Patent policies

Rationale and objectives

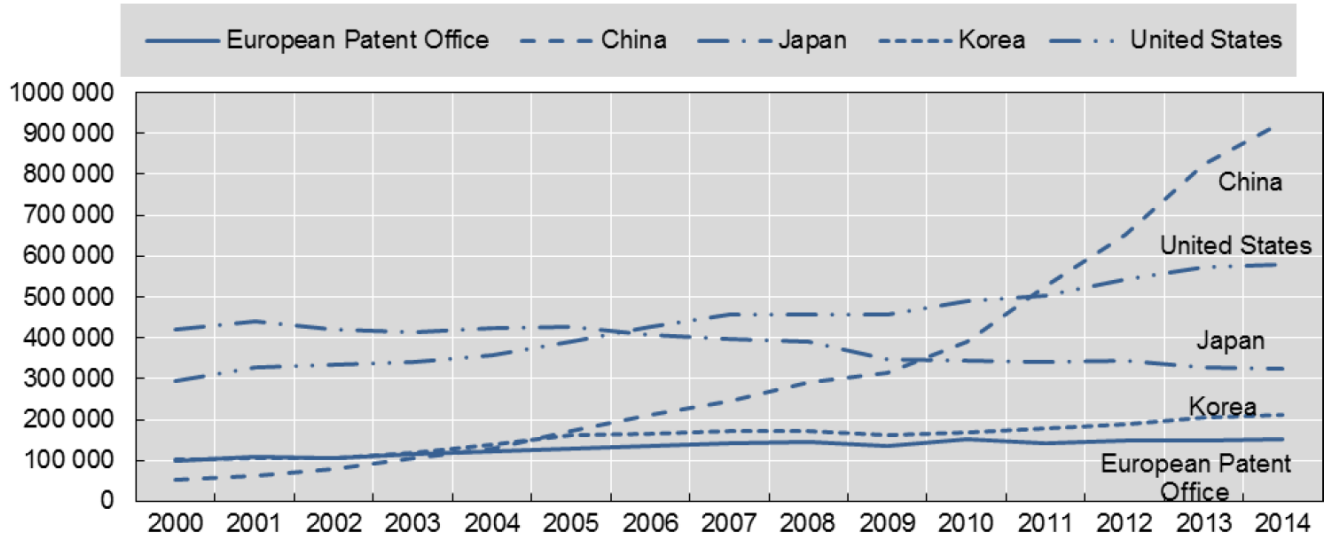
A patent is a legal title that gives the holder the right to exclude others from using a particular invention. If the invention is successful on the market, the patent holder will profit from its monopoly power. Patents therefore allow inventors to internalise the benefits they generate. Without such a mechanism, inventions could be imitated, which would reduce inventors' return on their investment. Patents are granted in return for disclosure of the invention and therefore play a role in the diffusion of knowledge. Inventors and firms apply for patents at patent offices, which grant or reject patents for their jurisdiction, mainly the domestic market, in accordance with their legal statutes. Most patent offices are national organisations; the main exception is the European Patent Office (EPO).

Major aspects and instruments

Patent filings have increased sharply worldwide, rising from 997 000 in 1990 to 2 681 000 in 2014 according to the World Intellectual Property Organization (WIPO). This rise was partly driven by a pronounced increase in patent filings in China and, to a lesser extent, in the United States (Figure 1 and see also the STI Outlook Chapter on Megatrends for STI). The first driver of the patent boom might be a surge in inventions, notably in leading technology sectors like ICT. Another driver might be globalisation: Inventors choosing to file in multiple countries have also been an important driver of the global patent surge. However, some observers have voiced concerns about a decline in patent quality and ascribed it, in part, to lower legal standards of novelty and a work overload among patent office examiners. Poor quality patents are often held responsible for the increase in dubious litigation for alleged infringement ("trolling") in certain jurisdictions over the past two decades, and patent offices and court decisions have sought to raise patent quality since the mid–2000s.

Figure 1. Patent filings, 2000-14

Number of applications in major patent offices

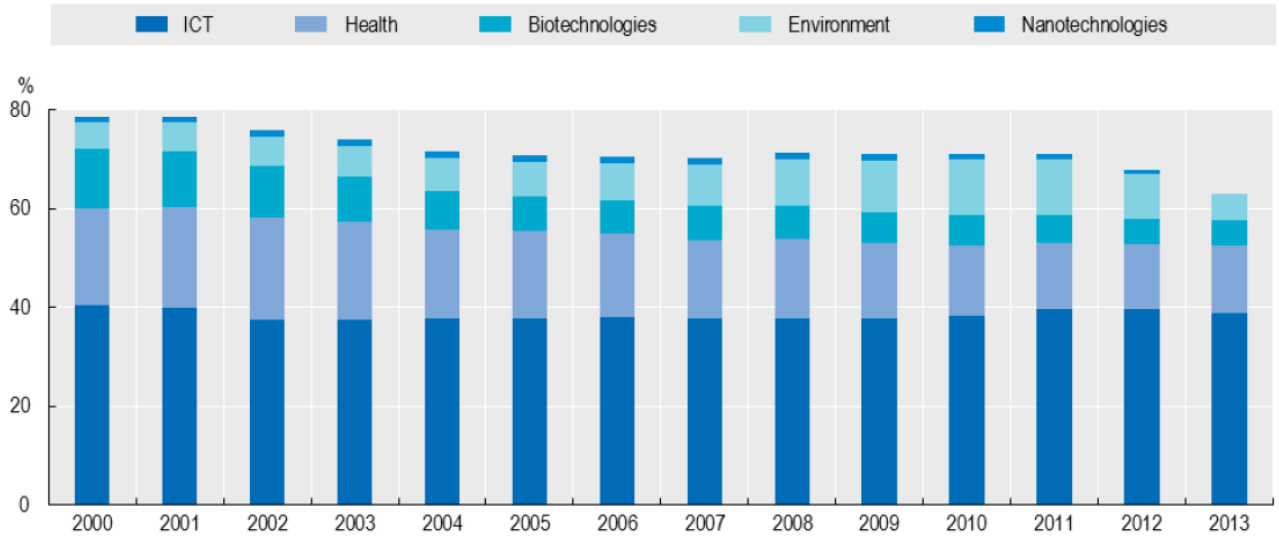


[1]

Over the last few decades, patents have expanded to cover new technical fields, notably software and genetic material, and in some countries to non-technical fields such as business methods. Certain actors have welcomed this trend, but other observers have noted that patenting in these fields potentially hampers the diffusion of technology, with possible negative impacts on inventive activities in areas closely aligned to science and to mental processes (which are non-patentable areas). Patents in information and communication technologies (ICTs), health and biotechnologies represent the majority of patent applications worldwide (Figure 2).

Figure 2. Patents by technology fields, 1999-2013

As a percentage of total patent applications under the Patent Co-operation Treaty (PCT)



Note: The data refer to counts of patent applications filed under the Patent Co-operation Treaty (PCT), at international phase, by priority date.

Patents in biotechnologies, nanotechnologies, health- and ICT-related technologies are based on a selection of International Patent Classification (IPC) classes.

Patents in environment-related technologies are identified by detailed search strategies that have been developed by drawing on more than 200 000 classification symbols. The search strategies encompass a broad spectrum of technologies related to environmental pollution, water scarcity, climate change mitigation. For further information: http://www.oecd.org/environment/consumption-innovation/env-tech-search-strategies.pdf.

Source: OECD Patent Database, June 2016.

StatLink http://dx.doi.org/10.1787/888933445201

[2]

According to WIPO, the average share of non-residents among patent owners worldwide increased from 31% in 1990 to 35% in 2012, coinciding with the globalisation of the economy. Over this period, efforts to make the patent system more global have increased. In particular, the Patent Cooperation Treaty (PCT), administered by WIPO, facilitates simultaneous patent applications in a number of countries (although the processing and the grant remain national). Collaboration among patent offices has sought to improve the compatibility of countries' patent laws. The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) initiated this trend. This international treaty, established in 1994 and implemented by the World Trade Organization (WTO), established a set of minimum standards for national laws to respect, including a broad definition of patent subject matter (all fields of technology, including drugs), a minimal statutory duration of 20 years, neutrality vis-à-vis the nationality of the patent applicant, etc. New procedures to reduce duplication of work by patent offices (notably search) have been set up, such as "patent prosecution highways" and a number of bilateral agreements between national offices to exchange work on particular applications.

The TRIPS agreement applies to all WTO member countries, with the exception of the least developed economies until 2021. Many emerging and developing countries have also implemented

the TRIPS to support domestic innovation. The inclusion of pharmaceutical compounds in the compulsory patentable subject matter has raised the issue of access to essential care for the poor. Therefore, some flexibility has been introduced, notably since the Doha Agreement which allows countries without sufficient manufacturing capability to import drugs from other Member States utilising compulsory licenses. Another issue in some developing countries is enforcement of patent rights. This requires a strong and independent judicial system, without which infringement may flourish. Countries such as China and India have made significant efforts as have others.

Recent policy trends

The world's largest IP five IP offices - The European Patent Office (EPO), Japan Patent Office (JPO), Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), and the USPTO – have continued collaborative efforts to improve global IP services via several initiatives. This includes Global Dossier Initiative, which as of 2015 introduced a portal to make it easier for patent applicants to quickly and easily view, monitor, and manage intellectual property (IP) protection around the world.

The European Patent Office has taken further steps towards the creation of unitary patent protection and of a Unified Patent Court. The unitary patent would be granted by the EPO and provide patent protection for the territory of the 25 Member States participating in the unitary patent scheme. The Unified European Patent Court would decide on the infringement and validity of European patents. The Agreement was signed by 25 EU Member States on 19 February 2013 and has, as of May 2016, been ratified by 9 states (Austria, Belgium, Denmark, France, Luxembourg, Malta, Portugal, Sweden and Finland). The regulation is to enter into force once 13 states (including France, Germany and the United Kingdom) have ratified the agreement.

Several other countries have also introduced legislative changes. In 2015, Japan's cabinet approved the Bill for the Act for the Partial Revision of the Patent Act and Other Acts, which introduces changes to the employee invention system, which enables the right to an employer to employees' inventions and the right to reasonable economic compensation to the employees for their inventions. Under the previous legislation there was substantial uncertainty regarding rights to employee's inventions. Further changes in Japan included the provision of post-grant opposition within 6 months of patent issuance (as of May 2015) and the reduction in patent application and annual fees by about 10% (as of April 2016). In Australia, the Intellectual Property Laws Amendment Act, which took effect from August 2015, introduced, among other changes, the right for Australia's pharmaceutical manufacturers to export patented medicines under a compulsory license to least developed and developing countries in need. It allows for a single patent application and examination processes for Australia and New Zealand to allow interested inventors to obtain patent protection for both economies. The new Spanish Patent Act ("Act 24/2015, on Patents"), which will get into force in April 2017, extends the kinds of inventions for which utility models can be obtained and expanded the novelty requirement to worldwide novelty. The new Patent Act also establishes a single administrative procedure for the grant of patents, removing the option of grant without substantive examination of novelty and inventive step. In Italy, the application procedures for patents have been streamlined as of 2015 and can now only be submitted via a centralized only portal of the Italian Patent and Trademark Office.

Many countries have also introduced new measures to improve IP enforcement. The United Kingdom has recently introduced a number of initiatives to improve criminal IP enforcement, including by the creation of the Policy Intellectual Property Crime Unit (PIPCU), an operationally independent law enforcement unit dedicated to tackling organised intellectual property crime, endowed with an overall budget for 2013-2017 of over USD 7.89 million- (GBP 5 million). France implemented several legislative reforms aimed at reinforcing its anti-counterfeiting legislation in 2014, including the Postal and Electronic Communications Code, the Internal Security Code, the Customs Code and the Intellectual Property Code. Reforms also involved introducing several measures that lower requirement on IP rights owners' to demonstrate infringements. Since September 2014 Italy's Patent and Trademark Office (UIBM) offers Anti-Counterfeiting call centre facility where firms can report

cases of counterfeiting. Also, changes to Germany's IP legislation aimed at improving the procedures of the German Patent and Trademark Office entered into force in 2014. This includes the provision of a written opinion by examiners as to the patentability of the application to help applicants decide on how to proceed with their application. Finally, China's State Council's 2015 Opinion on Accelerating the Building of IP Power under New Conditions also emphasized strengthening enforcement of patent and IP rights as a priority in the coming years. One measure introduced involved the creation of three IP courts in Beijing, Shanghai and Guangzhou, with the Beijing IP court being the first and starting operation in November 2014.

Various policy instruments have been implemented to support IP applications by private businesses, and specifically SMEs, and public institutions. Several countries, including Austria, Turkey and Korea, have formulated IP strategies that define actions aimed at encouraging the use of IP to spur innovation. Specific measures introduced include the creation of support and advisory services, such as technology transfer offices as provided in Belgium to the Brussels Institute for Research and Innovation and the creation of "patent brigades" project in Colombia that identifies and co-finances projects with patent protection (with a public budget of USD 0.85 million -COP 1.7 billion- and USD 0.75 million-COP 1.4 billion-of matching funds). Another related initiative is the UK's Business Coaching for Growth programme which aims at helping SMEs exploit their innovation potential, including specifically by making better use of patents and other types of IP. Furthermore, as of 2016, Germany's WIPANO programme offers assistance to higher education institutions, public research institutions and small and medium-sized enterprises (SMEs) to help them apply for and exploit patents with an annual budget of USD 17.75 million (EUR 16 million). The Czech Republic's INOVACE programme, that will run from 2014-2020, also supports the use of patents among other types of IP by the private sector.

Financing tools based on IP assets can help innovative firms obtain the capital they need for R&D investment, commercialisation and expansion. That is why several public initiatives have engaged in supporting IP finance. The United States and Japan among other countries IP financing schemes have gained in importance in past years. Many countries are consequently engaged in providing the conditions for IP finance: Norway has introduced legislation for intangible assets to be used as collateral, a measure is that is in force as of July 2015. In an effort to promote IP finance among the different stakeholders, the UK introduced an IP Finance Toolkit as of 2015. Developed with a working group consisting of representatives from banks, IP professionals, businesses and business support networks the toolkit is designed to help businesses to articulate the IP they have, how it is secured and how it supports the future cash flow of the business. Several emerging economies have also introduced government-supported IP financing models, including Singapore, Malaysia and China.

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See Chapter 2, Section 2.4 on the rationale for patents and their economic impact.

See Chapter 3 on patenting procedures across jurisdictions.

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Links
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