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DOI: 10.2478/9788367405973-002

ONE YEAR WITH THE UNITARY PATENT IN THE LIGHT OF SIX PRIORITIES - THE GOOD, THE BAD AND THE UGLY

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Abstract

Following its Six Priorities, the EU is committed to sustainability and competitiveness and the unified single patent protection should boost it. After years of struggles, on 1st June 2023, the Unitary Patent System (UPS) was launched. Consequently, for over one year, the granting of the Unitary Patent as the legal title providing uniform patent protection in the majority of EU member states is a reality. The one-stop-shop basis for the administration, the single patent jurisdiction of the Unified Patent Court (UPC), lowering costs and administrative and other burdens arguably made the Unitary Patent an excellent pro-sustainability and pro-competitiveness instrument for Europeans. Is this the truth, an illusion or a chimera? An overview of the set regime and critical processing of data from Eurostat and EPO about its one-year operation brings a colourful picture. As the EU is diversified, so is the perception of the UPS, in particular its sustainability and competitiveness impact.

Keywords

Competitiveness, EU, Sustainability, Unitary Patent, Unitary Patent System (UPS)

I. Introduction

The evolution of humans has been taking place within multiple webs of scientific, technological and other connections within and between intersecting spheres (Dodman *et al.*, 2020). For 250 years, since the Industrial revolution, humans have developed their inclination to transform the environment permanently and irreversibly (Barbiero, 2021), their capacity to build and share knowledge (Dodman *et al.*, 2020) and their creativity to resolve problems while using technology (MacGregor Pelikánová & Beneš, 2023). Such a human genetic predisposition to quickly recognize environments rich in resources and exploit them in an intense and even exhausting and selfish manner (Barbiero, 2021) creates a myriad of negative consequences. Nature is not something external to us (Dodman *et al.*, 2020) and the current era faces a set of dramatic environmental and social challenges of which perhaps the most serious is climate change (Jones *et al.*, 2023: 4). The imbalances and inequalities of the resources and their use (Dodman *et al.*, 2020) along with values discrepancies (MacGregor Pelikánová & Sani, 2023), are perceived as underlying causes. Since its establishment until now, the United Nations (UN) has been addressing these issues, see 1948 UDHR with the living standards (Art. 25) and the protection of the intellectual property (IP) (Art. 27) and 1987 Brundtland Report with the direct tying of poverty, inequality and environmental degradation and with the implied establishment of three pillars of sustainability (Purvis et *al.*, 2019) to be cemented by the academic literature (Brown *et al.*, 1987). Four decades later, it is correctly proposed that the great challenge of sustainability is to overcome personal selfishness, as this is crucial for protecting ecosystems and achieving the threefold goal of economic performance, environmental protection and social progress (D´Adamo, *et al.* 2014), and that the competitiveness depends upon the mastering of IP (MacGregor Pelikánová, 2019).

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UN pro-sustainability international policy and law endeavours have been developed with and strongly backed by the EU (MacGregor Pelikánová *et al.,* 2024). The EU is aware that we are living in uncertain and turbulent times (Van Tulder & Van Mil, 2023: 1) and so it is active on international, regional and even national levels in order to promote environmental and social awareness and protection, in particular to limit global warming by decarbonizing the world economy (Jones et al., 2023: 5). This demands a transformation which needs the implementation of many innovations based on inventions. Already Joseph Alois Schumpeter explained the critical importance of innovations for positive (not only) economic change and appreciated the need to provide temporary monopoly (patents) to provide incentives for ideas (inventions) and their speedy transposition and implementation (innovations) (Schumpeter, 1934).

The EU knows that sustainable development and competitiveness cannot be achieved in our highly competitive global society without smooth innovations and without a shift from tangible to intangible resources (MacGregor Pelikánová, 2019). Both the sustainability and competitiveness need creative solutions for pre-existing problems (inventions) to be implemented (innovations) while receiving the very needed temporary monopolistic protection (patents) (MacGregor Pelikánová & Beneš, 2023). Further, the EU acknowledges that inventions and innovations are typically the result of an unpredictable and financially demanding research and transposition process generating valuable IP assets, i.e., costs and risks are their integral and inevitable parts (MacGregor Pelikánová, 2019).

The EU has been heralding the smart, sustainable and inclusive growth since 2010, see the decade-long strategy Europe 2020, as well as the protection of intellectual property and legislation stimulating competitiveness and sustainability reporting (MacGregor Pelikánová & MacGregor, 2020) and fighting against typical abuses, such as greenwashing (MacGregor Pelikánová & Rubáček, 2022). Indeed, Europe 2020 set as one of its five targets a threshold of at least 3% of the EU Gross Domestic Product (GDP) to be invested in research and experimental development (R&D) in order to achieve innovations for sustainability and competitiveness. However, despite the common agreement and massive empirical evidence about the need to invest in R&D, the positive relation between GERD and the appropriateness of this threshold, it was attained by only a tiny minority of EU member states (MacGregor Pelikánová, 2019). Such a failure did not shake the conviction of the European Commission and its determination to implement UN Sustainable Development Goals (SDGs), and to go further with reporting (Van Tulder & Van Mil, 2023: 742), and perhaps even ordering, in the drive to make the EU sustainable and competitive (Rubáček *et al.,* 2023). This became even reinforced under the auspices of the Political Guidelines for 2019-2014 "Keeping our promise to Europe" with the famous six priorities (Six Priorities) of the president of the Commission to be, Ursula von der Leyen, in 2019 (Von der Leyen, 2019). The Six priorities are conceived based on the multi-stakeholder model expecting to rediscover the European unity and inner strength, so a similar (or at least comparable) and active engagement of all Europeans, including individual customers, is expected (MacGregor Pelikánová, 2024). Policies and strategies reflecting these Six Priorities were issued promptly and, already on 11th December 2019, the new European Commission, under the presidency of Ursula von der Leyen, brought out the first of them, COM (2019) 640 final The European Green (EGD), which perceives the "commitment to tackling climate and environmental-related challenges as this generation's defining task." The EGD determination to transform the EU's economy and society while putting them on a more sustainable path moves the EU's meta-discourse from a negligence of environmental sustainability (2000 Lisbon Strategy) over to the idea that sustainability as an attribute to growth can support a 'jobs and growth' agenda (Europe 2020) to center-stage (Schunz, 2022).

Promptly after the EGD, other policies and even law instruments advancing the Six Priorities followed (MacGregor Pelikánová, 2024), as well as challenging crises, such as the Covid-19 pandemic (Hála *et al.,* 2024) and the war in Ukraine (Malý *et al.,* 2023), shaking the trust, the sustainability readiness and even the values selection (Hála *et al.,* 2022) general attitude to the Six Priorities by many Europeans, but not the European Commission itself (Balcerzak *et al.,* 2024). Following the famous quote assigned to Albert Einstein "…it is crisis that brings progress. It is in

crisis that inventiveness, discovery and great strategy are born", we might be in an era leading to a dramatic reformulation of strategies, in particular those leading to the competitive advantage in compliance with the sustainable policies, see e.g., circularity (D´Adamo & Lupi, 2021). However, EU member states and Europeans themselves appear, so far, remote from a unified pro-sustainability and pro-competitiveness attitude (D´Adamo *et al.,* 2022) and the European Commission is ostensibly pushing for more harmonization, if not directly unification in this arena, see e.g., the non-financial reporting legislative saga (MacGregor Pelikánová & Rubáček, 2022).

By 2024, approximately one half of the initiatives reflecting these Six priorities have been adopted, while the biggest bulk of planned initiatives belong to the 1st priority, EGD (167), the 3rd priority, an economy that works for people (141) and the 2nd priority, Europe fit for the digital age (114) (EPRS, 2024). Unsurprisingly, the drive to effectively and efficiently support the protection of European inventions via patents and the implementation of resulting innovations, in particular open innovations (Šlapáková Losová & Dvouletý, 2024), to make the EU more sustainable and competitive are covered by several of these initiatives and extend to several, if not all, of these Six priorities. At the same time, it is clear that many inventions have a problematic usefulness and do not support sustainability and competitiveness, as a matter of fact they can be counter-productive, see e.g., inventions and innovations regarding electric vehicles. They are able to achieve a sustainable transition only if they use renewable sources, local industrial development of the sector, and battery recycling, otherwise this leads to social and perhaps even environmental and economic unsustainability (D´Adamo *et al.,* 2022). It is not about any inventions and any patents, but about an effective, efficient, legitimate and pro-sustainability and pro-competitive system which works!

The desire to enhance the patent system in Europe by creating a single community patent goes back to the European Commission of José Barroso and the signature of the Lisbon Treaty in 2007. Plan A, wanting to launch the singly community patent system based on regular Regulations, failed, due to massive objections to the language mechanism (only English, French and German) in 2010 and the opinion of the CJ EU that the proposed Agreement creating the European and Community Patent Court would be incompatible with the EU law in 2011 (MacGregor Pelikánová & Beneš, 2023). In 2015, the compromise, via plan B, was launched by presenting a three pillars structure of the European Unitary Patent System (UPS) which was signed by 24 states of which, as of today, 17 have ratified it. Three EU member states have not signed it and cannot ratify it (Croatia, Poland, Spain) and seven have signed but not (yet) ratified (Cyprus, Czech Republic, Greece, Hungary, Ireland, Romania, Slovakia).

The Unitary Patent is based on a European Patent which is granted by the European Patent Organization (EPO) located in Munich under the rules and procedures of the European Patent Convention (EPC) which was signed in 1973 in Munich and has 39 member states (27 EU member states and 12 other states). The EPC with the EPO allows a regional pathway leading to a bundle of national patents similar to the Patent Cooperation Treaty (PCT) which was signed in 1970 in Washington and has 157 members states. The PCT is linked to the Paris Convention signed in 1883 and the system is administrated by the World Intellectual Property Organization (WIPO) in Geneva, while the EPC is linked to the Council of Europe (not EU!) and the EPO. The UPS with the Unitary Patent is an option offered under the auspices of the EPC-EPO since June 2023. The EU, in particular the European Commission, was and remains convinced that the UPS with the Unitary Patent will reduce both complexity and costs and ultimately help inventors and innovators in their pro-sustainability, pro-digitalization and pro-competitiveness endeavors. In sum, the EPS and Unitary Patent should be an intersection flagship initiative boosting almost all, if not all, of the Six priorities.

Well, the one-year long experience and data regarding the UPS allows one to at least preliminarily appreciate whether it has the potential to turn into a legitimate, effective and efficient mechanism to achieve sustainability and competitiveness in a win-win manner. In particular, the data about its regime and one year operation should allow for assessing whether the Unitary Patent is such as an excellent pro-sustainability and pro-competitiveness instrument in the hands of Europeans as

suggested by the EU, in particular the European Commission. In order to do so in an academically robust manner, the heterogenous data is to be methodologically processed (II.) while meticulously appreciating the strategic and legal framework of the UPS (III.), in particular its legal sources and its strategic goals. The resulting assessment is to be done while taking advantage of the juxtaposition of a set of case studies focussing on various jurisdictions and industries and while constantly referring to the fundamental Six Priorities (IV.). The overview of the applicable regime and processed data about its one-year operation brings definitely not a black-and-white picture, instead a set of rather colourful propositions make the conclusions rather surprising (V.). More than expected, the EU appears more diversified and different, and so do the perceptions, impacts and consequences of the application of the UPS. The Unitary Patent can be a very good instrument, but as well as bad, and even in some hands an ugly tool destroying European sustainability and competitiveness.

II. Data and Method

The research aim is to take advantage of the one-year experience and data regarding the UPS and appreciate whether it has the potential to turn into a legitimate, effective and efficient mechanism to achieve sustainability and competitiveness in a win-win manner. The research aim implies two goals and accordingly is the methodology design set (Yin, 2008). Firstly, to identify and interpret the key sources and parameters of the UPS as ultimately approved and launched in the light of the Six Priorities, in particular the demand for European sustainability and competitiveness (G1). Secondly, to research and process the data about the UPS operation, in particular the number of Unitary Patents and their provenience, while observing possible legal, cultural and financial co-relations (G2). The critical comparison and juxtaposition based on the results generated by G1 and G2 allows for the achievement of the research aim in the form of the detailed and colourful snapshot of the UPS on its 1st anniversary in the light of the Six Priorities, in particular the sustainability and competitiveness.

Regarding G1, the search is to be done while using conventional general sources about EU law, i.e., the law database EurLex and additional law information provided via the Internet domain of the European Commission, and particular and topic specific sources about the patents regime, i.e. data provided by the Internet domain of the EPO and related parties. The yielded data are predominantly outcomes of EU legislative endeavours and so their teleological interpretation is to be to done while appreciating the inherent law and legal reasoning semantics particularities (Stamper, 1991) and in the context of the open-minded and interrogative content analysis (Krippendorff, 2003) with the prevalence of qualitative aspects (Kuckartz, 2014). This needs to be done while respecting the particularities of the legal English (Schneiderová, 2018), in which they are expressed, and the underlying leitmotif – the focus on European sustainability and competitiveness (Vourvachis & Woodward, 2015).

Regarding G2, the search is to be done while using conventional general sources of official high quality EU data, Eurostat, and particular and topic specific sources about Unitary Patent statistics, i.e. information provided by the Internet domain of the EPO and complementary as well of the European Commission. Specifically, Eurostat is used to get national and sectorial data about Gross domestic expenditures on research and experimental development (GERD) as the sum of financial resources (national and foreign) used for the execution of research and experimental development (R&D) works on the national territory by the public sector (GOVERD + HERD + PNPERD) and by the business enterprise sector (BERD). Such an absolute data about the total R&D investment (GERD) is presented in one thousand million EUR. If the national GERD is fragmented (divided) by the national GDP, it leads to relative, and more for national comparison feasible, data, i.e. the relation GERD: GDP = R&D intensity to be expressed in %. These values are to be connected to the number of applications and granted patents by the EPO. Further, the EPO is used to get data about patent renewal fees and all applications and granted patents, including Unitary Patents. A simple visualization and correlation is to be done based on the dynamics of the amount of renewal fees for different patent types and years and based on the GERD and number of patents. However, it needs to be borne in mind, that there is a myriad of IP assets and IP Rights and that for the same outcomes of the human mind several IP

regimes are available, e.g., many ideas are kept as trade secrets and not as inventions to be patented (Crass *et al.*, 2019). Further, there are national, regional, and international patents to be achieved via different routes and mechanisms (e.g. WIPO with PCT v EPO with EPC), so the correct data from the EPO about EPO patents are only indicative and definitely not conclusive about the quantity or quality of the particular IP portfolio. Consequently, each methodology using EPO data about patents brings data of which an interpretation needs to be done in a very cautious, comparative and contextual manner. Despite these reservations, data from the EPO along with the data from Eurostat are worthy of exploration and this especially since they are fresh, i.e. available about the year 2022.

The critical comparison and juxtaposition based on the results generated by G1 and G2 is to be done holistically and in an open-minded manner allowing fresh glossing and Socratic questioning (Areeda, 1996). The generated snapshot of the UPS on its 1st anniversary in the light of the Six Priorities has to take advantage of the interaction of the offered qualitative and quantitative data and of visualization. The ultimate propositions cannot be conclusive considering the short time of the UPS application, but still have a valuable suggestive input worthy of further exploration.

III. Strategic, legal and financial framework of the UPS

The identification, description, and analysis of the current UPS and its work must organically start with the applicable underlying strategy. The UPS preparation and launching has a decades-long and agitated history with a number of legislative turbulences, which has been discussed in other papers (Kaesling, 2013; MacGregor Pelikánová & Beneš, 2023). The engagement with the development towards the UPS is beyond the scope of this paper, i.e. let´s focus only on the applicable strategic framework for the current legal framework which is valid and applicable. The backbone of such a framework are the Six Priorities for the EU "that strives for more" and entails the following ambitions:

- P1: The European Green Deal (EGD)….;
- P2: A Europe fit for the digital age to empower people with a new generation of technologies;
- P3: An economy that works for people to create a more attractive investment environment…;
- P4: A stronger Europe in the world to champion multilateralism and a rules-based global …;
- P5: Protecting / Promoting our European way of life by upholding fundamental rights and the rule of law as a bastion of equality, tolerance and social fairness.
- P6: A new push for European democracy by strengthening Europe's democratic processes ...

The Six Priorities are the key strategic agenda determining not only the legislation but as well the interpretation and application, i.e., the UPS setting needs to be appreciated and understood in the light of the Six Priorities. The UPS setting is hybrid and heterogenous because its key institution, the EPO, is not an EU institution, and so the UPS sources belong only partially to the EU law. Namely, the EPO is a separate intergovernmental institution set by and working based on the EPC and its principal role is to examine and grant, or more accurately to assist to get, European patents for the 39 EPC Contracting States, which includes all the EU Member States. Similar to the WIPO with PCT, this saves inventors the costs of parallel patent applications at several national patent offices and, at the same time, ensures a high quality of granted patents. Nevertheless, the resulting European patent is not a regional multi-jurisdiction patent, instead it is rather a centrally obtained voucher to get national patents in selected EPC Contracting States. The granted European Patent is not a unitary right but instead a bundle of national patents, meaning it has to be validated and maintained individually in each country in which it is to take effect, i.e., once the European patent is achieved, it needs to be "validated" for each selected state and in each of them renewed and managed. The Unitary Patent should be simpler and provide a broader patent protection at a lower cost, i.e., in up to 17 EU member states the patent protection should be easier and cheaper to be obtained and kept. This is to be achieved via the continuation of the centralized pre-grant EPO procedure and by the centralized post-grant procedure, i.e., instead of a number of validations and renewals in different EU member

states, the Unitary Patent is to be granted and enforced by the Unified Patent Court (UPC). Consequently, the sustainability and greening of the economy (P1) in the digital setting (P2) should be boosted and should profit all Europeans (P3) by making Europe stronger (P4) and supporting European values reflecting responsibility, creativity and private ownership (P5) and democracy (P6). Plainly, the UPS structure appears *prima facia* in total compliance with the Six Priorities and perhaps even as a model of win-win regarding modern European integration and its effectiveness, efficiency and legitimacy. However, the complex legislative history and especially the resulting legal framework of the UPS suggests that things might be much more complicated.

Based on the decision of the Council of Ministers of the EU 2011/67/EU allowing enhanced cooperation, made after having heard the European Parliament, in March 2011, EU member states are authorized to implement "enhanced co-operation" in the area of Unitary Patent protection under Article 20 of the Treaty on the European Union. Such an authorization paved the venue to the UPS which was launched in 2023 based on three fundamental and heterogenous law instruments and this trio remains valid while only minor amendments are expected in the near future. Namely a majority of EU member states took advantage of this authorization and they are subject to the following trio establishing the UPS, which is not about to undergo dramatic changes in the near future: the Regulation (EU) No 1257/2012 of the European Parliament and of the Council of 17 December 2012 implementing enhanced cooperation in the area of the creation of unitary patent protection [2012] OJ L 361, 1–8 (Regulation 1257/2012), Council Regulation (EU) No 1260/2012 of 17 December 2012, implementing enhanced cooperation in the area of the creation of unitary patent protection with regard to the applicable translation arrangements [2012] OJ L 361, 89-92 (Regulation 1260/2012), and the Agreement on a Unified Patent Court of 19 February 2013 [2013] C 175/01 (Agreement on UPC). Table 1 provides an overview of key elements and aspects of this UPS trio.

Table 1 The fundamental legal framework of the UPS (fully applicable to 17 EU member states)

Law Instrument	Description	Important features and provisions	
Decision 2011/167/EU	authorizing enhanced cooperation between all 25 except Croatia, Italy, Spain	IT came	UK and Poland left
Regulation 1257/2012 (18 articles)	establishes a unitary European patent with a unitary effect, unitary character, uniform protection and equal effect in all of the participating Member States, ….Values	Art. 3	Unitary patent may only be limited, transferred or revoked, or lapse, in respect of all the participating EU member states.
Regulation 1260/2012 (7 articles)	implementing enhanced cooperation in the area of the creation of unitary patent protection with regard to the applicable translation arrangements ….	Art. 2 Art. 3	the language of the proceedings for the Unitary Patent is the language used in the proceedings before the EPO (English, German, French) and no further translations are required (Art. 3 Regulation 1260/2012)
Agreement on UPC 2013 (89 articles, 2 Annexes)	provides for a UPC for the settlement of disputes relating to Unitary Patents	Art. 6 Art. 15 Art. 20 Art. 21 Art. 24	The UPC comprises a Court of First Instance, a Court of Appeal and a Registry and they are populated by both legally qualified judges and technically qualified judges. The UPS shall apply the EU law and respect its primacy and the decisions of the CJ EU. The substantive law applied by the UPC includes EU law), the EPC, other international agreements (Art. 24 Agreement on UPC). As mentioned above, so far 17 EU member states have signed and ratified the Agreement on UPC.

Source: Own processing by the Authors (2024)

It needs to be emphasized that the UPS, in particular Regulation 1257/2012, does not replace the EPC and EPO´s system, but instead the UPS uses the existing structures of the EPO (Art. 9(1) 1257/2012) and co-exists, i.e. Regulation 1257/2012 is a special agreement (Art. 142 EPC) (MacGregor Pelikánová & Beneš, 2023). Further, Regulation 1257/2012 and Regulation 1260/2012 are internal sources of the EU law, which are complemented by delegated implementing legislation. The applicability of both Regulations depends upon the entry into force of the last instrument from the trio, i.e. pursuant to Art. 18 of Regulation 1257/2012 and Art. 7 of Regulation 1260/2012, the applicability of these Regulations depends on the entry into force of the Agreement on UPC.

The Agreement on UPC is a rather long treaty establishing a Byzantine court structure to address disputes regarding Unitary Patents. The UPC is an international court set up by participating EU Member States to deal with the infringement and validity of both Unitary Patents and European patents. This means a move from parallel patent enforcement strategies to a one-shot. Arguably this means putting an end to costly parallel litigation and enhancing legal certainty. However, the unified one shot might prove to be an explosive and dangerous feature, especially considering the UPC structure. Currently, the Agreement on UPC is signed by 24 EU member states (all except Croatia, Poland, Spain) and is ratified by 17 EU members states, i.e. not yet ratified by 7 EU member states (Cyprus, Czech Republic, Greece, Hungary, Ireland, Romania, Slovakia). To put it differently, the UPS with the Unitary Patent covers the following 17 EU member states: Austria, Belgium, Bulgaria, Denmark, Estonia, Finland, France, Germany, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Slovenia, and Sweden, but the other 7 might move to a ratification at any time.

To maintain a Unitary Patent, one annual payment of renewal fees in EUR is to be done to the EPO in the amount set to be not higher than what would be the combined annual payment for the renewal of national patents in the four most popular countries for the validation of the conventional European Patent (Germany, France, Italy and Netherlands). Especially for the first years, the renewal fees are rather low and the total cost for a Unitary Patent for the first decade, the typical time during which patents are maintained, is under EUR 5 000. In addition, the central payment for the annual renewal saves the transaction, representation, management and translation costs. Table 2 presents the data about the amount of annual renewal fees for the Unitary patent, for national patents in all 17 EU members states engaged in the UPS and for national patents in all 24 EU member states engaged in the enhanced co-operation (all EU member states except Croatia, Poland, Spain).

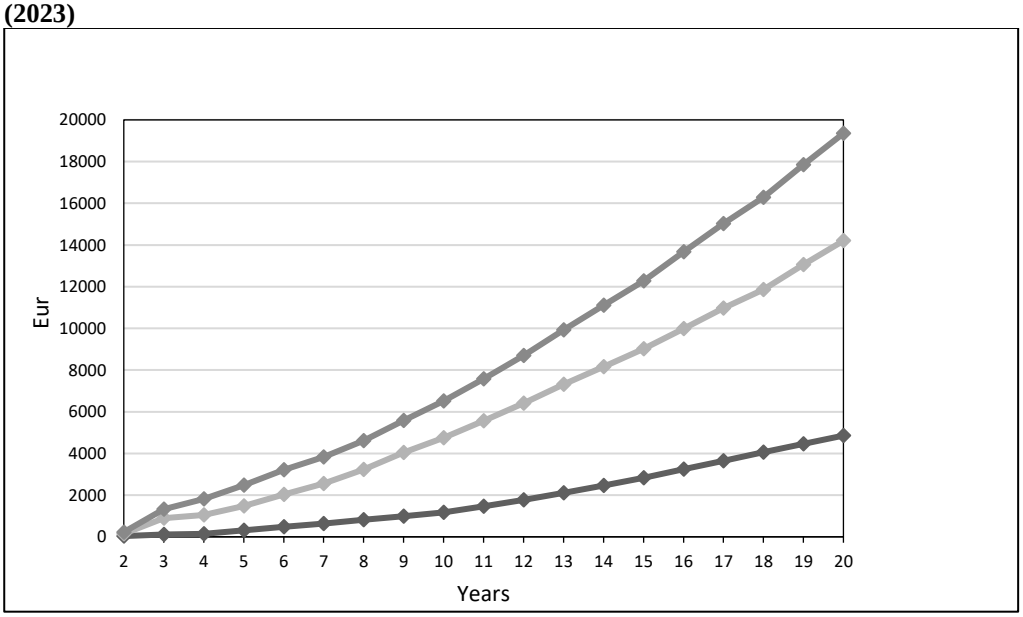
Table 2 Annual renewal fees in EUR for the Unitary patent and national patents as set in 2023

Year	Unitary Patent	17 EU member states in UPS	24 EU member states in enhanced co-operation
2	35	146	223
3	105	899	1321
4	145	1049	1815
5	315	1483	2470
6	475	2024	3207
7	630	2554	3830
8	815	3221	4607
9	990	4036	5584
10	1175	4756	6518
…	…	…	…
20	4855	14202	19353
Total for all 20 Yr	35555	116688	161305

Source: Own processing by the Authors (2024) based on https://www.epo.org/en/applying/european/unitary/unitary-patent/cost

Figure 1 provides visualization and reveals that, clearly the renewal fees for the Unitary patent are for each and every year significantly lower than the combined renewal fees for national patents in the mentioned 17 or 24 EU member states.

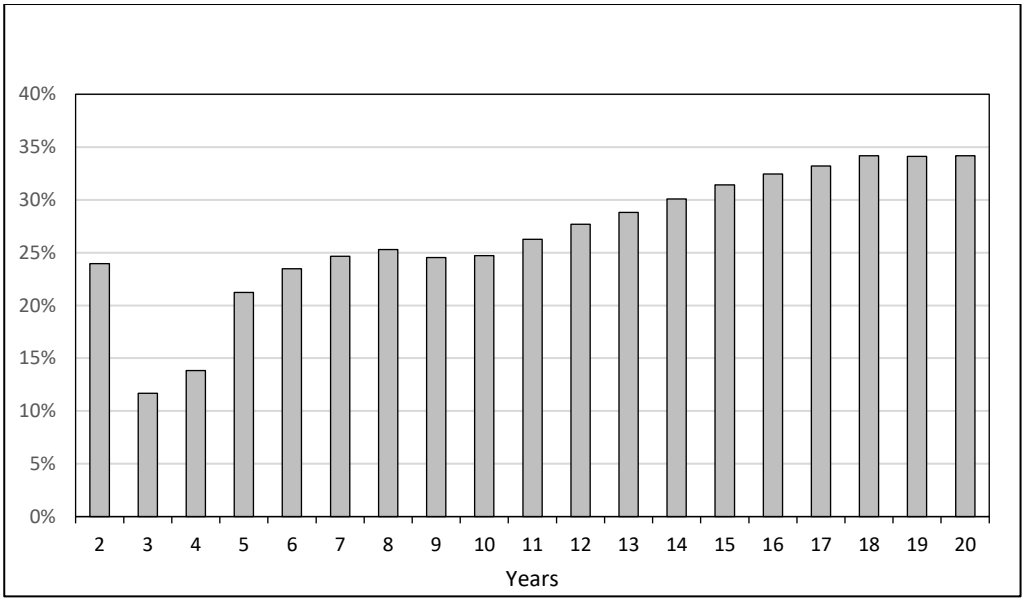
Figure 1 Annual renewal fees in EUR for the Unitary patent, national patents for 17 and 27 EU member states (2023)



Source: Own processing by the Authors (2024) based on https://www.epo.org/en/applying/european/unitary/unitary-patent/cost.

Figure 2 reveals that the dynamics of the growth of the annual renewal fees for the Unitary patent and national patents in the UPS states, i.e., 17 EU member states, and points out that the largest savings are to be achieved during the first years. The difference between the annual renewal fee for the Unitary Patent and combined annual renewal fees for all 17 national patents is the largest for the 3rd, 4th and 5th years and is getting progressively reduced by passing the savings threshold in the 10th year.

Figure 2 Proportion of annual renewal fees for the Unitary patent to the combined annual renewal fees in 17 EU member states



Source: Own processing by the Authors (2024) based on https://www.epo.org/en/applying/european/unitary/unitary-patent/cost

Well, on paper the Unitary Patent looks attractive, especially during the first decade of its validity, but what is the reality about the real daily operation of the UPS?

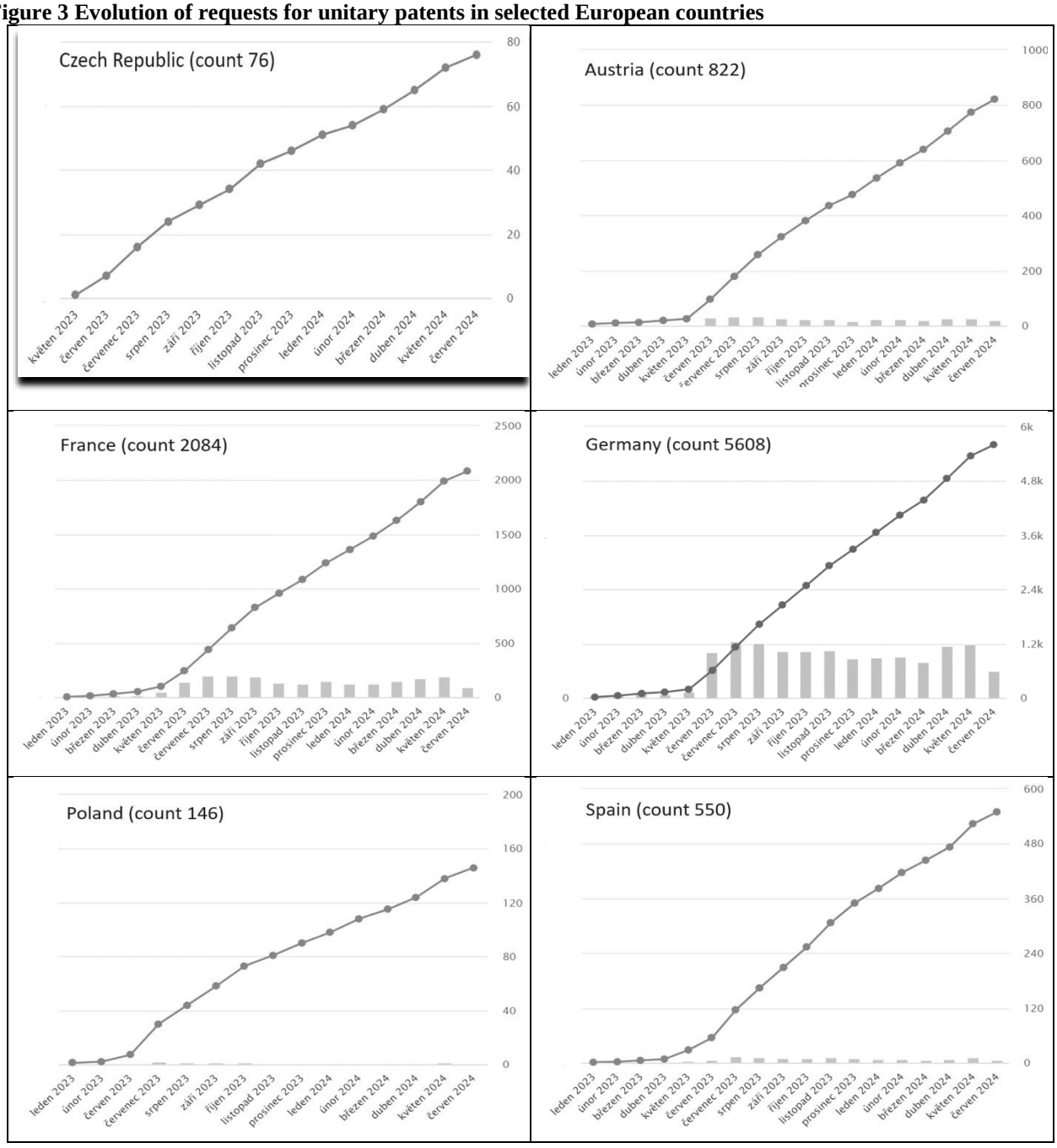
IV. Assessment of the operation of the UPS – Juxtaposition of case studies

The provided overview of the set UPS regime offers a good foundation to perform and juxtapose case studies. However, it needs to be appreciated that a Unitary Patent is a patent, and so the data from the EPO about it needs to be understood in this light. Plainly, achieving an invention passing the patentability threshold (new, inventive, industrial use, no public reasons against) and going ahead with the patent application based on it is an extremely expensive and risky enterprise with uncertain results. There are only a few certainties, such as that it will demand money and time.

The good Unitary Patent offering a good and prima facia accessible opportunity to all Europeans

Well, it is clear what the EU wants and that all Six Priorities are (or supposed to be) pro-sustainability and pro-competitiveness. The UPS should stimulate and help European inventors to make and protect inventions even if the investment in R&D is behind expectations. Pursuant to EPO statistics about one year of the UPS operation, applicants for European Patents are increasingly interested in the case of a successful application proceeding to turn their European Patent into the Unitary Patent by passing on national validation and this pattern is especially strong in the medical technology and civil engineering sectors (Sandy, 2023). In total, European patent proprietors requested unitary protection in 18,300 cases, i.e., for 17.5% of all European patents granted in 2023, and this ratio is growing, i.e., more and more European Patents proprietors and beneficiaries opt to have “a central and unified patent” for 17 EU member states and litigate and enforce their Unitary Patents before the UPC which, as a supranational court, will support or revoke the Unitary Patent for all 17 EU member states. These proprietors are massively successful, because the EPO approves and grants the Unitary Patent to over 97% of European Patent proprietors asking for it. These patents are largely from the medical technology, civil engineering, transport, ‘other special machines’ and measurement industries (Sandy, 2023). In this perspective, the Unitary Patent looks like a win-win option offering an easily accessible patent instrument for 17 EU member states with a centralized management and enforcement and which is cheaper than to have national patents in 4 out of these 17 jurisdictions. Even SMEs from European jurisdictions with a low R&D investment should be better off. Table 3 shows that the Unitary Patents are getting popular and their number gradually grows for each and every EU member state while the number of monthly applications is basically constant.

Figure 3 Evolution of requests for unitary patents in selected European countries



Source: Own processing by the Authors (2024) based on EPO dashboard (EPO, 2024)

The bad Unitary Patent magnifying differences – Making EU IP winners stronger and EU IP losers weaker

From the very first day, it is clear that European Patents from certain industries filed by a certain size of proprietors are more often turned into Unitary Patents than from others. Regarding industries, it is perfectly understandable, see e.g., the well understandable reluctance to turn pharmaceutical patents in Unitary Patents and risk to lose in one shot (by one lost court proceeding before the UPC) the monopolistic right to commercialize them for the remaining 20 years in all 17 jurisdictions. This fear is not so present in mechanics, electronic, digital or transport industries. Well, these industry and sector particularities are inherent and do not have a strong bearing on assessing and judging the UPS. However, the differences between the size of the proprietors are definitely relevant, so do Europeans SMEs have much of a chance vis-à-vis large enterprises? The short answer is NO. The EPO statistics regarding the Unitary Patents of European proprietors by June 16, 2024 are massively dominated by large enterprises, namely the Unitary Patent European proprietors´ profile is as follow:

- 56.9 % European large enterprises (6 497 Unitary Patents);
- 7.6 % Universities and public research organizations (868 Unitary Patents);
- 35.5 % European SMEs and individual inventors (4 054 Unitary Patents) (EPO, 2024).

And who are these European large enterprises taking the biggest bulk of the Unitary Patents of European proprietors: Siemens AG, Germany (479 Unitary Patents); LM Ericksson AB, Sweden (302 Unitary Patents); Volvo Group, Sweden (267 Unitary Patents); Fraunhofer-Gesellschaft, Germany (168 Unitary Patents); Philip Morris International, Switzerland (161 Unitary Patents); Hoffmann-La Roche LTD, Denmark (147 Unitary Patents); Vestas A/S, Denmark (133 Unitary Patents); Royal Philip, Netherlands (132 Unitary Patents); L´Oreal SA (126 Unitary Patents) (EPO, 2024). Well, this suggests that a significant part of the Unitary Patents of EU proprietors belongs to large companies from Germany, France, Netherland, Sweden and Denmark. Pursuant to the EPO, the EU origin of Unitary Patents proprietors is as follows:

- Germany with 18.8 % of all Unitary Patents (5 548 Unitary Patents);
- France with 6.9 % of all Unitary Patents (2 036 Unitary Patents);
- Italy with 5.3 % of all Unitary Patents (1 572 Unitary Patents) (EPO, 2024).

This confirms the above-mentioned dominance, i.e., Unitary Patents from SMEs from other EU member states do not manage to reverse the massive dominance of large enterprises from just a few EU member states. The harmonization, if not unification, of EU and EU member states with respect to IP via Unitary Patents based on the Six Priorities is an illusion and the old rule of the 3% threshold, along with national clichés about patenting discipline, is confirmed. The Unitary Patent increases differences and the typical Unitary Patent proprietor from the EU is arguably a large German enterprise. This is not bad per se, but definitely this is not the desired effect intended by the EU. From the perspective of the Six Priorities, this is serious and the reality is rather bad. Pursuant to empirical observations and as implied by the framework, jurisdictions with a high competitiveness rely on IP, including patents, and have a high ratio of GERD to GDP (3% and more) and considering the length of the R&D inventive phase and of patent proceedings, the necessary time gap is at least 2 years (MacGregor Pelikánová, 2019). How much do EU member states invest in R&D, and so create a needed basis for inventions leading to Unitary Patents? This question is to be answered based on data about the situation two years ago, i.e., 2022, which shows that the magic 3% ratio of GERD to GDP is not attained by the majority of the EU member states, while it is met by the USA and Japan, see Table 3.

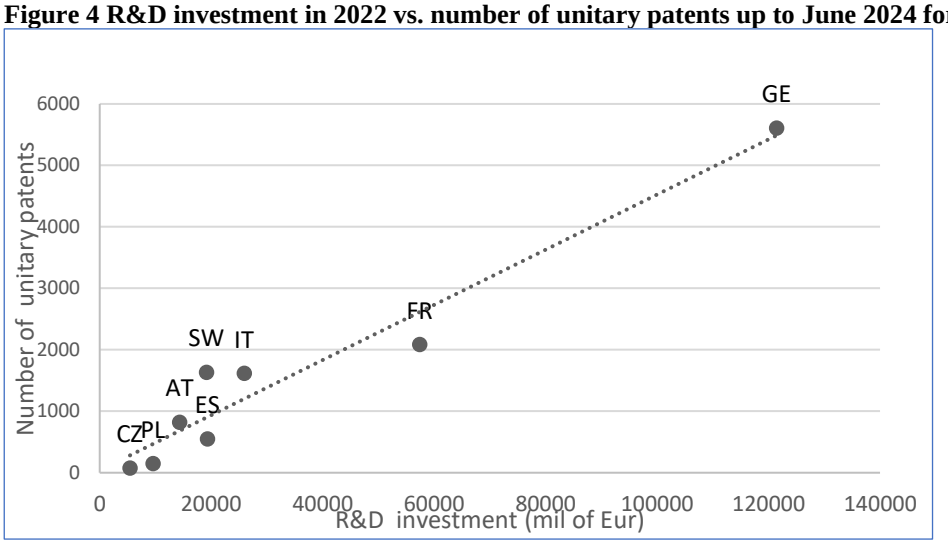
Table 3 R&D invest. in mil. EUR and GERD to GDP (R&D intensity) in % in 2022

2022	EU	CZ	GE	ES	FR	IT	AT	PL	SW	USA	China	JA
mil. EUR	354 672	5 426	121 436	19 325	57 414	25 915	14 313	9 540	19 147			
GERD to GDP	2.24	1.96	3.13	1.44	2.11	1.33	3.20	1.46	3.40	3.46	2.41	3.34

Source: Own processing based on Eurostat, see https://ec.europa.eu/eurostat/statistics-explained/index.php?title=R%26D_expenditure

China invests more in R&D (2.41 %) than the EU (2.24%) and even the majority of UPS states do not pass the 3% threshold. From the top European Patent countries (Germany, France, Italy, Netherlands), which are the backbone of the UPS, only Germany managed to recently pass 3%. The following graph shows a very strong relationship between R&D investment and the number of unitary patents. The correlation coefficient is very close to 1 (its accurate value equals 0.9706). Countries above the trend line (Austria, Switzerland, Italy, and Germany) are able to transform GERD investments into unitary patents more efficiently than the remaining four countries.

Figure 4 R&D investment in 2022 vs. number of unitary patents up to June 2024 for selected EU members



Source: Own processing by the Authors (2024) based on EuroStat GERD and EPO dashboard

Well, and what if the number of patent applications from SMEs from smaller member states is a question of efficiency and effectiveness? What if today's UPS is not simple and users friendly enough? As mentioned above, the price is not a problem. Also, language questions are no longer a serious problem: Translations made by AI software are becoming so professional that soon it might be hard to believe that, at one time the question of translations used to be one of the most serious problems while implementing a UPC legislation. So, what can be the burden? Let's take an example from another IP law topic: The copyright. The copyright law also does not have a unique EU-wide territory, such as the UPC. Thus, every single harmonization of the copyright law at the EU level is single-topic-oriented. So, in the reality, there are large numbers of small harmonizations. And reality shows that, whatever is simple and easy to use, works. For example: State of origin principle, introduced firstly into the Satellite-Cable Directive (Directive 93/83/EEC), very simply extended the license territory from the state of origin onto the whole EU territory. Once the broadcasters in the EU recognized that, it works quite well, it could be brought into the online world: So today, we have the same simple principle for so called "broadcast-like services" (Directive (EU) 2019/789). The license territory is extended simply, without administrative burdens. It works. But let's take another example: The Orphan Works Directive (Directive 2012/28/EU). The goal was to make orphan works accessible for users and digitalize the archives. But the so-called diligent search, registration of orphan works at national levels and also at EUIPO registers and strict conditions, of who and how can use the orphan works, made the system so heavy-handed, that the register of orphan works is more empty than full… What if the patent protection itself is too complicated for SMEs? What if the UPS is not user-friendly? The UPS is not a unitary EU patent, if it is not valid in the whole EU. It is registered by the EPO, a non-EU organization. The Unitary Patent Court is not a EU institution. What if such circumstances result in the SMEs from the EU not recognizing the real goal of the UPS? What if they don't recognize the difference between the UPS and European patent? And what if today's fast coming and fast going startups don´t believe in a 20 years-long period of a monopoly protection given by patent protection? And what if some day an AI software will create an entire patent application?

In sum, the UPS magnifies differences between EU businesses (the large are getting stronger and SMEs weaker), EU member states and generally between jurisdictions able to invest more in R&D. However, something much worse overshadows this by the Six Priorities unwanted differentiation – the massive growth in the number of Unitary Patents in the hands of proprietors from outside the EU which might not be committed to European values and IP protection.

The ugly Unitary Patent in the hands of more and more Barbarians at (and even past) the EU gate

Hannibal ante portas! Considering the national compositions of EPO applicants, led in 2023 by Huawei, numerous questions are emerging about them and the genuity and appropriateness of their applications. These concerns are confirmed by the statistics showing that the majority of proprietors of Unitary Patents are not from the EU member states (Sandy, 2023). The largest number of Unitary patents outside of the EU were from the following jurisdictions:

- The USA with 16.1 % of all Unitary Patents (4 749 Unitary Patents);
- China with 6.1 % of all Unitary Patents (1 756 Unitary Patents);
- Switzerland with 5.5 % of Unitary Patents (1 623 Unitary Patents);
- Japan with 3.8 of all Unitary Patents (1 132 Unitary Patents);
- Korea with 3.3 % of all Unitary Patents (968 Unitary Patents) (EPO, 2024).

This is reflected by the list of the top Unitary Patent proprietors, which is led by Johnson & Johnson from the USA (502 Unitary Patents), followed by Siemens AG from Germany (479 Unitary Patents), Samsung from Korea (382 Unitary Patents), and Qualcomm Inc from the US (377 Unitary Patents).

Therefore, for 2023, in total 17 202 Unitary Patents were registered and as of June 16, 2024 for 2024 in total 11 273 Unitary Patents, i.e., the combined number of all Unitary Patents so far granted is 28 475 and 169 of them are owned by Huawei Technologies from China. The top ten proprietors are Johnson & Johnson, Siemens, Qualcomm, Samsung, Ericsson, Volvo, Becton, Dickinson & Company, Fraunhofer-Gesellschaft and Vestas (Sandy, 2024).

Perhaps the most worrisome is the trend, i.e. the increasing number of applications for Unitary Patents filed by large non-European companies with an often problematic and/or dubious attitude to sustainability and European values. Naturally, statistics about applications for Unitary Patents, by individual companies during less than one year, lead rather to speculative than robust statements. However, the consideration and comparison of the application trends of all proprietors from various jurisdictions is much more relevant and objective, see Table 4.

Table 4 Unitary patent requests by September 17, 2023 compared with June 1, 2024

Country	UP requests as of 2023-9-17 (number)	UP requests as of 2023-9-17 (%)	UP requests as of 2024-6-1 (number)	UP requests as of 2024-6-1 (%)	% change
Germany	1 834	29.49	5 334	28.43	- 1.06
USA	1 327	21.34	4 211	22.45	+ 1.11
France	738	11.87	1 977	10.54	- 1.33
Switzerland	536	8.62	1 549	8.26	- 0.36
China	492	7.91	1 563	8.33	+ 0.42
United Kingdom	410	6.59	1 159	6.18	- 0.41
Japan	319	5.13	1 026	5.47	+ 0.34
Netherlands	343	5.52	1 013	5.40	- 0.12
South Korea	220	3.54	929	4.95	+ 1.41

Source: Authors own processing based on https://www.dyoung.com/en/knowledgebank/articles/upc-1year-unitarypatent-opt-out-stats

Even the data regarding other jurisdictions confirms this trend, i.e., the relative share of all applications for Unitary Patents filed by non-Europeans is increasing, while the relative share of all applications for Unitary Patents filed by Europeans is decreasing (Al-Khalili, 2024). In particular, the drop by France is disappointing, since even the cursory overview of the UPS and its regime appears prima facie pro-France, see the language regime (and the dramatic disappointment of Spain

and even Italy), the UPC setting (court location), etc., and there was a hope that the initial low number of applications for Unitary Patents from France would be corrected over time. If one of the EU´s goals is to be a fully sustainable economic zone, is it really the best way to do it by introducing a patent system (which is anyway not fully unitary) that brings more patents to large owners from non-EU countries, in which is the level of sustainable measures are at a much lower level? The heretical question could be: What about taking a proof of sustainability as a new condition for a UPS application? Well, the answer is simple: Such a condition would be (from today's perspective) clearly against the crucial legal principles of patent protection, as we know it. Patent protection must be technically, technologically (and politically) neutral! So now is the time for another heretical question: Could (and should) be patent protection be sustainable? Is that really one of the criteria? Or is it just a "must have" proclamation?

IV. Conclusion

The dual research aims regarding the assessment of the UPS, based on its static framework and dynamic one year operation, brings a set of heterogenous propositions regarding the expectations of the current EU, in particular the European Commission. Firstly, the study of the framework confirms the potential of the Unitary Patent to become a pro-sustainability and a pro-competitiveness tool of Europeans in compliance with the Six Priorities (G1). Nevertheless, so far, the UPS applies only to 17 EU member states, while there is hope for expanding it to 7 other EU member states, but not at all to the remaining 3 EU member states. Since there is such a fragmentation and the EU on three speeds, then the picture of the Unitary patent on the paper is not in a unified pink color. Secondly, the research and processing of the data about the UPS operation, in particular the number of Unitary Patents and their provenience, and related trends and correlations to investment and proprietor's background, brings a set of concerns (G2). Yes, the Unitary patent is perceived as a good tool and more and more Europeans opt for it, but, at the same time, it is an instrument magnifying differences between EU member states and between large businesses and SMEs and this is definitely not what the Six priorities want, this is bad. However, even worse, it appears that the proportion of non-European proprietors of Unitary Patents is growing and of that of Europeans is shrinking. As much as the growth of monthly applications for Unitary Patents is dropping even in the case of such EU promising states for IP, sustainability and competitiveness, such as Germany and France, and even more is growing the number of applications for Unitary Patents filed by applicants and/or from jurisdictions with at least questionable IP and Six Priorities compliance. Yes, the Unitary patent is the legal title providing uniform patent protection in the majority of EU member states, enjoying the one-stop-shop administration, the unified enforcement by the UPC and price and burden reduction compared to a bigger bulk of national patents. Yes, the Unitary Patent can be a pro-sustainability and pro-competitiveness instrument … but, at the same time, it is a double-edged sword and, in the hands of some, can be very contra-productive, i.e., an ugly tool destroying European IP, competitiveness and even sustainability drives.

Acknowledgements

This paper is the result of Metropolitan University Prague research project no. 110-2 "Economic studies, International Business and Financial Management" (2024) based on a grant from the Institutional Fund for the Long-term Strategic Development of Research Organizations.

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