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PATENT POOLS IN LIGHT OF EUROPEAN UNION COMPETITION LAW

SUMMARY

The functioning of patent pools leads to specific benefits in the transfer of technologies, and it accelerates technological advancement and provides easy access to technologies. Therefore, one could expect that the European Union (EU) – an organization which attempts to gain competitive advantage of its economy on the basis of knowledge and technology – should support patent pools. However, due to the possibility of anti-competitive practices, the functioning of patent pools is subject to EU legislation and competition laws. In this context patent pools pose a challenge in the area of reconciling the process of supporting technological advancement with the protection of fair competition.

The paper presents an analysis of EU regulations in the area of patent pools. The author assesses the pro- and anti-competitive effects of activities carried out by patent pools. The further part of the paper discusses an evolution of the EU's approach to such organizations, presenting specific patent pool laws in the context of technology transfer agreements. Finally, the author presents some specific problems and future changes related to EU competition laws with respect to patent pools.

Keywords: legal patent pools, EU antitrust, technology transfer agreements

JEL Classification: K21, L24

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INTRODUCTION

A patent pool is an arrangement between at least two entities, the owners of patents, for the mutual granting of licences to use these patents¹. The functioning of patent pools, then, consists in transferring intellectual property rights directly from patent owners to licencees (pursuant to ordinary agreements), or indirectly through special entities, e.g. joint ventures, which administer pools and make use of cartelised technologies². Also, patent pools can make their licences available to third parties for a fee. Pools as agreements between companies are subject to EU competition law because of their possible adverse impact on competition practices on the EU market.

The paper aims to identify the implications of European Union competition law for the functioning of patent pools in the context of the evolution of EU competition law and policy. Also, the author discusses changes in the European Commission's attitude to the issue of patent pools.

1. PATENT POOLS – THE EFFECTS OF THEIR FUNCTIONING

Patent pools were established as early as in the middle of the 19th century, and they have developed rapidly in the last two decades, especially in technologically advanced industries. The first modern patent pool is MPEG-2; it was established in 1997, and it makes use of the technologies of 30 licensors in the area of video and audio coding³. DVD, the second patent pool, was established one year later⁴. Currently, several dozen patent pools are operating worldwide, including the best known standards: Wi-Fi, 3G mobile systems or blue-ray.

It should be noted that establishing a patent pool is a long-term and multi-phase process. A variety of problems to be solved and the specific objectives and interests represented by pool members necessitate analyses and

¹ J. Lerner, J. Tirole, *Efficient patent pools*, NBER Working Paper, No 9175/2002, p. 3.

² J. Clark, B. Stanton, K. Tyson, *Patent pools: a solution to the problem of access in biotechnology patents?*, USPTO, Alexandria 2000, p. 5.

³ K. Vakili, *Competitive Effects of Modern Patent Pools: The Effect of the MPEG-2 Pool on Incumbents? Innovative Performance*, http://druid8.sit.aau.dk/acc_papers/pbhtg3gypuic3mrtbgp95bqm6ond.pdf, p. 5-6, 27, (10.09.2013).

⁴ R.J. Gilbert, *Antitrust for Patent Pools: A Century of Policy Evolution*, „Stanford Technology Law Review”, No. 3/2004, http://stlr.stanford.edu/STLR/Articles/04_STLR_3, p. 1-3, (10.09.2013).

professional advice in the area of patent laws, intellectual property, competition laws as well as technical issues. Moreover, to make a pool a viable economic undertaking, it is necessary to identify the owners of necessary technologies and encourage them to enter into agreements with a view to creating full patent packages⁵.

Patent pools aim to create complementary or substitute technological packages. The analyses of pools indicate that the most effective are those which make use of complementary technological packages. However, there is no clear-cut distinction between complementary and substitute technologies, and two technologies may be complementary accompanied by low licence fees, while the same two technologies can be substitute by high fees⁶.

Benefits derived from the functioning of patent pools are obvious and they are reflected in technological advancement and technology transfers⁷. In the first place, pool members gain access to various patents which stimulate innovation and can be effectively commercialized. Moreover, they are given the possibility of finding common solutions to problems and entering into technological cooperation. Also, they benefit from the economies of scale, which is not always possible in the case of individual undertakings. In addition to that, patent pools can merge technological resources owned by different market participants, which leads to synergy effects and more efficient intellectual property management. Patent pools can also benefit from increased competition resulting from the integration of complementary technologies.

It should be stressed that third parties also benefit from patent pools by gaining access to inexpensive knowledge through the purchase of patent packages, and, even more importantly, by a quick commercialisation of the purchased technologies as well as lower transaction costs. A purchasing party concludes one transaction with a patent pool, avoiding negotiations with a number of patent owners. In addition to that, patent pools allow for eliminating so called patent tickets (the situation when specific patents are owned by a number of entities, making it difficult for a firm to gain access to a given production technology).

Another benefit results from eliminating the costs of possible conflicts between the owners of patents which constitute the resources of a given patent pool. Law suits in this area tend to be lasting and expensive.

⁵ B.Verbeure, E. van Zimmeren, G. Mtthijs, G. Van Overwalle, *Patent pools and diagnostic testing*, „Trends in Biotechnology”, Vol. 24, No. 3/2006, p. 116-117.

⁶ J. Lerner, J. Tirole, *op. cit.*, p. 6-7.

⁷ R. Sikorski, *Funkcjonowanie zasobów patentowych w prawie konkurencji Unii Europejskiej*, Wydawnictwo C.H. Beck, Warszawa 2013, p. 22-33.

However, the functioning of patent pools can have negative effects⁸. The accumulation of technologies within one pool strengthens its position on given technology's market and pool can become a dominant market player. This situation frequently leads to the abuse of market dominance through anti-competitive behaviors. As a result, the risk arises of monopolising the market, which can ultimately result in blocking access to the market for entities outside the patent pool. Anti-competitive activities are more frequent in the case of the pools which are excessively closed and which make use of competing technologies. Pool activities are then contradictory to competition principles in two ways. Firstly, a pool can interfere with the relations between its members with regard to intellectual property, which can have an extremely adverse effect when a pool member introduces a new business model aimed to compete with the pool's clients. Secondly, a pool can strengthen its market position through a supply chain, charging multiple fees for its technologies⁹.

Paradoxically, patent pool activities can hinder technological advancement and innovation. It refers to the situation in which a pool prevents the sale of patents, blocking access to a given technology. Risk is even greater when a patent pool has an overall control of substitute technologies. Another problem arises when a pool prevents the development of technologies by purchasing exclusive patent rights and by the "freezing of patent" so that substitute technological solutions cannot be applied¹⁰. A patent pool can also impose various restrictions on the buyers of technologies including a ban on developing new technologies based on the purchased patents.

2. EU COMPETITION LAW VS PATENT POOLS

EU competition law ban agreements between firms which aim to reduce or eliminate competition on the common market or parts thereof. This question is regulated by Art. 101 of the Treaty on the Functioning of the European Union (TFEU)¹¹, which provides legal grounds for the European Commission's Directorate-General for Competition to ban, eliminate and punish

⁸ *Ibidem*, p. 34-44.

⁹ H. Ullrich, *Patent pools: Approaching a patent law problem via competition policy*, European University Institute, Florence 2005, p. 4-6.

¹⁰ J. Lerner, M. Strojwas, J. Tirole, *The Design of Patent Pools: The Determinants of Licensing Rules*, „RAND Journal of Economics”, Vol. 38, No. 3/2007, p. 610-625.

¹¹ European Union, *Consolidated Versions of the Treaty on European Union and the Treaty on the Functioning of the European Union*, OJ C 83/01 Vol./2010, s. 47-388.

enterprises which establish cartels¹². Patent pools as agreements between firms are subjected to EU competition law pursuant to Art. 101 of TFEU.

However, Art. 101 provides for the possibility of declaring the banning regulations inapplicable, i.e. recognising a given agreement as complying with EU competition law, if an agreement contributes to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit (Art. 101(3) TFEU). Art. 101 (3) of TFEU can be applicable after notifying the European Commission of the intention to enter into an agreement. The Commission can grant or decide not to grant an exemption to Art. 101.

Agreements on technology transfer, which also include patent pools, are subjected to the assessments of the Directorate-General for Competition pursuant to Art. 101 of TFEU, which also applies to all other agreements between enterprises. EU competition policy have evolved in the area of exercising control over agreements on technology transfer in the belief that such agreements may be beneficial for the European economy as the factors which stimulate technological progress, disseminate new technologies and lead to possible synergies. The first block exemption was created in 1965, applying to a specific category of licence agreements¹³. The 1996 regulations concerned patent, know-how and mixed agreements, and they provided for new possibilities of applying block exemptions without giving consideration to the fact that licensors had to apply specific clauses to effectively protect their intellectual property¹⁴.

Breakthrough changes in EU competition regulations with respect to technology transfer agreements were introduced by the Modernisation of EU Competition Law in 2004¹⁵. New block exemptions to technology transfer agreements applied formal procedures only in the case of agreements between businesses with considerable market power¹⁶. Legal regulations relat-

¹² It should be noted that competition laws were included in the Treaty of Rome in 1957. The wording of Art. 101 remains unchanged, and the only change is in article number (Art. 85 in the Treaty of Rome, Art. 81 – in the Treaty of Amsterdam).

¹³ *Rozporządzenie Rady nr 19/65/EWG w sprawie stosowania art. 85, ust. 3 do pewnych kategorii porozumień i praktyk uzgodnionych*, DUWE 36/533, 6.03.1965.

¹⁴ *Rozporządzenie Komisji nr 240/96 w sprawie stosowania art. 85, ust. 3 Traktatu do niektórych kategorii porozumień o transferze technologii*, OJ L 031, 9.02.1996.

¹⁵ P. Craig, G. de Burca, *The Evolution of EU Law*, Oxford University Press, New York 2011, p. 717-720.

¹⁶ *Rozporządzenie Komisji nr 772/2004 w sprawie stosowania art. 81, ust. 3 Traktatu do kategorii porozumień o transferze technologii*, OJ L 123/11, 27.04.2004; European Commission, *Guidelines on the Application of Article 81 of the EC Treaty to Technology Transfer Agreements*, OJ C 101/2004.

ed to Technology Transfer Block Exemptions (TTBER) differentiate between agreements of competitors and non-competitors in the belief that the former category poses a greater threat to fair competition¹⁷.

Apart from the fact that patent pools are technology transfer agreements, they do not benefit from TTBER regulations. TTBER block exemptions cover only bilateral agreements, while patent pools represent multilateral arrangements. Another barrier to the application of TTBER is the fact that in the case of patent pools the granting of licences does not involve the manufacture of goods, which is one of the conditions to be met to benefit from block exemptions¹⁸. Consequently, patent pools are not treated as licence agreements concluded between companies¹⁹.

3. THE LEGAL PATENT POOL

It should be stressed that the EU's attitude to technology transfer agreements has undergone considerable changes, offering a number of benefits for patent pools. The Commission believes that the owners of intellectual property have exclusive rights to dispose of it or protect it against unlawful use. It is also believed that technology transfer agreements increase economic effectiveness and competitiveness, promoting the process of technology diffusion. In 2011, the recommendations to liberalise the subsequent provisions of technology transfer agreements gave rise to public consultations aimed to introduce changes to the regulations in force. New competition laws in the area of technology transfer agreements were proposed in the early 2013, and according to the Commission's declarations they are to become effective in April 2014 at the latest²⁰.

The current EU competition laws accept patent pools which are open to other members and allow third party membership. Simultaneously, pools are not allowed to prevent their members from granting licences to non-members.

¹⁷ A. Odrobina, *Wspólnotowa polityka konkurencji wobec kwestii transferu technologii*, [in:] E. Molendowski (ed.), *Globalizacja i regionalizacja we współczesnym świecie*, Uniwersytet Ekonomiczny w Krakowie, Kraków 2012, p. 463-471.

¹⁸ R. Sikorski, *Zwolnienia grupowe umów transferu technologii we wspólnotowym prawie konkurencji*, [in:] C. Banasiński (ed.), *Aktualne problemy polskiego i europejskiego prawa ochrony konkurencji*, UOKiK, Warszawa 2006, p. 93-95.

¹⁹ H. Ullrich, *op. cit.*, p. 3.

²⁰ Komisja Europejska, *Wytuczne w sprawie stosowania art. 101 Traktatu o funkcjonowaniu Unii Europejskiej do porozumień o transferze technologii*, Projekt Komunikat Komisji, Bruksela 2013, C(2013)924.

The European Commission's practice indicates that pool agreements do not infringe on competition laws if their activities are confined to standard patent packages, pool members can freely grant licences for the use of their own patents to non-members, and pools do not have exclusive licence rights, thus enabling their members to develop alternative technologies outside the pool's structure²¹. Regardless of being a formal or informal organization, a pool should allow its licencees to carry out independent market activities on the basis of other licences²².

Moreover, the Commission recognises a pool to be pro-competitive when it applies exclusively complementary technologies and patents – the technologies which are essential in the manufacture of a given product²³. The term “essential technology” refers to a technology which is indispensable in manufacturing a given product as well a technology which creates a standard.

Another issue concerns agreements between pools and third parties. Pursuant to EU competition law, such agreements cannot benefit from the TTBER, although they represent bilateral agreements between a pool and a company²⁴.

One of the significant questions related to the legal functioning of patent pools is the existence of clauses which allow pool members to grant licences for the use of their own patents to non-members pursuant to separate agreements and in compliance with intellectual property rights²⁵. The necessity of including such clauses in pool agreements is frequently treated as an indication of the pool's stability and utility. It also ensures that the established pools are socially accepted and pro-competitive²⁶.

Even if patent pools pursue anti-competitive objectives, they can still be recognised as legal. Under such circumstances the Commission analyses anti- and pro-competitive effects resulting from the pool's functioning. If pro-com-

²¹ P. Regibeau, K. Rockett, *Assessment of potential anticompetitive conduct in the field of intellectual property rights and assessment of the interplay between competition policy and IPR protection*, European Union, Luxembourg 2011, p. 21-22.

²² European Commission, *Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements*, European Union, Brussels 2013, p. 63-65.

²³ If technologies X and Y are indispensable in the manufacture of product A, technologies X and Y are complementary and essential.

²⁴ European Commission, *Commission consults on proposal for revised competition regime for technology transfer agreements*, „Memo” 13/120, Brussels 2013, p. 4.

²⁵ H. Ullrich, *op. cit.*, p. 6-8.

²⁶ P. Regibeau, K. Rockett, *op. cit.*, p. 23-24.

petitive effects are greater than those which hinder competition, a pool may be granted the European Commission's exemption²⁷.

4. The limits of eu competition policy

Apart from changes in the European Commission's attitudes to patent pools, a number of problems related to competition policy remain unsolved. One of the issues is a type of patents belonging to a pool. The question is whether a pool is allowed to dispose of other than complementary and essential patents, being still regarded by the Commission to be pro-competitive.

Another controversy relates to pools' internal management in the area of licence fees²⁸. Research studies indicate that patent pools frequently protect the interests of patent owners, who impose their own terms for the sales of their intellectual property rights. The results of research even suggest that approx. 90% of patent pools confine their activities to offering access to the entire packages of patents. Therefore, it can be concluded that pools which offer complementary packages are more effective economically, and they are in a position to offer lower prices for the purchase of the whole package as compared with the cases in which complementary packages are subject to separate negotiations. Nevertheless, pools whose members provide only patents (pure researchers) and who are not interested in the use of pool patents and their commercialisation, are regarded by the Commission to be less pro-competitive. It results from the fact that pure researchers, in their efforts to maximise profit, raise licence fees, which is facilitated by pools' activities²⁹. On the other hand, low licence fees are not prerequisite for recognising pools' activities as complying with EU competition law. The institutions in charge of competition laws should give consideration to the type and character of licence fees as well as to the principles of managing intellectual property rights within a pool.

Another controversial issue is the openness of patent pools to third parties. Not surprisingly, companies tend to protect their intellectual property against competition. From the economic perspective, the property which is a source of competitive advantage should be protected by enterprises. In the case of patent pools, members' intellectual property constitutes their common resources which, simultaneously, give particular companies a technological edge³⁰. However, according to EU competition law, the resources which

²⁷ European Commission, *Guidelines on the Application of Article 81...*, *op. cit.*, p. 27-29.

²⁸ P. Regibeau, K. Rockett, *op. cit.*, p. 22.

²⁹ *Ibidem*, p. 23, 32.

³⁰ H. Ullrich, *op. cit.*, p. 13-17.

build pools' competitive advantage should be also accessible to non-member firms.

CONCLUSIONS

It is a key issue for EU competition law and policy to prevent from patent pools violating fair competition principles. Therefore, exercising control over patent pools by EU law seems to be justified apart from the unquestioned benefits derived from technology transfers, easy access to patents and the accelerated process of knowledge commercialisation. However, compliance of activities carried out by patent pools with EU competition laws should be assessed in the context of economic and technological benefits related to pools' activities. Behaviors carried by some patent pools result in gaining a dominant market position, creating entry barriers and market monopolisation. Such situations should be eliminated – market competition stimulates technological advancement, giving consumers a share in the resulting benefits.

The presented analyses indicate that the EU is introducing regular improvements to its legal regulations to remove barriers to establishing patent pools – the entities which are positively assessed from the perspective of technological progress. Simultaneously, the EU is concerned about protecting competition practices, and the European Commission, on an increasing scale, eliminates administrative barriers to the establishing and functioning of patent pools. However, a number of problems in this area remain unsolved.

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