

UNIVERSITY OF HELSINKI

PATENTING POLICY
30 NOVEMBER 2020



47

FILED PATENT
APPLICATIONS
IN 2020

UNIVERSITY OF HELSINKI

PATENTING POLICY

30 NOVEMBER 2020

PURPOSE

This document is targeted to the researchers at the University of Helsinki (hereafter UH) for the purpose of setting out the invention policy for the inventions owned by the UH and to define the processes and criteria for decision-making regarding patenting.

INTRODUCTION

It is becoming more and more important for universities to create additional income sources through the translation and commercialisation of research results. Patent protection is an important tool that can enhance and enable the commercialisation of selected research born inventions. A patent gives the owner a right to exclude others from using the same invention and thus often forms a foundation for a business transaction. Active patents and patent applications filed by the university form a portfolio that is part of the UH's assets targeted to be commercialised. When successful, the commercialisation of patents in this portfolio can bring an additional funding stream to support research and education at the University. Furthermore, part of the UH's income from the commercial exploitation of patents and patent applications (e.g., licensing) is redistributed to individual inventors according to UH's invention guidelines. Hence, patenting protects both the UH's and the inventors' financial interests. The UH manages its patent portfolio actively at every stage of the patenting process in compliance with the ethical guidelines of its operations.

WHAT TO PATENT?

Helsinki Innovation Services Ltd (hereafter HIS) is the UH's (through Helsinki University Funds) wholly owned technology transfer company, which manages the patenting process and the patent portfolio on behalf of the UH. The UH carefully considers which inventions to protect with patents. As patenting is also a financial investment, an identified commercial potential and assumed return on investment are prerequisites for patent filing in addition to formal requirements concerning the novelty, inventiveness and industrial applicability of the invention. Moreover, protectable inventions must possess sufficient freedom-to-operate to enable the UH's commercialisation efforts to be independent of any third parties. HIS assesses the eligibility of the inventions for patenting at the UH.

In some cases inventions made at the UH are dependent on third party rights. Such inventions can be, for example, new uses or production methods for existing technologies that are owned and patented by others. Depending on the scope and validity term of the existing patent rights, the UH primarily wishes to enter into invention assignment agreements with those existing patent holders to commercialise such inventions "as is". Patenting and related costs will thereafter be the responsibility of the contracting party. Such invention assignment agreements can be combined with various forms of research collaboration agreements (such as fee-for-service or genuine research collaboration agreements), granting the buyer access to the UH's expertise and research infrastructure to further mature the invention in collaboration with the UH's researchers. This is also an efficient way to promote collaboration with the private sector. The patent may, however, be filed by the UH in cases where the patent protection is necessary to conclude ongoing negotiations with industrial partners. The urgency of the researchers to publish the invention does not itself justify the filing of a patent application.

When drafting patent applications, the UH primarily aims for composition-of-matter (product) patent claims supported by relevant method-of-making and method-of-using claims, because these claim types form a strong basis for IPR protection, enforceability and the commercialisation of the invention.

PATENT PROSECUTION AND PORTFOLIO MANAGEMENT PROCEDURES AND DECISION-MAKING

Most of the UH's priority patent applications are filed in Finland. However, a suitable strategy is decided case by case depending on the needs of the protectable invention. The UH will not in principal file provisional patent applications in the US as they do not form a basis for a strong priority in Europe. The grace period in the US is not to be utilised without serious grounds.

The timing of the publication (oral disclosure in a conference; an abstract or a scientific article) needs to be planned and agreed in advance with HIS and the selected patent attorney in order not to endanger the patentability of the invention.

The UH has contracted HIS to manage and develop its patent portfolio. In its monthly IPR Review Meetings HIS reviews the patent portfolio and makes recommendations regarding new patent filings as well as patent prosecution and portfolio management-related activities. International patent protection is sought via the Patent Co-operation Treaty (PCT) at 12 months after the filing of the priority application. National patent applications are filed 12 (countries that are not part of the PCT), 30 or 31 months after the priority application.

The main criteria followed in decision-making at IPR Review Meetings are as follows.

REQUIREMENTS FOR FILING NEW PATENT APPLICATIONS:

- Identified market potential, novelty, inventiveness and freedom-to-operate
- The intellectual property in question is a core asset in an ongoing or planned commercialisation project (such as a Business Finland-funded Research to Business project) or pre-marketing efforts demonstrate interest from the private sector or another relevant organisation participating in commercialisation actions.

- The inventors are named correctly. HIS personnel can assist in establishing correct inventorship.
- The UH will only file joint patent applications together with other research institutions. Therefore, proper transfer-of-rights (oikeuksiensiirtosopimus) and assignment agreement documents entailing the assignment of the invention from private persons (inventors) to the UH must be in place and signed before filing a patent application.
- Sufficient scientific data supports filing of the application, or
 - The inventor(s) can present a convincing plan for the completion of required critical experiments before entry to the PCT (within 12 months of the priority filing), and
 - The inventors have funding secured to support the critical experiments and related further development of the invention, and
 - The inventors agree not to publish any of the new data that is generated after the filing of the priority application and before the filing of the PCT application.
- Requirements (e.g., the addition of supporting evidence) for the PCT entry are agreed with HIS.
- The inventors are committed to advancing the research, participating in commercialisation activities (such as meetings and teleconferences) and assisting in preparing replies to office actions when needed.

REQUIREMENTS BEFORE THE ENTRY TO THE PCT PHASE :

- Commercial prospects remain high.
- A commercialisation project (e.g., Research to Business) is ongoing and the IP is further developed therein, or industrial collaboration and/or licensing and/or IP transfer negotiations have advanced during the priority year (the time between priority date and the PCT filing).
- The PCT application can successfully be amended with the data produced during the priority year.
- A good shared understanding between HIS and the patent attorney of how the patent is going to be prosecuted:
 - Critical claims have been identified,
 - The challenges for novelty and inventiveness discovered during the examination of the priority application can most likely be overcome, and
 - Research results support the advancement of the critical claims.

REQUIREMENTS BEFORE THE ENTRY TO THE NATIONAL PHASE:

- Entry to the costly national phase is done when there is a commercialisation partner or route identified (e.g., the formation of a spinout company or an out-licensing opportunity), and commercialisation of the IPR is expected to happen within one to two years.
- Country selection is made based on the selected main market areas of the patentable invention in question.
- A shared understanding between HIS and the patent attorney of how the patent is going to be prosecuted and whether it is likely that the key claims are found allowable based on the international search report.
- The likely allowable claim sets cover the asset or product that is going to be commercialised; i.e., the scope of claims is still relevant considering any new research results obtained.

POSSIBLE ABANDONMENT OF THE IPR DURING PROSECUTION OR MAINTENANCE:

- The UH actively monitors its patent portfolio and, for example, in cases where commercialisation does not progress despite attempts or due to significant changes in the market/technical field, the UH may withdraw from the patent prosecution process or stop paying annuities and let the IPR lapse.
- Before any decision on abandonment, the UH must be in compliance with joint technology and transfer-of-rights agreements relating to the inventions in question and must seek approval for abandonment from the contracting parties.
- Should the UH decide to offer the IP rights back to the inventors, the terms and conditions of such transfer are negotiated case by case.

Any additional advice regarding patenting is available from HIS personnel together with selected external patent attorneys.

COSTS OF THE PATENT PROTECTION OF UH INVENTIONS

The UH will assume the expenses of the patent protection of inventions for which the UH holds the ownership. In joint patent applications the UH will assume expenses in proportion to its ownership of an invention. The co-owners must thus participate in the financial risk associated with the patenting and commercialisation of inventions.

In cases where a share of the UH's rights has been transferred to the UH from other research institution(s) and thus the UH alone is the applicant and responsible for prosecution, commercialisation and associated costs, the UH asks, in addition to compensation for the out-of-pocket costs that occur, a commission for its efforts of 10–20% of the revenue generated by the commercialisation of the patent in question from the contracting parties. The percentage will be negotiated on a case-by-case basis and it will take into account the contributions of the UH and HIS during idea maturation, IPR protection and commercialisation.

UH-owned invention rights can also be transferred to other research institution(s) for patent protection and commercialisation under separately agreed terms.

The patenting costs are generally paid from UH's extramurally funded commercialisation projects. This may have an impact on the timing of the patent application as the filing may need to be synchronised with the schedule of the commercialisation project. In certain cases where a licensing route for commercial utilisation of the IPR is already visible in the short term, or if no further academic funding is needed to mature the invention, the patenting costs are paid from the general patenting funds of the UH.

GLOSSARY

Annuities are annual fees that are paid to keep a patent application or a granted patent in force.

Composition of matter is one of the four general categories of patentable subject matter and describes a new and non-obvious chemical composition.

Freedom-to-operate refers to the ability to develop, make and sell products or methods without legal liabilities to third parties, for example, existing patent holders.

A *grace period* is a certain, limited time (usually 6–12 months) provided by some countries within which the inventors' own publication of the invention does not destroy its novelty, i.e., is not considered prior art of the patent application filed.

A *Patent Co-operation Treaty* is an international patent law treaty that provides a unified procedure for filing patent applications in each of its contracting states.

Patent prosecution refers to the process of drafting, filing and negotiating with national patent offices in order to obtain patent protection for an invention. Often patent prosecution entails arguing for the patentability of the invention in responses to office actions (formal communication with patent offices) before a patent is granted by the respective national patent office.

A *priority patent application* is the first patent filing of the invention in a single country that gives the application a priority date.

A *provisional patent application* is a patent application that can be filed in the US without formal patent claims. Provisional patent applications are not examined on their merits.