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# Intellectual property rights and innovation in firms

Intellectual Property (IP) systems can be critical for firms to transform their innovation potential and creativity into market value and competitiveness. Intellectual property rights (IPR) allow innovators to protect their inventions. They may also have multiple other functions, such as signaling current and prospective value to investors, competitors and partners, accessing knowledge markets and networks, and preventing rivals from patenting related inventions. Effective IP systems can facilitate access to finance and the development of markets for technology, both of which help innovative businesses. Such systems also provide incentives to invest in R&D and innovation, and can encourage technology co-operation with firms, universities and PRIs. IP systems need to fully take into account the new roles played in the economy by patents and other types of IP, and in particular how they relate to innovation (e.g. the increasing use of patents in opportunistic litigation). IP systems also need to ensure they take into account characteristics of today's innovative world.

### What is the IP system?

The acquisition and management of IPR are critical in helping firms transform their innovation potential and creativity into market value and competitiveness. Protecting an invention is only one of the many roles that IPR may play in innovative firms. Other functions that companies fulfill with IPR (OECD, 2011; Cohen, Nelson and Walsh, 2000) are:

- positioning in global markets, by opening up new commercial pathways or by segmenting existing markets
- signaling current and prospective value to investors, competitors and partners
- accessing knowledge markets and networks
- defending themselves from patent infringement suits
- blocking rivals from patenting related inventions
- using patents in negotiations over technology rights.

The role of IPR in accessing external finance is particularly important, especially in the risk capital market (see IP and markets for finance [1]).

### How does the IP system affect innovative businesses?

#### The IP system as an asset for innovative businesses

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### What other topics relate to the IP system and innovative firms?

R&D and other investment in innovations (see R&D and other investments in innovation [2]). Effective IP systems help protect firms' intellectual assets and prevent other firms from using them. IP thus helps firms recoup their innovation investment and consequently provides an incentive for investing in innovation. Besides, effective IP systems facilitate access to knowledge markets, enabling firms to buy and sell intellectual assets (e.g. through licensing), which may encourage R&D investment.

Technological co-operation between firms (see <u>Technological co-operation between firms</u> [3]). Effective IP systems are essential to technology collaborations, as they protect firms from involuntary knowledge leakage and reduce concerns related to the opportunistic behaviour of the partner.

Interface with universities and public research institutes(see Interface with universities and public research institutes [4]). The IP system creates an incentive for researchers and universities to engage in patenting and commercialisation activities. For instance, the adoption in many countries of legislative policies similar to the Bayh-Dole Act, which grants universities ownership over intellectual property, can encourage universities to patent and license academic inventions.

Markets for technology (see <u>Markets for technology</u> [5]). Intellectual property rights and patents are critical to the operation of the technology market. Patents can facilitate the realization of market deals, especially when knowledge is codified and hence easily imitable, as in that case both the disclosure and protection of technology is possible.

Access to finance for innovative firms (see <u>Access to finance for innovative entrepreneurship</u> [6]). To the extent that IP assets can be important signals for potential funders, the role of the IP system is strongly interconnected with venture capital (see <u>Venture capital</u> [7]) and business angel funding (see <u>Business angels</u> [8]) in particular. The development of markets where IP assets can be used as collateral strengthens its contributions to innovation.

What policies relate to the IP system and innovative entrepreneurship?



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Patents and other types of IP are increasingly serving more functions than those for which they were initially designed. For instance, they have become the preferential way to obtain property entitlements on intangible assets in order to gain access to external finance. They are also more frequently used in opportunistic patent litigation or to block the entrance of competitors. Reforms of the IP system should fully take into account how these new roles played by patents and other types of IP affect the innovation economy (see <a href="Processes and contributions of IP systems to innovation">Processes and contributions of IP systems to innovation</a> [9]).

For IP to support innovation in firms, the organization of IP systems (see Organisation of IP systems [10]) has to provide them with legal quality (see Legal quality of IP [11]). It is also critical innovative entrepreneurs can effectively access IP systems for their benefit. That requires also that enforcement costs (see IP enforcement and litigation [12]) are not forbiddingly high as well as the provision of suitable IP skills and training (see IP skills and training [13]) and relevant external advisory services for innovative entrepreneurs for IP matters.

It also depends on market conditions for IP such as the development of markets for finance and IP (see I<u>P and markets for finance</u> [1] and <u>Licensing and markets for IP</u> [14]).

#### References

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