

DIGITALISATION & PATENTS

From your point of view, how does digitalisation affect the protection of intellectual property, particularly technical inventions?

"Protection" for technical inventions can in general be achieved by two different actual mutually exclusive strategies. The first strategy focuses on filing a patent application in order to obtain a legal monopoly to interdict the use of the patented inventions by third parties. The peculiarity of the second strategical path is to keep this essential information of the invention secret, that are required for putting the invention into practice. The latter has become more difficult particularly due to digitalisation. In the field of mechanical engineering, the essential information of an invention is often easily identifiable in 3D models, construction drawings and the like. Due to digitalisation, such information can easily, and without any major effort, be generated from physical products. Modern manufacturing methods create opportunities for the duplication of products, even though the original manufacturer tries to keep essential manufacturing information in-house. At least in the field of mechanical engineering, the traditional strategy of protecting technical know-how via intellectual property, particularly by filing patent and/or design applications seems to have become more relevant as a result of digitalisation.

Does digitalisation also affect the protection scope achieved by patenting an invention?

The main legal purpose of pat-

ents in Germany in general is to prohibit reproduction of the patented know-how for commercial purposes. Accordingly, duplicating patented products for private (noncommercial) purposes does per se not necessarily lead to an infringement of the respective patent. Digitalisation in combination with modern manufacturing methods, such as the so called 3D printing, bears the potential to partly shift manufacturing from companies to consumers and thereby potentially to noncommercial purposes. Depending on the material to be printed, 3D printers are nowadays available for less than €1,000 and can print products based on 3D models. Due to digitalisation these 3D models can be made accessible to consumers in a fast and cheap way. It appears to be quite unrealistic that 3D printing technology enables the production of complex technical products, such as cars or computers, under noncommercial circumstances. However, with respect to less complex products, such as tokens for board games, spare parts for technical devices and simple constructions of multiple parts, the 3D printing technology could lead to a self-supply generated by consumers. Such a development could make it more difficult for patent proprietors to protect their inventions from being duplicated.

Are there any legal restrictions for the noncommercial duplication of protected products?

The question, whether a duplication produced for noncommercial purposes represents a patent infringement, is particularly related

to the circumstances under which the private individual received access to the template (i.e. the 3D model) used for the duplication. Indirect infringement for example, which is known in most patent laws, could form the grounds on which to sue at least publishers of 3D models being capable of duplicating products with 3D printers. In addition, the German Copyright Act states that a duplication of protected work produced for private use is only allowed, if the template used for the duplication was not evidently illegally produced or made available to the public. Thus, there is a legal basis to avoid misuse of the exclusion for products being duplicated in noncommercial circumstances.

Overall, that sounds like digitalisation will make it more difficult to protect intellectual property. Do you see positive aspects of digitalisation in terms of the protection of intellectual property?

As part of digitalisation, information about commercial actions of companies become available to a broader extent and are easier accessible. This lowers costs and raises the chances of right holders to identify violations of their rights. Further, the rising amount of digitally available information in combination with modern analysis tools enables faster and more reliable estimations as to the validity of a patent. Consequently, both right holders and potential infringers can obtain more reliable information with respect to the legal situation. From a company's point of view, which desires to enter a market, the digital accessibility of IP rights enables cheaper and



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Nils T.F. Schmid specializes in traditional mechanical engineering. For his clients, especially medium-sized companies in Germany/Europe and Asian and American big corporations, he develops both German and global patent strategies and sees to their implementation with regard to the building up and management of patent and design patent portfolios.



more reliable information regarding the intellectual property situation on a specific market. Last but not least, digitalisation, in particular in combination with modern analysis tools, liberates professionals from repetitive time-consuming activities, thereby enabling them to deal with challenges arising from digitalisation. Overall, as long as right holders of intellectual property are aware of the challenges arising with digitalisation, the chances of the same seem to outweigh. **LM**