Fields of IP use

Which are the main IP fields of use?

The use of IP and its role in offering incentives for innovation varies across different fields of economic activity. For example, pharmaceuticals, chemicals, machinery, computer equipment and precision instruments represent an important share of total patents and play an important role in these industries (OECD, 2009; US Department of Commerce, 2012). For trademarks, the most intensive user sectors include audio and video equipment manufacturing, but also pharmaceutical and medicine manufacturing (US Department of Commerce, 2012). Different types of IP are used for specific activities, such as PVP and GI rights, in addition to patents, utility models and design rights, which are broader in scope. Trademarks differ in this regard, as they cover a wider field. It is worth noting that other dimensions will also shape the extent to which different countries' fields of economic activity rely on IP, notably the level of development. In countries with less developed research capacities, the use of patents is weaker across the range of activities.

What factors explain different impacts of IP across fields of economic activity?

Beyond differences in the type of IP, sector-specific characteristics impact on the uses made of IP. For instance, the legal framework for patents treats all sectors equally, but their implementation in practice imposes differences (e.g. some fields require much more extensive documentation than others). There are also other grounds for differences in terms of private returns – explaining different use patterns – as well as social returns ; one factor is the speed of innovation cycles. High turnover rates render IP requiring lengthy registration processes less valuable, as it might, once granted, be rendered obsolete by a new invention. The use of IP in such circumstances might heighten the attractiveness of providing protection for unregistered IP (e.g. design rights for textile sectors) as a way to incentivise innovation. This approach might also require focusing on improvements in registration processes.

Another factor is whether the sector involves complex or simple technologies. The former (e.g. for electronics products) will result in hundreds of patentable elements, whereas the latter case (e.g. chemicals) will involve a relatively discrete number of patentable elements. Complex technologies will effectively enhance the importance of cross-licensing agreements, which will then require the close attention of competition authorities.

An additional factor concerns the relationship of the IP-protected invention with the commercialised product. In the case of pharmaceutical inventions, the patent specification corresponds to the manufactured product that will be sold on markets. In the case of engineering, the link between the patented invention and the related innovation process is more complex, as incremental changes normally occur from the development stage to product release on the market. Therefore, the link between innovation and inventions is less close in certain sectors; however, this heightens the value of IP in generating the necessary funding.

Lastly, certain types of IP, such as patents, are also less attractive where innovations can be kept secret. For that reason, patents more commonly protect product innovations than processes. This suggests that a focus on other types of innovation policy is necessary to complement impacts.

What are the key policy dimensions regarding IP fields of use?

Common policy challenges include:

- How can IP systems be designed to reconcile the needs of actors in different sectors of the economy? What are the impacts of differential use patterns and intellectual property rights for innovation policies?

In important ways, IP provides differential incentives and contributes to innovation in certain fields of activity. While arguments can be made as to why the IP system cannot, from a legal and administrative perspective, treat users differently depending on their sectors of activity, the same argument does not have to apply to innovation policies using IP.

- What are specific policy requirements to support the role of IP for innovation in the biotechnology and pharmaceutical sector, for ICT sectors, creative industries, and agriculture?

IP and Innovation in ICT [1]
IP and Innovation in Agriculture [2]
IP and Creative Industries [3]
IP and Innovation in Biotechnology [4]

References

- OECD (forthcoming), National Intellectual Property Systems, Innovation and Economic Development, with perspectives on Colombia and Indonesia, OECD, Paris.

Links
[1] http://innovationpolicyplatform.org/content/ip-and-innovation-ict?topic-filters=12265
[2] http://innovationpolicyplatform.org/content/ip-and-innovation-agriculture?topic-filters=11996
[3] http://innovationpolicyplatform.org/content/ip-and-creative-industries?topic-filters=12291
[4] http://innovationpolicyplatform.org/content/ip-and-innovation-biotechnology-and-pharmaceuticals?topic-filters=12193