



PROS AND CONS OF A PCT APPLICATION

IP PORTFOLIO OF TESCAN

The cutting-edge scientific R&D potential of TESCAN is reflected in its impressive portfolio of 50 granted patents, 30 patent validations and over 30 pending patent applications. The company actively manages its IP to globally protect R&D investments. For this reason, TESCAN built a patent portfolio that literally covers the world including Europe, Eurasia, China, the US, South Korea, Australia, Japan, Brazil and Taiwan.

SUCCESS STORY OF TESCAN ROCKING STAGE

The TESCAN Rocking Stage is an invention that encompasses a device and a method to prepare extremely smooth sample surface in an electro microscopic environment. In its core, the TESCAN Rocking Stage is a very gentle sample polishing by ion or electron particle beam, which is essential for a better observation of samples for example during semiconductor failure analysis or advanced material characterization.

The patenting process of the TESCAN Rocking Stage is an example of the traditional route with a national patent application in the Czech Republic in 2013 followed by a PCT application and a patent application in Taiwan a year later. Based on the results of the PCT report, TESCAN filed for patents in the US and in Germany in 2016. Patents were granted in the Czech Republic, the US and Taiwan with the German patent still pending.

However, the TESCAN Rocking Stage patent story did not end here. TESCAN went on and filed another patent application for an improved invention based on the original one in 2020, and repeated the PCT and Taiwan patent application a year later. With the help of the patent application, the company secured its position in key markets and gained time to further develop the original invention based on customer feedback.



Introducing TESCAN

Founded in 1991, TESCAN ORSAY Holding has 14 subsidiaries with 550 employees globally. Half of the subsidiaries are R&D and production centres in France, US, Belgium and the Czech Republic. The rest provides a solid foundation for TESCAN's trading activities around the globe. The company is focused on research, development and manufacturing of scientific instruments and laboratory equipment including scanning electron microscopes, focused ion beam devices, and micro-CT solutions

TESCAN Brno is an essential part of TESCAN ORSAY Holding with headquarters in the Czech Republic. The company makes electron beam, focused ion beam and X-ray imaging systems. With over 3000 instruments sold globally and doubling the size of the production facility in 2019, TESCAN Brno is a progressively developing innovative R&D enterprise.

PROS AND CONS OF PATENTING AND THE PCT ROUTE

TESCAN uses patenting to create state of the art with an ultimate goal to slow down the R&D activity of their competitors. This strategy reduces the market for newcomers solutions and provides a stronger position for TESCOAN in a highly competitive environment.

Customers of TESCOAN also recognize the value of patents which increases the pricing potentials of the company's products. Strong patents also open up the possibility for licensing and change the negotiation position of TESCOAN with other companies.

On the other hand, having a patent portfolio with such broad geographical coverage has its challenges. Monitoring the market and enforcing IP rights is a difficult task in a fiercely competitive global market. Legal steps are costly and time consuming but are also necessary to reap the benefits granted by the patent protection. For this reason, TESCOAN carefully considers the pros and cons of patenting for each and every invention to optimize their patent strategy.

Patenting via the PCT route, however, has many extra benefits for the company:

- It postpones making the final decisions on the target countries and potentially saves money on costly national patent applications.
- It helps reduce the uncertainties in the early stage with an additional search report that can confirm the patentability of the invention, thus saving time and money on potentially not successful applications.
- With a single language and channel, it simplifies the communication during the early stage of the application which makes correcting any potential mistakes in the application easier.
- Eventually, this helps companies to enter into the national phase with a stronger application that provides better chances for a granted patent in the end.

On the negative side, the second phase of the PCT with national patent applications may bring some difficulties. These are mainly due to the fact that, in many cases, national patent offices repeat the search and request the same information that has been provided in the first phase. This is often time consuming and brings additional costs to patent applications.



Key takeaways

The PCT route provides many benefits when used wisely, but also has some less convenient aspects. However, PCT proves to be the most practical step for obtaining patent protection in multiple countries world-wide and PCT authorities are working on improving the system even further.

Certain offices, like the UK patent office, have opened a discussion about consolidating the search methods and principles of the PCT authorities and the national patent offices. This may help to reduce the repeated and often redundant work around the national patent search following a PCT application in the future, which will streamline granting national patents.

The TESCAN Rocking Stage patent story is also a great example that a PCT application does not go against the Paris route. In fact, it complements filing directly for national patents like TESCAN did it in case of a country, Taiwan, that is not a part of the PCT. This way, TESCAN could reap the benefits of a PCT application and extend the coverage of patent protection for additional countries based on the Paris convention.

