

## **Chapter 1 INTRODUCTION**

### **DEFINITIONS OF TERMS**

There are various types of IP rights. They can be categorized as:

- Patents of invention
- Utility model patents
- Industrial design patents
- Trademarks
- Copyrights

This report concentrates on the first type, patents of invention.

Despite the existence of regional and international procedures, patent rights differ between countries. One reason is that patent law varies from country to country. With different patent laws and procedures, applications can have a different scope, e.g., with respect to the average number of claims included in one application. This is one of the reasons for the larger numbers of patent applications in Japan compared to Europe and the U.S. Variation in the scope of applicability of patent rights compromises to some extent the ability to compare patents between countries.

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

- National procedures,
- Supranational procedures, consisting of:
  - Regional procedures (for example the European, Eurasian or African Intellectual Property Organizations), and the
  - International PCT.

While applications filed under national procedures are handled immediately by national authorities, regional applications are first subject to a centralized procedure and only after they have eventually been granted do they enter the national post grant procedures. International applications filed under the PCT are first handled by appointed offices during the international phase. Then after about 30 months from the priority date, they enter the national/regional phase to be handled as national or regional applications in each designated office. Reference is often made to "direct regional" applications as opposed to "PCT regional phase" applications in order to distinguish the two subsets of applications handled by regional patent offices.

In this chapter, the statistics presented in the report and the relations between them will be briefly described. All statistics apart from some of those in Chapter 6 relate to patents of invention only.

Statistics are presented in accordance with the following definitions:

- **Domestic applications** are defined as all demands for patent rights made by residents of the country where the application is filed. For the purpose of reporting statistics for the EPC contracting states considered as a bloc, **foreign applications** are given with regard to the applications made by non-residents of the EPC bloc as a whole. For example, applications made by French residents in one of the other the EPC contracting states are counted as domestic demand in the EPC bloc.
- **First filings** are applications filed without claiming the priority of another previous filing, and all other applications are **subsequent filings**. The subsequent filings usually have to be made within one year of the first filings. In the absence of a complete set of available statistics on first filings, it is assumed in this report that domestic national filings are equivalent to first filings<sup>4</sup>, and that PCT filings are subsequent filings.
- Four geographical blocs are defined. The **EPC contracting states**<sup>5</sup> (corresponding to the territory of all the states party to the **EPC contracting states** at the end of the reporting year), **Japan**, the **U.S.**, and the rest of the world referred to as the bloc “**Others**”.
- Demand for patent protection is considered principally by counting each **supranational application** only once. However, alternative presentations are also given in some places in terms of the **demand for patent rights**, after cumulating the number of designated countries in each supranational application.

Direct national and direct regional applications are counted in the year they are filed.

**PCT applications** are usually counted in the year they enter the national (or regional) phase. In some parts of this report they are counted by the year of filing in the international phase.

- **Grants** are generally reported as recorded by the WIPO in its Industrial Property Statistics series.<sup>6</sup> They are counted in the year they are issued or published.
- A **patent family** is a group of patent filings that claim the priority of a single filing, including the original priority forming filing itself, and any subsequent filings made throughout the world. The set of distinct priority forming filings (that indexes the set of patent families) in principle constitutes a better proxy measure for the set of first filings than the set of aggregated domestic national filings added to first filings at the EPO. **Trilateral patent families** are a filtered subset of patent families for which there is evidence of patenting activity in all trilateral blocs. Other types of filters can be applied to select patent families of high importance. For example, a subset of Trilateral patent families known as “Triadic patent families” is currently reported in OECD publications.

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<sup>4</sup> Except in the section on patent families, for estimation of the numbers of first filings in the EPC bloc, an approximation is made by adding first filings at the EPO to aggregated domestic national applications in the EPC contracting states. In the section on patent families, data are available on first filings as those that do not quote the priority of other filings.

<sup>5</sup> Referred to as “**EPC States**” in the graphs.

<sup>6</sup> WIPO’s Industrial Property Statistics are available at <http://www.wipo.int/ipstats/en/statistics/patents/index.html>.

<sup>5</sup> Web annex can be found at: [http://www.trilateral.net/tsr/tsr\\_2006/annex3.pdf](http://www.trilateral.net/tsr/tsr_2006/annex3.pdf) Estimated date: Nov. 1, 2007.

Further definitions for statistics on procedures are given in Annex 2. Definitions of patent related terms can be found in the glossary located in the web annex.

## **Chapter 2**

In this chapter, a summary of the recent developments in the Trilateral Offices is presented. Further information on budget item definitions is given in Annex 1.

## **Chapter 3**

This chapter provides an assessment of the development of worldwide patent applications. Statistics in this chapter are derived primarily from the Industrial Property Statistics of the WIPO.<sup>7</sup> Patent statistics are sometimes retrospectively updated, so where necessary and possible the counts have been augmented from other sources. But otherwise no estimated counts have been included to compensate for missing data.

The number of inventions for which a patent application is filed is less than the total number of applications completed. Generally for each invention, one application is filed first in the country of residence, followed within a period of one year by applications to as many foreign countries as required, each such foreign application claiming the priority of the earlier application. First filings can be seen as an indicator of innovation and inventive activity, while foreign filings are a measure of international trade and globalization.

Chapter 3 also provides an indication of the interdependency and importance of the major geographical markets. The development of the total number of applications filed worldwide is given first. Next, there is a discussion of bloc-wise patent activity (first filings, origins of applications, targets of applications, patent grants). This is followed by a description of inter-bloc activity, firstly in terms of the flows of applications between the trilateral blocs, and then in terms of patent families.

## **Chapter 4**

This part of the report considers the substantive activities of the Trilateral Offices.

Statistics are given for applications filed with Trilateral Offices from each filing bloc, also showing domestic and foreign filings. Direct applications to the Offices are counted at the date of filing. PCT applications are counted at the moment they enter the national or regional phase. Part of the demand for patent rights in the EPC contracting states is processed through the national offices and is not considered in this chapter. The demand at the EPO is given in terms of applications rather than in terms of designations.

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<sup>7</sup> The WIPO data used is as of June 17, 2007.

Statistics are provided on the breakdown of applications by fields of technology according to the IPC.

Although patent applications filed do indeed represent demands for services, the work is not always performed at a comparable point in time. Consequently, neither the number of applications filed nor the number of requests for examination is a perfect basis for comparison. Some indication of the services that have actually been demanded can be provided using statistics on granted patents.

Further analyses of patent grants are also provided, in terms of the blocs of origin of the grants and the distributions of numbers of grants per applicant. In Chapter 4, the numbers of grant actions by the Trilateral Offices themselves are described, even though grants by the EPO lead to multiple patents in the designated the EPC contracting states.

To illustrate the similarities as well as the differences in the granting procedures at the three Offices, comparisons are given of the characteristics and statistics of the trilateral patent granting procedures in the last part of Chapter 4.

## **Chapter 5**

This chapter shows how the PCT impacts patenting activities, particularly at the Trilateral Offices. PCT work includes the actions required by the three Offices for PCT applications in the international phase as Receiving Office (RO), International Searching Authority (ISA) and International Preliminary Examining Authority (IPEA).

Most of the data were obtained from the WIPO Industrial Property Statistics, as collected from each country and region.

## **Chapter 6**

This chapter is dedicated to the other activities the Trilateral Offices are performing that are not common to all three Offices, as well as work related to other types of industrial property rights.