

THE UNITARY EUROPEAN PATENT AND ITS APPLICATION IN THE PERIOD 2023-2025

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Abstract

In this report, we focus on the Unitary European patent. As one of the last options provided by the European Patent Office (EPO) to applicants, the unitary patent is increasingly being used. This is a prerequisite for us to analyze the number of applied and granted Unitary European patents in the period 2023-2025. For this purpose, we use data provided by the Statistical & Trade center at the EPO and highlight the existing trends in the structure and dynamics of the granted Unitary European patents. As a result of the study, we highlight the leading countries, the holders of which have applied for a unitary effect for their European patents, as well as the technological areas to which the activity of the leading patent holders is directed.

Keywords: unitary patent, United European Court of Justice, technology fields.

INTRODUCTION

On the issues of the advantages and disadvantages of the creation and implementation of the Unitary European Patent System, much has been written [1]-[5]. Decades after the first mention of the idea of Unitary European patents in 1975 during the signing by the member states of the European Economic Community of the Convention for the European Patent for the Common Market [6],[7] and after the normative documents adopted by the European Parliament and the Council of the European Union [8]-[11], as of June 1, 2023, the operation of the Unitary European System is a fact.

In view of the development of the unitary European patent system, **the object** of the study is the patent activity conducted within the EPO, and **the subject** of the study is the applied and granted unitary European patents.

The aim of this study is to highlight the development in the application of unitary

patents after the introduction of the Unitary European System.

The formulated goal is achieved by performing the following **tasks**:

- To define the essence and scope of the unitary patent system.
- To analyze the number of applications filed and the number of issued unitary patents in the period 2023-2025.
- To highlight the technological areas and areas with the highest concentration of patent rights.
- To bring out the countries with the largest number of granted unitary patents.

The main **hypothesis** of the study is:
There is a growing interest on the part of patent holders of a European patent in the acquisition of a unitary patent.

The contribution of the study is to outline the application of the Unitary European patent from 2023 to 2025.

UNITARY PATENT SYSTEM

The EU unitary patent can be applied for by patent holders up to one month after the grant of a European patent. A patent with unitary effect is valid only on the territory of the countries participating in the unitary patent system (see Figure 1).



Fig. 1. Coverage of a unitary patent [12]

From the countries marked in blue (see Figure 1), we can see that as of 1 October 2025, the territorial scope of the unitary patent extends to 18 countries, as follows: Austria, Belgium, Bulgaria, Denmark, Estonia, Finland, France, Germany, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Romania, Slovenia, Sweden. The EU expects that in the coming years the effect of the unitary patent will be extended to a total of 25 countries.

The procedure for obtaining a unitary patent is presented in Figure 2.

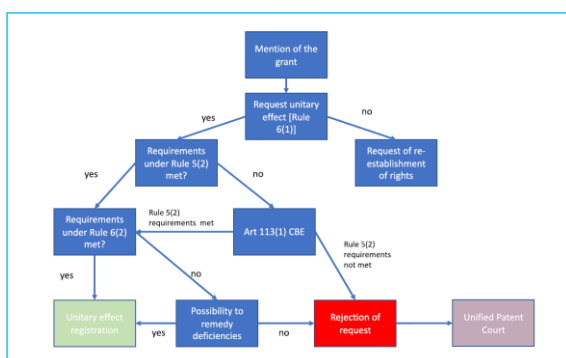


Fig. 2. Procedure for granting a unitary patent [13, p.2]

The main characteristic features of the Unitary European patent are:

- unitary effect – uniform legislation is applied to all member states of the system, regardless of the presence/absence of

differences in national legislation. Thus, the need for complex and expensive national procedures for validation of the unitary patent in each country is eliminated [12].

- publications in one of the official languages – the publication is made in English, German or French, and no translation into the official language of the other countries where patent law is recognized and applied.

- lower fees – the fees for maintaining the validity of the unitary patent are nearly 30% lower than those for maintaining individual national patents for the territory of the member states of the Unitary Patent System (see Figure 3) and are paid only to the European Patent Office. Fees for the examination of the application for single effect shall not be paid.



Fig. 3. Comparison between the fees paid for a unitary patent and for coverage of a national patent [13, p.3]

An essential point in the unitary patent system is the creation of a Unified Patent Court, whose function is to consider all issues concerning the rights to patents with unitary effect.

The structure of the Unified Patent Court (see Figure 4) includes a Court of First Instance, a Court of Appeal, and a Registry, in support of which a Patent Mediation and Arbitration Centre have been established, encouraging the conclusion of out-of-court settlements. The Court of First Instance is centralized in Paris and assisted by sections in Munich and Milan and regional units located in Europe. The Court of Appeal is

based in Luxembourg. It rules on appeals against decisions of the Court of First Instance and examines requests for a rehearing of final judgments delivered by that court [14], [5].

The decisions of the Unitary Patent Court have effect and are enforced by all Member States of the Unified System that have ratified the Agreement on the Unitary Patent Court.

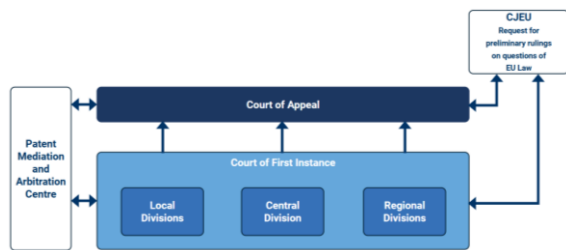


Fig. 4. Structure of the Unitary Patent Court [14]

Here we can point out that the outlined characteristics, procedures for action and territorial coverage of the Unitary Patent System both attract and repel patent applicants, due to still unclarified issues such as the ways of gathering evidence in case of established infringements and the handling of disputes for infringements of patented inventions established on the territory of the different Member States [5].

APPLICATION OF THE UNITARY EUROPEAN PATENT

To establish the dynamics in the application of the Unitary European patent, we analyze data extracted from the EPO Statistics and Trade Center [15].

The dynamics of the application activity conducted in the period January 2023 – October 2025 is presented through Figure 5.

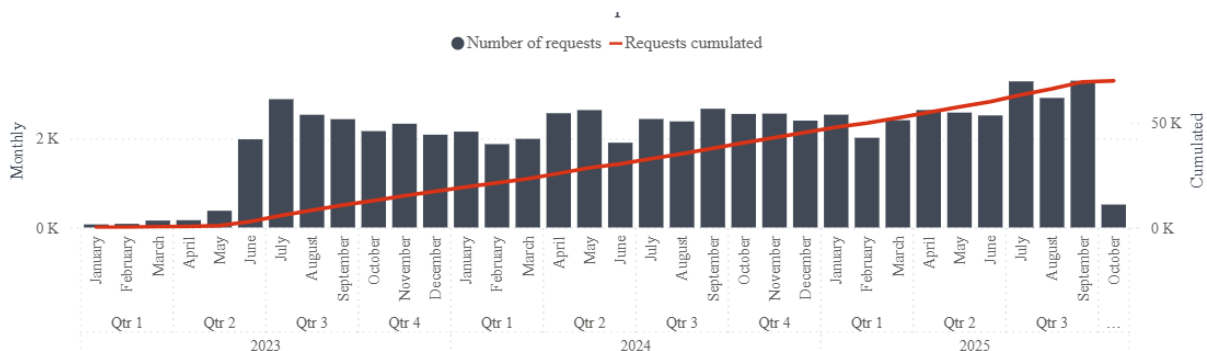


Fig. 5. Dynamics of patent application activity for obtaining a unitary patent [15]

The dynamics of the applied rights to a unitary patent clearly shows the tangible growth in the applicant's interest during the period under study. Figure 5 includes information on applications submitted before the official launch of the Single System (1 June 2023), as of 1 January 2023, the system is in transition. It allows applicants in the final stage of the process of patenting and obtaining a European patent to delay its grant to be entitled to unitary action or to file an early application for a unitary patent [16].

The total number of applications submitted during the defined period was 70,073, with a refusal to grant a single action to 1.62% of them. Of the remaining 68,938

unitary patents granted, 0.9% expired/terminated (see Figure 6).

Considering that we find the highest patent activity in the third quarter of 2025 (Table 1), we compare the reported growth compared to the beginning of the study period, shortly after the official launch of the system.



Fig. 6. Distribution of patent activity for obtaining a unitary patent [15]

From the distribution of application activity, in the third quarter of 2025. ($Q3_{2025}=9488$) the applications submitted were 20.9% more than those submitted in the same quarter of 2023 ($Q3_{2023}=7847$).

Table 1. Comparison of application activity by quarter in the period 2023-2025

	2023	2024	2025
Q1	527	6017	6959
Q2	2828	7108	7736
Q3	7847	7487	9488
Q4	6579	7509	-

Source: calculated by the author based on data from [15]

A similar comparison with the other periods also shows an increase in the application activity compared to the same quarter in previous years. An exception is observed only in $Q3_{2024}=7487$ when the total submitted applications are less than $Q3_{2023}=7847$.

The data on the origin of the applicants (see Figure 7) show us that the highest interest in the unitary patent during the study period was shown by persons (legal and individuals) from Germany (13,071 applications), the USA (10,933), France (4,764), China (4,303), Italy (3,978).



Fig. 7. Origin of unitary patent applicants [15]

In summary, we present the structure of the application activity in Figure 8, which clearly shows the preponderance of the EPO Member States over the other applicants.

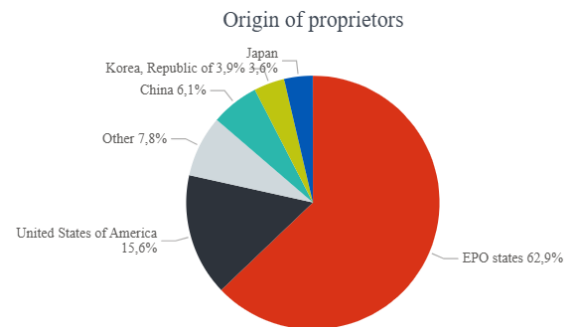


Fig. 8. Structure of the origin of the application activity [15]

A crucial point in the analysis of patent application activity is its technological orientation. Through Figure 9, we present the technological areas in which the inventive potential of applicants is concentrated.

The most interesting among applicants is the *Medical Technology* (12.3%), the activity in which is 2.2 times stronger than the activity reported in the second most interesting direction for applicants – *Measurements* (5.6%). On the third and fourth positions in terms of interest are the fields of *Digital Communications* (5.4%) and *Computer Technology* (5.4%), followed by *Transport* (5.2%), *Civil Engineering* (5.0%), and *Other Specialized Machinery* (5.0%). The rest of the technological fields have an activity of less than 5%.

WIPO technology fields (IPC)									
Medical technology	Digital communication	Civil engineering	Handling	Furniture, games	Engines, pumps,...	Control	Basic ...	Audio...	Optics
	3 815	3 504	2 789	2 189	1 636				
	Computer technology	Other special machines	Pharmaceuticals	Mechanical elements	Biotechnology	1 462	1 306	1 263	1 223
8 612	3 773	3 476	2 569	2 132	1 556	Materials, me...	Envir...	Mac...	Foo...
Measurement	Transport	Electrical machinery, apparat...	Other consumer goods	Chemical engineering	Organic fine che...	1 179			
				2 011	1 524	Textile and p...	977	828	796
3 946	3 633	3 288	2 325	1 970	1 524	1 108	Surface te...	A...	IT...
						Thermal process...	738		
						Telecommuni...	Semicond...	494	466
						1 082		Ba...	

Fig. 9. Technological directions to which the application activity for obtaining a unitary patent is directed [15]

The summarized data on the application activity by technological areas are presented in Table 2.

Even though the technological area with the greatest interest in obtaining a unitary patent among the applicants is *Medical Technology*, the technological area of *Instruments* (22.5%), in which it falls, remains in the second position in terms of interest after the area of *Mechanical Engineering* (26.1%). The third most filed applications for acquisition of a patent with uniform effect are the areas of *Electrical Engineering* (20.7%), followed by the technological area of *Chemistry* (19.3%) and *Other fields* (11.4%).

Table 2. Distribution of application activity by technological areas

Technological areas	Number	Share (%)
Electrical engineering	14,506	20,7
Instruments	15,737	22,5
Chemistry	13,521	19,3
Mechanical engineering	18,268	26,1
Other fields	8,018	11,4
Total	70,050	100

Source: compiled by the author based on data from [15]

By analyzing the source of the submitted applications for the formation of the technological appearance of the applicant activity, we acquire information about the institutional affiliation of the applicants (see Figure 10). Structurally, the application activity is formed by the business sector, with the share of large enterprises being

60.3% and that of small and medium-sized enterprises (SMEs) and individuals being 32.1%. With the smallest share (7.6%) is the Higher Education sector, which also includes research institutions.

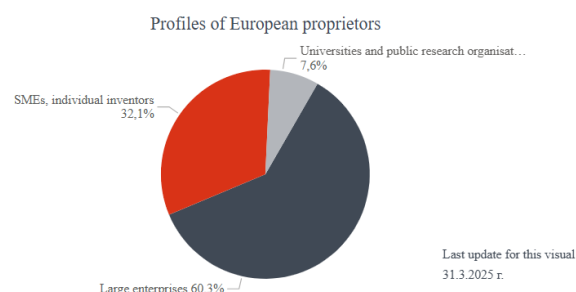


Fig. 10. Institutional structure of application activity [15]

The significant share of the business sector in the formation of the application activity is a prerequisite to take a closer look at the data on the companies forming this activity.

In summary, patent application activity (see Figure 11) is formed by 17 companies with its registered office in the territory of an EPO Member State, three companies based in the USA, two in China, one in South Korea, one in India and one in Hong Kong.

The top three companies with the highest application activity recorded in the period January 2023 – September 2025 are: Siemens AG, Johnson & Johnson and Samsung Group. They account for 32.6% of the total application activity conducted by the Top 25 companies (see Figure 11).

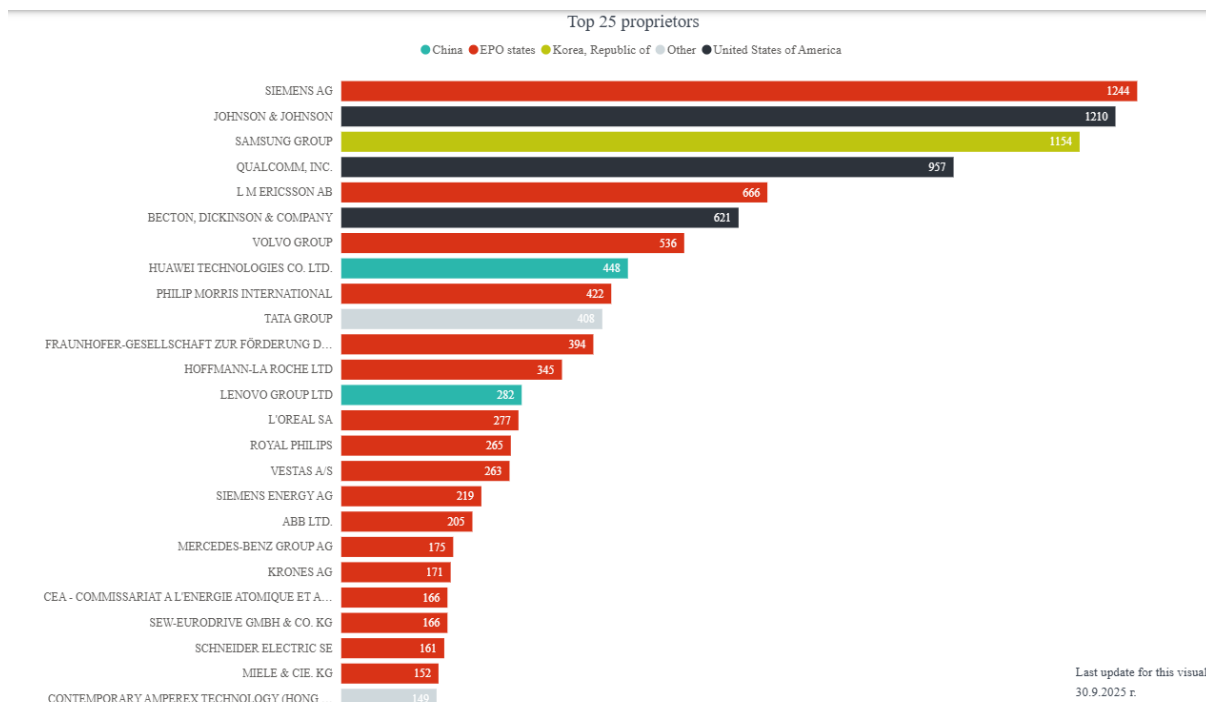


Fig. 11. Companies with the largest participation in the formation of patent application activity [15]

CONCLUSION

As a result of the research, we have outlined the main definitive features of the Unitary European Patent System, its structure, procedures, and scope. In addition, we analyzed the dynamics and structure of patent activity and identified the leading countries whose holders have applied for unitary effect for their European patents, as well as the technological areas to which the activity of the leading patent holders is directed.

In conclusion, we can consider the following more significant findings:

First. For the period of research, we report an increase in the number of applied European patents with unitary effect, which proves the derived *Hypothesis*, according to which “... growing interest on the part of patent holders of a European patent in the acquisition of a unitary patent”.

Second. In structural terms, 62.9% of patent activity is formed by applicants from EPO Member States (Germany realizes 18.7% of them), the USA (15.6%) and China (6.1%). This is indicative of the important level of innovation activity and the commitment of applicants from the respective countries to offer innovative

services and goods through which to “meet individual and collective needs” [17, p.53] of society.

Third. The technological specialization of patent activity clearly highlights the priority focus of applicants on the field of *Medical Technology* (12.6%) and *Mechanical Engineering* (26.1%).

Fourth. The institutional structure of the application activity clearly underlines the importance of the business sector in achieving the observed growth in the number of Unitary European patents applied.

Finally, it should be noted that despite the authors' views expressed regarding the advantages and disadvantages of the unitary patent system [1],[4],[6], there is still a growing interest in obtaining a Unitary European patent by applicants, regardless of the existing socio-economic differences between them [18].

Through the proposed research, we provide stakeholders with another opportunity to secure legal protection over compliant inventions and present an international interest in acquiring a patent with unitary effect. The experience of leading companies holding Unitary

European Patents, presented in this study, can serve as an incentive for other European market participants to follow suit and ensure uniform effect for their European patents.

In the future, we can deepen the proposed study in the direction of analyzing the performance of inventors from specific countries with the highest concentration of patent rights and expand the scope of research by tracking whether in the coming years there will be a trend of growth in the number of applied and granted rights to European patents with unitary effect.

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