

GUIDE TO PATENTS

Information for Inventors at the TU Wien



STATEMENT VICE-RECTOR

Univ. Prof. Dr. Johannes Fröhlich Vice-rector for research and innovation, TU Wien



Together with its corporate partners, TU Wien understands itself as driver of innovation along the value chain from basic research to market readiness. Patents strengthen both our industrial collaborations and our spinoffs and are an important building block for transferring the new technologies into society and the economy.



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Your Research and Transfer Support (RTS) is ready to provide you with a wealth of information and advice. Contact addresses are available on page 23.

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WHAT IS AN INVENTION?

Inventions are new ideas designed to help solve technical problems. They are different from discoveries – such as x-rays or a new animal species – as these can be discovered but not invented.

On the Road to getting a Patent

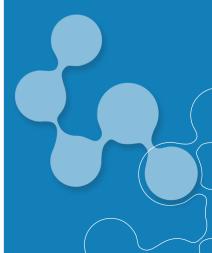
This brochure compiles valuable information for researchers about the advantages of applying for a patent. The road to successfully acquiring a patent can be compared to a journey into the unknown. This brochure aims at serving as a guidebook to accompany you on this journey.

For you as a researcher, patents can be an excellent way to bring your research into the commercial arena. For legal purposes, patents are also important when it comes to acknowledging an invention's commercial value. Start-up companies are, for example, more likely to be successful with a solid patent portfolio.

In short: Patents can legally protect your professional knowledge and expertise, helping you to achieve commercial success.

Patents are intellectual property rights, like trade marks and designs.

Filing a Patent Application can be the first step toward commercialisation of your know-how. It is a way to put ideas, inventions and technologies into practice and make it accessible to the public, consumers, the market and to specific fields of trade.





Comments from Experienced Inventors



"Patents protect our intellectual property.
They show that our ideas are new and unique and help to find interested companies and potential cooperation partners."



"It is the ambition of my team to contribute to new high-tech solutions for our modern world. This is not a purely academic exercise for us, but we want these innovations to be implemented."



"Patents filed by TU Wien were a perfect foundation for us to build a successful company. This shows very well the importance of basic and applied research at universities."

O.Univ.Prof. Dr. Johann Kollegger, Head of the Institute of Structural Engineering at TU Wien Dr. Miriam Unterlass, Head of the Research Group for Advanced Organic Materials at TU Wien Dr. Johannes Homa, Founder and CEO of Lithoz GmbH

Inventions at the University

- Inventions created by university employees are referred to as "employee inventions". This also applies to inventions created outside of office hours as long as the individual is still employed by the university!
- All inventions are reported to the RTS (the Invention Disclosure Form is available on the RTS website). The university has three months from the date of reporting to claim the invention.
- Similar to private companies, the inventions belong to the university.
 This certainly does not mean that the inventor will be overlooked. On the contrary, an invention can only become truly successful when the inventor and the university work together.

For you as an inventor, this means you do not have to pay the patent application fee or the legal fees and you may be entitled to inventor remuneration (UG2002 §106).

Invention Evaluation: Once an invention has been formally reported, the university has three months in which to assess the patentability and market value of the technology and decide whether or not to claim it. The RTS will evaluate the invention, working closely with the inventors. The invention must be kept confidential by the university and by the inventors. If the invention is not claimed by the university within this three month time limit, ownership of the invention reverts to the inventors, who are free to commercialise it as private individuals.

IP Protection: If suitable, the RTS will arrange for Intellectual Property (IP) protection. The term Intellectual Property Rights (IPR) comprises all intellectual creations and absolute rights to intangible goods. This includes industrial property rights (patents, utility models, trademarks, etc.) and copyright.

Points to consider in the Evaluation

You can facilitate the evaluation process of the RTS by providing

- A patent search (see page 11)
- Answers to the following areas:
 - Applications:

What can this invention be used for?
What are the potential areas of application?
What are the competitive advantages or the potential disadvantages of your invention compared to the available products on the market (e.g. cheaper, easier to scale, etc.)?

- Market and customers:
 Does the invention meet a customer need?
 What is the benefit for the customer when using the invention?
 What kinds of future trends are important?
 How will the market and customer demand develop?
- Further steps:
 What are the necessary next steps in bringing the technology to the market?
 What resources are needed for these steps?

PATENTS: ON THE ROAD TO SUCCESS

What is a Patent?

A patent is a set of exclusive rights enabling the patent holder to exclude others from commercial use. In exchange, the invention must be publicly disclosed. For an invention to be patentable, it must be new in the field of technology, it should not be too similar in resemblance to other products, and should be viably commercial. Patents are valid for a maximum of twenty years; patent applications are reviewed separately in each country.

Patent Information and Patent Search Engines

To avoid duplication of research results, it is essential to perform a patent search at the beginning of each research project (in addition to searching scientific literature). This can be done online in publicly available databases free of charge. You can use keywords but also specific patent classifications to enhance the quality of search results. All databases offer information files, tutorials, or even webinars to help you with the search for prior art in patent literature. When you believe that you have invented something, it is also important to search for prior art to determine whether your invention is novel and provides an inventive step.

These are the most important sources of patent information with free online access...

- Espacenet: https://worldwide.espacenet.com
- Google Patents: https://patents.google.com/
- Depatisnet: https://depatisnet.dpma.de
- United States Patent and Trademark Office: https://www.uspto.gov/

Criteria for patentability:

- Commercially applicable
- Novel
- Contains an inventive step
- Technical

PLEASE NOTE!

Any kind of publication about the invention - even if communicated orally by the inventor - could be detrimental to the novelty aspect.

Advantages of Getting a Patent?

Patents benefit both the inventor and technological progress!

Inventor Remuneration: When the university successfully licenses or sells a particular patentable/patented invention, it distributes some of the net income generated to the inventors as inventor remuneration. Ask your university RTS for more information.



Patent applications...

- are of great interest to potential industrial partners.
- make you more attractive when searching for joint research co-operations.
- help to protect your research results.
- boost your curriculum vitae.
- open doors to career advancement opportunities.
- demonstrate active research and development efforts.
- do not exclude publishing.
- contribute scientific and technical innovation to society.

Patent Application Checklist

The following could be detrimental to the novelty of your invention and could prevent the grant of a patent:

- Past publications in a scientific journal
- Conference presentations
- Public presentations with no confidentiality agreement (such as a classroom lecture)
- A featured story on radio or television
- Online publication
- Former patent applications, even if they have not yet been published

In particular, bear in mind that:

- You can avoid jeopardizing the novelty factor of your invention by restricting access to the publication of master theses or doctoral dissertations until a patent application is filed.
- Publications can be submitted but will effect the novelty factor as soon as the content is published. You should therefore exercise caution with regards to submitting applications and publications. Ask yourself: Do I want people to know about my findings?

Not detrimental to novelty:

- Communication, providing a non-disclosure agreement (NDA) has been signed
- Expert review provided by the Patent Office about the most recent technological developments
- Consultation with the university RTS

Your Roadmap to Patent Applications

Month 0

Priority year*

Month 12

Invention Notification

As soon as an invention is officially reported the university has a three month period from the date of reporting to decide if it wants to claim the invention or not.

Initial Application

If the university decides to back the invention and file a patent application, it will take care of drafting the patent specifications and filing the initial application. The date of filing this first application is called the priority date.

Patent Applications in other Countries

Within a twelve-month period from the initial filing (= priority year*):

- EP European Patent: Patent applications within Europe
- PCT Patent Cooperation Treaty: International patent application**
- Additional individual countries

*A patent application with the same content than the initial application can be filed in other countries within the twelve-month period.

**PCT: The choice of this patent application secures the right to select the countries in which the patent protection is sought up to 30 months after filing the first application.

Our Tip: We recommend filing the patent application in countries where there is a market or a suitable production location. Start thinking about these things as early as possible!

Month 18

Month 30

Publication

After 18 months, the Patent Office will publish the patent application and (if available) a report on patentability.

Nationalisation Phase for PCT applications filed in month 12.

Examination

The Patent Office will review patentability and may require further information.

Patent Granted

The patent term is twenty years, starting from the date the application was filed.

Patent Not Granted

FAQs

Can I submit my paper for publication right after handing in the invention disclosure form?

Publications should be submitted after the patent application has been filed.

As the inventor, do I have to pay for the patent?

No, as long as the university has claimed ownership.

Do I still have to notify the university about my invention even if I do not wish to apply for a patent?

Yes.



When does patent protection come in to effect?

If a patent is granted, patent protection is retroactive, becoming effective starting on the date of patent application.

Who owns the invention?

The university, providing the university claims the invention within three months.

Do I still have to inform the university about my invention even if the rights have already been given to, say, a company?

Yes. The university will still need to claim the rights to the invention to then pass them on to the collaborating company.

OPPORTUNITIES AFTER FILING

Your patent journey will consist of several opportunities to get the most out of your invention. Finding a successful option depends on what you want to do as well as the circumstances.



Which Route to Success best suits your Journey?

There are different routes to commercialising an invention. Depending on the technological area, the characteristics of the invention and the interests and personality of the inventor/s, some routes are more advisable than others. Your RTS will give you guidance.



The patent is made available to one or more companies for a fee.

- + Lower financial risk
- Little control, lower profit

Sale:

The patent is sold to a company and the ownership is transferred for a fee.

- + Quick profit, minimal effort
- Small return, no additional application opportunities



Starting your own Spin-off Company: Start a company based on the patent.

- + Potentially large profits
- High degree of risk

Cooperation Projects:

A patent supports a cooperation effort together with a company.

+ Higher chance to acquire additional external funding and better market access

Do you have an Entrepreneurial Personality?

Consider where you most likely see yourself and the invention in the future.

If you answered 'yes' to questions 1-3, then you should consider starting a business!

If you answered questions 3 and 4 with 'yes' then you should consider discussing with your RTS if a joint project combined with a license or an option agreement might be suitable. If you only answered question 4 with a 'yes', then licensing

or selling the patent

could be promising

options!

1

Do I want to spend time commercialising my invention?

3

Do I want to continue actively developing the invention?

2

Do I want to bear the financial risk and burden?

4

Are there potential company partners interested in the invention?

Not sure? Your RTS is happy to meet with you to answer all of your questions.

Routes

1. Licenses

Most commonly, the university makes technologies available to companies by licensing its intellectual property. The company receives the rights to use the technology in return for appropriate remuneration.

2. Sales

Sometimes the university transfers the ownership of its intellectual property to companies, usually in return for lump sum payments.

3. Working with Companies: Cooperation Projects

Cooperation projects with one or more companies might be an interesting option for exploiting your research results and gaining access to their expertise. Before starting negotiations with a company, please contact RTS as soon as possible! For the desired outcome, be well prepared (know your costs, project plan and potential project outcome i.e. impact). Our team will help you with budget calculations and contracts relating to industry projects as well as intellectual property, including:

Confidentiality Agreements: Revealing confidential information to third parties such as other research institutions or companies can jeopardise later patent filings. The best protection is to set up a short written agreement between the parties, called CDA (Confidential Disclosure Agreement) or NDA (Non-disclosure Agreement) beforehand.

Material Transfer Agreement: If you are planning to send or receive materials from other laboratories, research centres or companies, the rights and duties of the parties have to be formalised with a Material Transfer Agreement (MTA).

4. Creating a New Business

An invention alone does not make for a successful company!

Aside from the technology, think about the following:

- Which problem do I want to solve and what solutions are already out there?
- What kind of product / service am I going to develop/make available?
- Who would pay for my products or services and how can I reach out to these customers?
- What would the ideal team look like and what is my role in the company?
- What would the best business location be?
- What are the projected selling trends in the near future?
- Where is my market, where can I manufacture products, where do I need legal protection?
- How much would the product cost?
- Who are my competitors and what are their strong points and weaknesses?
- How much time does it take to make the product/service and what kinds of resources are required?
- How can I raise the required capital?

Institutions providing help to entrepreneurs:

- INiTS, the university business incubator offers organisational, infrastructural and financial support to people from universities who want to start a business: http://www.inits.at/
- i2c Innovation Incubation Center at TU Wien is an Incubator and Start-up Hub for scientists and students from TU Wien and offers a Diploma Supplement, a start-up incubator, and networking events: https://i2c.tuwien.ac.at/

- Entrepreneurship Center at WU Vienna will support you within the first steps and offers networking events, individual advice, and a Skills Academy where you can train your entrepreneurial skills.
 https://www.wu.ac.at/gruenden/
- ECN Entrepreneurship Center Network is a platform and contact point at Viennese universities to get in touch with the start-up ecosystem.
- Academic Start-Up Network: www.akostart.at

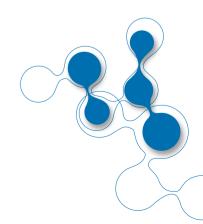
The RTS will be happy to establish contact with any of these supporting agencies for you.

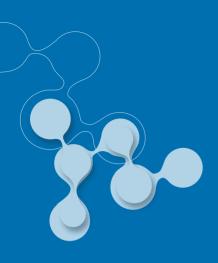
RTS: Contacts

If you have any questions please contact the responsible unit mentioned below.

Research and Transfer Support:

www.rt.tuwien.ac.at patent@tuwien.ac.at





Ready?

- ✓ Contact your university RTS.
- Provide them with any relevant information and contracts that you are aware of.
- Prepare any questions you might have for the initial meeting and think about your expectations regarding your technology.



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