

Chapter 1

INTRODUCTION

DEFINITIONS OF TERMS

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

- Patents of invention,
- Utility model patents,
- Industrial design patents,
- Trademarks, and
- Copyrights.

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

Despite the existence of regional and international procedures, patent rights do 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 basic reasons for the differences between numbers of patent applications in Japan compared to Europe and the United States. The existence of differences in the scope of applicability of patent rights compromises to some extent the ability to compare patents from different 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 or the African Intellectual Property Organization), and the
 - **international** Patent Cooperation Treaty procedure (PCT).

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:

- Four geographical blocs are defined. The **European Patent Convention (EPC) contracting states**² (corresponding to the territory of all the states party to the EPC at the end of the reporting year), **Japan**, the **USA** 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 **demand for patent rights**, after cumulating the number of designated countries in each supranational application.

² Referred as "**EPC States**" in the graphs.

- Filings of **PCT applications** are counted in the year of filing in the international phase, which is the first part of the PCT procedure.
- **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 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 filings³, and that PCT filings are subsequent filings.
- **Grants** are reported as recorded by the WIPO in its Industrial Property Statistics series⁴. 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, the subset of Trilateral patent families known as “Triadic patent families” that are currently reported in OECD publications. These require achievement of an application to the JPO and the EPO itself rather than to any patent office in the EPC contracting states. They also require that there be a grant at the USPTO rather than only an application there.

Further definitions for statistics on procedures are given in Annex 2.

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.

³ 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.

⁴ WIPO's Industrial Property Statistics are available at <http://www.wipo.int/ipstats/en/statistics/patents/index.html>

The number of inventions for which a patent application is filed is less than the total number of applications made. Generally for each invention, one application is filed first in the country of residence, followed 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.

This chapter also gives 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. The aggregate demand for services in the patent procedures of the Trilateral Offices is not exactly equivalent to the overall demand for patent rights. For example, the designated offices do not examine PCT applications definitively until they enter the national or regional phase.

Statistics are given for applications filed with Trilateral Offices from each filing bloc, also showing domestic and foreign filings. Direct applications to the Trilateral 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 therefore does not result in workload for the EPO. The demand at the EPO is given in terms of applications rather than in terms of designations.

Statistics are provided on the breakdown of applications by fields of technology according to the International Patent Classification (IPC).

Although the 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. Taking into account the fact that the percentage of applications that are granted is generally constant in each of the three procedures, some indicator of services actually demanded can nevertheless 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 in terms of 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 EPC contracting states.

To illustrate the similarities as well as the differences in the granting procedures at the three offices, characteristics of the trilateral patent granting procedures are shown in the last section 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, international search authorities and international preliminary examination authorities.

Most of the data were obtained from the WIPO Industrial Property Statistics, as collected from each country and region. However, some statistics (e.g. national stage entry figures, international searches information, and international preliminary examination information) were provided by the Trilateral Offices.

Chapter 6

The last 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.