

Chapter 1

INTRODUCTION

Intellectual Property (IP) refers to a variety of mechanisms that have been established for protecting “creations of the mind”⁴, including:

- Patents for invention
- Utility models
- Industrial designs
- Trademarks
- Geographic indications

to protect industrial innovations, and

- Copyrights

For literary and artistic creations.

This report focuses on industrial property rights and almost exclusively on patents for Invention⁵. It is notable that the activity of patents for invention is recognised throughout the world as a useful indicator of innovative activity.

In order to obtain protection for their innovations, applicants for patents for invention may use the following types of granting procedures, or combinations of them:

- National procedures
- Regional procedures (for example, those created by the African, Eurasian, European and Gulf regional organizations)
- The Patent Cooperation Treaty (PCT) procedure

Each country and region maintains its own patent procedures with the intent of encouraging innovative activities and optimizing the regional benefits of innovation. Enhanced international cooperation led to the establishment of different regional and international patenting procedures. Nevertheless, patent law varies from country to country. The scope of an individual patent application can also differ according to location. These factors limit the degree to which the patenting activity in different countries and regions can be directly compared.

The patent systems at all IP5 Offices are based on the first-to-file principle and follow the Paris Convention. To a large extent, this drives the usage of the patent systems worldwide. A first patent

⁴ See also, World Intellectual Property Organization, “What is Intellectual Property?” www.wipo.int/about-ip/en/ and World Intellectual Property Indicators – 2016, <http://www.wipo.int/publications/en/details.jsp?id=4138>

⁵ Patents for invention are called utility patents in the case of the USPTO which are different from utility model patents as explained in Chapter 6.

application is usually filed to the local national authority to protect the invention, followed within a one year priority period by subsequent applications to expand protection to other countries.

Separate references are made to "direct" applications filed under national and regional procedures and "PCT" international phase applications, in order to distinguish the two subsets of applications handled by the patent offices. While applications filed under national procedures are handled by national authorities, regional applications are subject to a centralized procedure and usually only after grant do they fall under national (post grant) regulations. PCT applications are handled at first by appointed offices during the international phase. About 30 months after the first filing, the PCT applications enter the national/regional phase to be treated as national or regional applications according to the regulations of each designated office.

In this report, patenting activities are presented for the following six geographical blocs:

- The European Patent Convention (EPC) contracting states (**EPC states** in this report) corresponding to the territory of the 38 states party to the EPC at the end of 2016
- Japan (**Japan** in this report)
- Republic of Korea (**R. Korea** in this report)
- People's Republic of China (**P.R. China** in this report)
- United States of America (**U.S.** in this report)
- The rest of the world (**Others** in this report)

The first five of these blocs are called the "IP5 Blocs." Throughout the report, these blocs are referred to as blocs of origin on the basis of the residence of the applicant or as filing blocs on the basis of the place where the patents are sought.

The contents of each chapter in this report are briefly discussed below. With the exception of some items presented in Chapter 6, all statistics relate to patents for invention.

Please refer to Annex 2 for explanations of statistical and procedural terms that are used. The web version of the report has an additional annex including a glossary of patent-related terms. It also has a statistical table file that includes extended time series and graphs of much of the data found in this report⁶.

Chapter 2 - The IP5 Offices

A summary of the recent developments in each of the IP5 Offices is presented. Definitions for the budget item terminologies appearing in the chapter are provided in Annex 1.

⁶ www.fiveipoffices.org/statistics/statisticsreports.html

Chapter 3 - Worldwide Patenting Activity

An assessment of worldwide patent activity is presented in this chapter. This covers not only patenting activity at the IP5 Offices but in the rest of the world as well.

There is some indication of the interdependence and importance of the major geographical markets. The numbers of applications filed are presented in separate sections that use different definitions for counting. This provides a discussion of worldwide bloc-wise patenting activity for filings, first filings, applications, demands for national patent rights, grants and national patent rights granted. Next, a description of inter-bloc activity is presented, firstly in terms of the flows of applications between the IP5 Blocs, and then in terms of patent families, where a patent family is a defined group of patent filings that claims priority to a single filing⁷.

Statistics are derived primarily from the WIPO Statistics Database⁸, that includes data collected from each country and region.

Chapter 4 – Patent Activity at the IP5 Offices

This part of the report presents the substantive activities of the IP5 Offices and gives statistics on patent application filings and grants at the offices. Statistics are derived from IP5 Offices internal databases.

In the first part of the chapter, the statistics give insight into the work that is requested and carried out at the IP5 Offices.

Statistics are given for requests for patents with the IP5 Offices, including domestic and foreign filing breakdowns. Then, statistics are provided displaying the breakdown of applications by sectors and fields of technology according to the International Patent Classification (IPC)⁹.

Some comparative indication of the services that have actually been demanded may be seen in the statistics on granted patents. The numbers of grant actions by the IP5 Offices, broken down by the blocs of origin of the grants, are provided. The distributions of the numbers of grants per applicant are also described.

To illustrate the similarities as well as the differences in the granting procedures at the IP5 Offices, characteristics and statistics of the five patent granting procedures are given in the last part of the chapter. Work is not always performed at a comparable point in time at the various offices. Consequently, neither the number of applications filed nor the number of requests for examination is a perfect basis for a comparison of the offices.

⁷ For a further discussion of patent families, see the term definitions in Annex 2.

⁸ This edition refers to general patent data as of June 2017, and to PCT international phase application data as of June 2017, www.wipo.int/ipstats/en/index.html

⁹ www.wipo.int/classifications/ipc/en/

Chapter 5 – The IP5 Offices and the Patent Cooperation Treaty (PCT)

In this chapter, the influence of the PCT on patenting activities is displayed through worldwide activities broken down by geographical blocs and IP5 Offices, particularly in terms of proportions of patent filings that use the PCT, proportions of PCTs from the international phase that then enter the national/regional phase, the share of PCTs among applications, the share of PCTs among grants and the proportions of PCT usage within patent families. As with Chapter 3, statistics are derived primarily from the WIPO Statistics Database, that includes data collected from each country and region. Statistics are also included to describe the PCT related activities of the IP5 Offices including activities as Receiving Office (RO), International Searching Authority (ISA) and International Preliminary Examining Authority (IPEA).

Chapter 6 – Other Work

This chapter is dedicated to some other patenting activities that are not common to all of the IP5 Offices, as well as to work related to other types of industrial property rights. This supplements the information that is provided in the rest of the report.