

Private sector companies are already stepping in to provide solutions to this effect. Bernstein Technologies, a Munich-based company, for example, allows firms to create a digital trail of records of their innovation processes using blockchain technology. Inventions, designs, and proofs of use are registered on the blockchain and a blockchain certificate proves the ownership, existence and integrity of any IP asset.<sup>56</sup> Registered information remains private thanks to cryptography.

While these could be valuable efficiency improvements, Blockchain will not alter the way patents are granted. More than the actual registration of patents, it is the management and enforcement of patent rights – and of IP rights in general – that Blockchain has the potential to transform.

### **(b) Simplified management and enforcement of IP rights**

Beyond proof of creation, use, ownership and registration, blockchain technology offers particularly interesting opportunities to administer, control the use of, and enforce IP rights.

This is particularly important for copyright, the management of which can be complex. Not only can ownership be hard to prove, but keeping track of who is using the work is equally difficult, and third parties wishing to use a work sometimes find it challenging to know who to approach to obtain a license. Once creations have been uploaded to the internet, it becomes extremely difficult for authors and performers to track, and be paid for, use of their work.

#### ***(i) Easier monitoring and licensing***

The use of Blockchain could make it easier for IP rights-holders to monitor and track the distribution of registered and unregistered intellectual property. Blockchain platforms such as Binded and Ascribe, for example, enable authors, once an online work is registered, to search through a whole set of sources in order to check who is using their work.

Blockchain could also facilitate licensing with individual parties and the assignment of rights via software, and one could imagine a system in which transactions involving the licensing and assignment of IP rights are entered on a blockchain in order to keep an immutable record of such transactions and help track their use.

The startup Ascribe, for example, offers the possibility of transferring, consigning or loaning digital creations via its blockchain-based platform, as well as of monitoring their use. In the case of trademarks, records entered on the blockchain could then be proof of use of the trademark. Another example is KodakOne, a blockchain