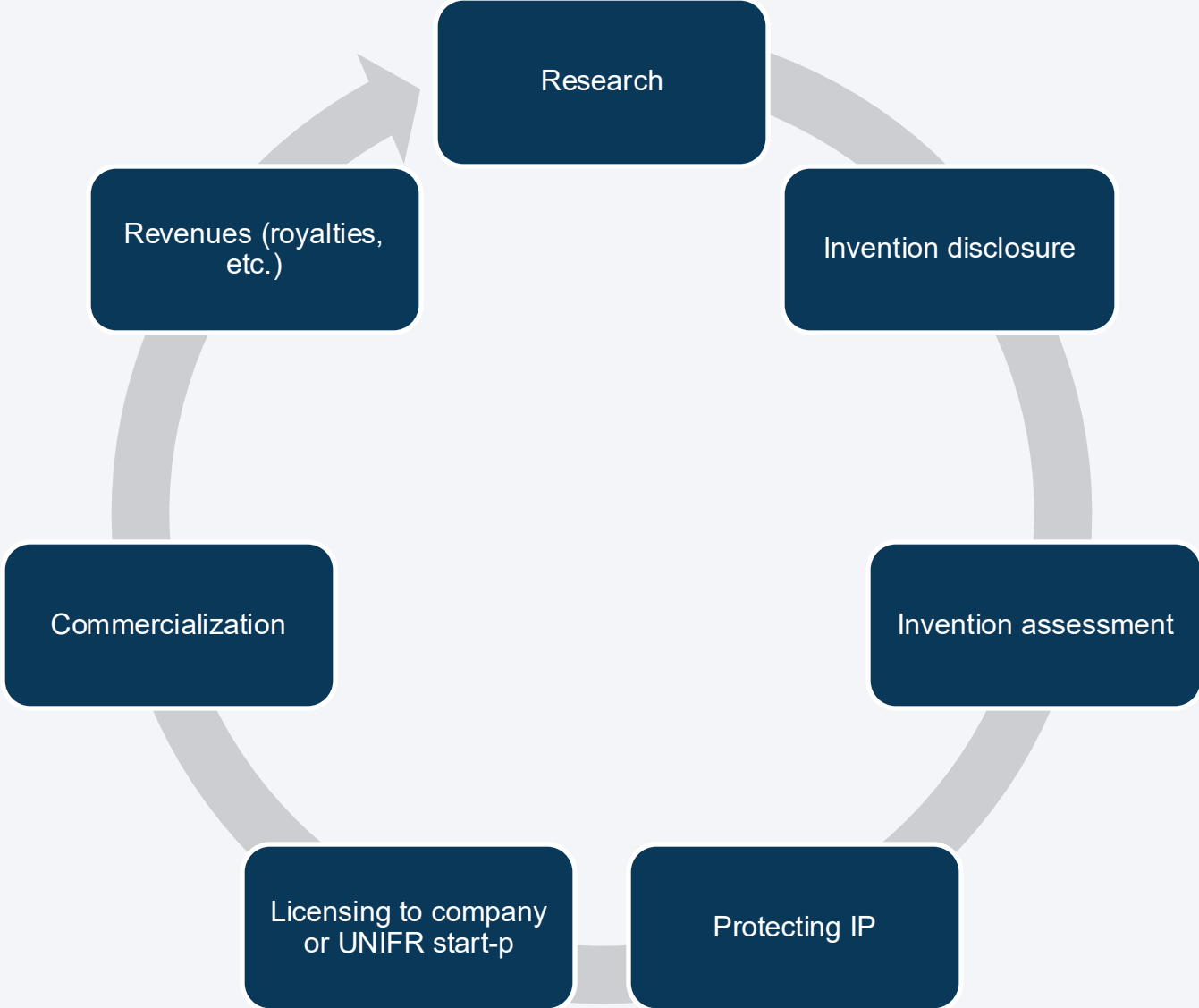


FriUP offers free support for new entrepreneurs and companies based in the canton of Fribourg

CONCLUSION

- KEY POINTS TO REMEMBER
- THE CYCLE OF INNOVATION
- HOW CAN WE WORK TOGETHER?
- FAQ

THE CYCLE OF INNOVATION



HOW CAN WE WORK TOGETHER?

