The "*Non-discrimination*" portion of the FRAND obligation: an EU perspective

La porzione "n-d" dell'impegno FRAND: una chiave di lettura europea

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ABSTRACT:

This contribution is aimed at exploring what is the right role the "ND" portion within the FRAND commitment should play when determining if a certain license is indeed not FRAND. The literature on the subject is indeed broad, but this aspect has largely been downplayed, mostly relegated to the role of a nuance of the overall test aimed at determining when the royalty level can be said to be fair and reasonable. A valuable help to this purpose will be found in the recent EU jurisprudence on discriminatory conduct pursuant to art. 102, lett. c) TFEU where the Court has recently shed some lights on the concept of competitive disadvantage as direct consequence of the discrimination.

Keywords: patent; dominance; abuse; preliminary injunction; standard essential patent; standard; discriminatory conduct; price discrimination; excessive prices

*Il presente saggio si propone di affrontare il tema del valore da attribuire alla porzione "ND", relativa alla "non discriminatorietà", in seno all'obbligo del titolare di un brevetto essenziale di concedere licenza secondo termini FRAND. Nonostante, invero, la letteratura sul tema sia vasta, tale aspetto ha ricevuto scarsa attenzione ed è stato spesso analizzato come corollario del più ampio concetto di canone di licenza giusto (*fair*) e ragionevole (*reasonable*). In particolare, il saggio tenterà di estrapolare qualche utile spunto interpretativo dalla più recente giurisprudenza europea in materia di condotte discriminatorie ex art. 102, lett. c) TFUE, in cui la Corte di Giustizia ha meglio delineato il concetto di svantaggio competitivo cui deve essere assoggettata la controparte contrattuale dell'impresa dominante, come conseguenza diretta della condotta abusiva.*

***Parole chiave**: brevetto; dominanza; abuso; ingiunzione preliminare; brevetto essenziale; standard; condotta discriminatoria; discriminazione di prezzo; prezzi ingiustificatamente gravosi*

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The principle of non-discrimination is a core one within the law of the European Union. Articles 2 and 3 of the TEU make clear that the EU is funded on values of democracy and equality, where every form of discrimination will be fought against [1]. The right of an individual not to be discriminated against has been further recognized as a fundamental one by Article 21(1) of the Charter of Fundamental Rights.

According to the EU Courts, especially within the framework of the case law developed around the Charter of Fundamental Rights, the non discrimination principle would be a particular expression of the more general principle of equality (contained in art. 20) [2], the latter demanding that that comparable situations must not be treated differently and that different situations not be

[1] See at this regard also art. 8 and 19 of the TFEU establishing that the Union shall aim to eliminate inequalities and that the Council may take all appropriate measures to combat discrimination based on sex, *racial or ethnic origin, religion or belief, disability, age or sexual orientation.*

[2] See Judgment of the Court, 5th Chamber, 22 May 2014, *Glatzel v. Freistaat Bayern*, C-356/12, in 3 *Common Market L. Rev.* 52, 2014, § 43; Judgement of the General Court, 4th Chamber, 20 November 2017, *Petrov.* Case T-452/15, §§ 53-54, stating that art. 21 of the Charter "[…] is a particular expression of the principle of equal treatment […] and both that principle and the prohibition of any discrimination are simply two labels for a single general principle of law, which prohibits both treating similar situations differently and treating different situations in the same way unless there are objective reasons for such treatment (judgment of 27 January 2005, *Europe Chemi-Con (Deutschland) v Council*, C-422/02 P, EU:C:2005:56, paragraph 33)". See E. FRANTZIOU, *The Horizontal Effect of the Charter of Fundamental Rights of the EU: Rediscovering the Reasons for Horizontality*, in *Eur. L. J.*, 21, 5, 2015, 657-679; M. DE MOL, *The Novel Approach of the CJEU on the Horizontal Direct Effect of the EU Principle of Non-Discrimination: (Unbridled) Expansionism of EU Law?*, in *Maastricht J. Eur. Comp. L.*, 18, 1-2, 2011, 109-135.

treated in the same way [3], unless such treatment is objectively justified [4].

As far as competition law is concerned, it is well known that both Articles 101, 2°, lett. d) and 102, 2°, lett. c) of the TFUE prohibit conduct whereby two or more undertakings jointly or a single dominant firm apply «[…] dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage» [5]. The provisions have been interpreted as prohibiting discriminatory practices, on *any* grounds [6], provided that the discrimination would exert a (negative) *commercial* impact toward one or more firms acting at the same or at different levels of the production chain. Clearly, the conduct is prohibited, provided that there is not an objective justification for the discriminatory conduct [7].

Abusive conduct prohibited by the EU competition law provisions are punished when they affect trade between member States, the theory of harm being construed as either direct prejudice to consumers or, more broadly, as the disruption of the competitive structure of the market [8]. It is interesting to notice,

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[3] According to J. SCHWARZE, *European Administrative Law*, London, 1992, 564, the concept of treating in the same manner like matters first appeared in the Court of Justice jurisprudence in the joined cases C 7-54 and C 9-54, 23 April 1956, *Groupement des Industries Sidérurgiques Luxembourgeoises v High Authority of the European Coal and Steel Community*, 187, 197, 201, which, incidentally, was precisely about the concept of discrimination with regard to prices hereby discussed in the following. More recently see Judgement of the Court, Grand Chamber, 14 September 2010, *Akzo Nobel Chemicals Ltd v European Commission*, C-550/07, in *Common Market L. Rev.* 581, 2011, § 54.

[4] Cfr: *Glatzel v. Freistaat Bayern*, quoted (fn. 2), § 43 where the Court specified that "[…] A difference in treatment is justified if it is based on an objective and reasonable criterion, that is, if the difference relates to a legally permitted aim pursued by the legislation in question, and it is proportionate to the aim pursued by the treatment concerned (Case C-127/07 *Arcelor Atlantique and Lorraine and Others* EU:C:2008:728, paragraph 47, and Case C-101/12 *Schaible* EU:C:2013:661, paragraph 77)".

[5] See for a general introduction R. WHISH, D. BAILEY, *Competition Law*[8], 2015, 183-225, 721-809.

[6] See Décision de la Commission, du 2 juin 1971, IV/26 760, *GEMA*, And indeed, in *GEMA,* the collecting society discriminated, among other things, on the ground of nationality.

[7] A. JONES, B. SUFRIN, *EU Competition Law*[2], Oxford, 2001, 421.

[8] It is a firm principle of the European case law on art. 102 that its purpose is not limited to sanction practices that may cause damage to consumers directly, but also those which are detrimental to them by hampering the competitive structure of the market. See, General Court, Judgment of 30 January 2007, T-340/03, *France Telecom SA v. Commission*, 2008, 677, § 266; European Court of Justice, Judgment of 17 February 2011, C-52/09, *Konkurrensverket v. TeliaSonera Sverige AB*, in *Comp. Market L. Rev.*, 4, 18, 2011 § 24; European Court of Justice,

however, that in the specific case of discriminatory practices, the very same provision (i.e. 102, 2°, lett. c) of the TFUE) requires *as an explicit consequence of the conduct* that trading partners are placed at a competitive disadvantage. This specification has important implications because it suggests not only that this type of conduct must target trading partners of the dominant firm and not consumers [9], but it is specifically demanded that the theory of harm must be construed around the position of the undertaking that has been target of discriminatory practices (to see whether she has suffered (or is likely to suffer) any harm – *literally* a competitive disadvantage because of the discrimination) [10].

While the framework above seems to suggest that discriminatory practices would mostly fall into the category of exclusionary conducts, aimed at pursuing the *foreclosure* of competitors, it must be underlined that where the discriminatory conditions affect the prices imposed to different commercial counterparts, such conduct could also take the nuances of an exploitative abuse, where the dominant firm tries to extract from each single commercial partner the maximum amount she is willing to pay in order to get the desired product, item, input and so on.

In such a case, as happens indeed in the case of *FRAND* licenses [11], the issue of discrimination overlaps with the issue of excessive pricing, as normally the discrimination takes the form of a higher price to be paid by certain counterparts as compared to the one price to be paid by others [12].

Judgment of 16 September 2008, joined cases C-468/06 to C-478/06, *Sot. Lélos kai Sia and others v. GlaxoSmithKline AEVE*, § 176; European Court of Justice, Judgment of 15 March 2007, C-95/04, *British Airways Plc. V. Commission*, § 106.

[9] See, however, M. Libertini noting that the literal reading of this provision must not lead to conclude that all discriminatory conduct towards consumers are always to be deemed lawful. See M. LIBERTINI, *Diritto della concorrenza dell'Unione europea*, Milan, Giuffrè, 2014, 326.

[10] In this sense see G. OLIVIERI, F. GHEZZI, *Diritto Antitrust*[2], Turin, Giappichelli, 2019, 224, according to which the goal of this specific provision would be to impede that the dominant firm use its bargaining power to discriminate against some parties in order to favour certain others, maybe because the latter happen to share with it some other business or could be part of the same group.

[11] See *infra* § 2 and 3.

[12] Price discrimination has been defined as the practice of selling units of identical goods to different customers, at various price-levels not in the same ratio to marginal costs, cfr. G. J. STIGLER, *Theory of price*[2], New York, 1987, 206. For a general introduction to the issue see OECD, *Price Discrimination – Background Note by the Secretariat*, DAF/COMP(2016)15.

1.1. *The requirement of comparable transactions in EU competition law.*

The analysis of the EU jurisprudence with regard to discriminatory conduct has developed around the concept of comparable transactions and the concept of competitive disadvantage.

The comparability of transactions is crucial to assess the anti-competitive nature of the practice, as indeed a difference in the terms and conditions offered could find justification in the fact that the different counterparts are indeed not comparable because, for example, the undertakings are different in structure and size, they operate at different levels of the production chain, or they are located in different regions or Member States where there could be different market conditions, different sectoral regulations, etc.

In a quite old decision on practices prohibited by Art. 60, 1°, second indent, of the Treaty, in the common market for coal and steel, the Commission clarified that for transactions to be deemed comparable a) they ought to be concluded with purchasers who compete with one another, or who produce the same or similar goods, or who carry out similar functions in distribution, b) they ought to involve the same or similar products, and in addition, it demanded that c) there ought not to be other relevant commercial features that essentially differ [13].

This line of reasoning has been then followed in later and more recent cases where the analysis of whether the commercial conditions were indeed discriminatory has been pursued by taking into account whether the commercial partners receiving the different offers were indeed situated in a comparable position on the market [14].

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[13] See Art. 3 of the 72/440/ECSC: Commission Decision of 22 December 1972, amending Decision No 30-53 of 2 May 1953, on practices prohibited by Article 60 (1) of the Treaty in the common market for coal and steel.

[14] See for example, Court Judgment of 24 October 2002, C-82/01 P, *Aéroports de Paris v. European Commission and Alpha Flight Services SAS*, confirming the *General Court (Third Chamber) Judgment of 12 December 2000, T-128/98, Aéroports de Paris/Commission, stating that* "*[...]* both types of ground-handling services must be taken into account for the purpose of ascertaining whether the fees are discriminatory." § 216. See also Judgment of 9 September 2009, *Clearstream, Banking AG v. Commission*, T-301/04, *Comp. Market L. Rev.*, 5, 24, §§ 159-190.

1.2. *The element of competitive disadvantage.*

The milestone case dealing with discriminatory practices in the EU is the very well known *United Brands* case [15]. As known, UBC used to charge different selling prices for the very same good (i.e. bananas with identical features and branded with the same trademark) to distributors/ripeners located in different Member States. According to the Court, not only was UBC gaining extra profits by charging discriminatory prices to some distributors, but such prices were also excessively high, as they had been wrongly calculated by leaving out one stage of the chain (i.e. the very same distributors) and by just taking into account the interaction between demand and supply between the vendor and the ultimate consumer [16]. In this case, however, the distributors were not competing among themselves, as the markets where the bananas were sold were indeed national. Hence, strictly speaking, there was not a competitive disadvantage of distributors intended as the diminished capability to compete among themselves, but rather an economic prejudice for the ones charged more, as compared to the others who would buy the same identical goods at a far more convenient price.

Surely, the overall conclusion of the Court, in this case, was heavily influenced by the summing up of all conduct contested to UBC and, in particular, by the so called "green banana clause" having the effect of impeding exportation of the product from one Member States to another, pre-empting arbitrage, with the ultimate consequence of fortifying national barriers, against the goal of creating an EU internal market. However, in this case, the element of the competitive disadvantage was largely ignored [17], and the finding of abuse merely rested on the discriminatory treatment in terms of prices for equivalent transactions (i.e. the selling of the very same product) to similarly situated customers (distributors facing the same unloading and transportation costs). In other subsequent decisions, the EU Courts have seemingly ignored the element of the competitive disadvantage and have been contented with a finding that the discriminatory conduct would – or be likely to – cause a distortion of competition [18].

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[15] Court Judgment of the 14 February 1978, C 27/76, *United Brands Company and United Brands Continentaal BV v Commission of the European Communities*, *Chiquita Bananas*, ECR [1978]-207.

[16] Cfr. *United Brands* (fn. 15), § 230.

[17] A. JONES, B. SUFRIN, (fn. 7), 351.

[18] See, for example, Judgment of 21 October 1997, T 229/94, *Deutsche Bahn AG v. Com-*

In 2007, the European Court of Justice rendered its sentence on the *British Airways v. Commission* case [19]. At that time, the debate on the "more economic" approach to Art. 82 (then) of the Treaty was a front issue [20], and the Court slowly began to endorse a different position on the issue of discriminatory conduct.

In the opening of the judgment, the Court restated the principle that "The specific prohibition of discrimination in subparagraph (c) of the second paragraph of Article 82 EC forms part of the system for ensuring, in accordance with Article 3(1)(g) EC, that competition is not distorted in the internal market" [21]. However, in the following paragraphs, the Court added that for the conditions set for in Art. 102, 2°, subparagraph c) to apply "[…] there must be a finding not only that the behaviour of an undertaking in a dominant market position is discriminatory, but also that it tends to distort that competitive relationship, in other words: *to hinder the competitive position of some of the business partners of that undertaking in relation to the others*" (italics added) [22].

The Court is not very clear in its wording about whether it believes that distortion of competition should result or not in an impairment of competition in the market segment where the discriminated company competes with similarly situated market operators or in relation to her competitive relation vis-à-vis the dominant firm [23]. Nonetheless, in another significant point of the rul-

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mission of the European Communities, ECR-II-1689, in *Comp. Market L. Rev.*, 4, 1998, 220, later confirmed by the Court of Justice with the Judgment of 27 April 1999, C-436/97, *Deutsche Bahn AG v. Commission*, in *Comp. Market L. Rev.* 5, 1999, 776, where the General Court concluded that «[…] an undertaking may not apply artificial price differences such as to place its customers at a disadvantage and to distort competition", treating the latter two elements as if they meant the same thing».

[19] *British Airways Plc. V. Commission*, (fn. 8).

[20] For an extensive review of such debate E. AREZZO, *Is there a Role for Market Definition and Dominance in an effects-based Approach?*, in M-O. MACKENRODT, B.C. GALLEGO, S. ENCHELMAIER (eds.), *Abuse of Dominant Position: New Interpretation, New Enforcement Mechanisms?. MPI Studies on Intellectual Property, Competition and Tax Law*, 5, Berlin, Heidelberg, Springer, 2008, 21 ff., 23-27, *sub* nt. 1-25, and G. GHIDINI, E. AREZZO, *L'assalto fallito? Riflessioni sulla proposta rivisitazione della disciplina dell'abuso di posizione dominante in chiave "più economica" e sulla Comunicazione della Commissione riguardante l'applicazione dell'art. 102 del Trattato CE alle pratiche escludenti*, in L.A. BIANCHI, F. GHEZZI, M. NOTARI (eds.), *Diritto Mercato ed Etica*, Milan, Egea, 2010, 525 ff., 527-528, *sub* nt. 8-11. See also P. IBÁÑEZ COLOMO, *Beyond The "More Economics-Based Approach": A Legal, Perspective On Article 102 TFEU Case Law*, in *Common Market L. R.*, 53, 2016, 709.

[21] *British Airways Plc. V. Commission*, (fn. 8), § 106.

[22] *Ibidem*, § 144.

[23] The Court indeed stresses that "the commercial behaviour of the undertaking in a domi-

ing, the Court seemed to embrace a clear stance against the so called *effects-based approach,* when it held – rejecting the plea of the party – that the finding of abuse for this specific type of conduct does not further requires proof of "[…] an actual quantifiable deterioration in the competitive position of the business partners taken individually"[24]. A rather conservative approach which emerged again in a later judgement of the General Court when it was similarly held, by way of presumption, that "[…] the application to a trading partner of different prices for equivalent services continuously over a period of five years and by an undertaking having a de facto monopoly on the upstream market could not fail to cause that partner a competitive disadvantage"[25].

1.3. *Clarification of the nature and proof of the "competitive disadvantage" element.*

The issue of how to properly construe the element of the competitive disadvantage within a unilateral discriminatory conduct has been recently discussed in great length by the Court of Justice thanks to a preliminary ruling lodged by the Tribunal da Concorrência, Regulação e Supervisão (Competition, Regulation and Supervision Court, Portugal). The case concerned the alleged discriminatory conduct pursued by the Portuguese Collecting Society for neighboring rights (Cooperativa de Gestão dos Direitos dos Artistas Intérpretes ou Executantes) "GDA" who had apparently set different terms and conditions – and in particular a higher royalty rate – to MEO, an entity which provided a paid television signal transmission service and television contents, as compared to the one practices to its competitor NOS Comunicações SA ("NOS")[26].

The case was set aside by the Portuguese CA who, after an in-depth analysis of the market, and relying on costs, income and profitability structures of the retail offerings of the television signal transmission service and television content, concluded that the tariff differentiation did not have any restrictive effect on MEO's competitive position, and lacking proof that the discriminato-

nant position may not distort competition on an upstream or a downstream market, in other words between suppliers or customers of that undertaking", but then immediately adds that "co-contractors of that undertaking must not be favoured or disfavoured in the area of the competition which they practice amongst themselves". *Ibidem*, § 143.

[24] *Ibidem*, § 145.

[25] See, *Clearstream Banking AG v. Commission*, (fn. 9), § 194.

[26] See Court Judgement of 19 April 2018, C-525/16, *MEO – Serviços de Comunicações e Multimédia SA v. Autoridade de Concorrência*.

ry conduct would *actually* put one or more undertaking at a competitive disadvantage no distortion of competition could be assumed (hence there could be no abuse of dominance). MEO appealed, arguing that the approach of the CA was flawed, insofar as it examined whether there had been a significant and quantifiable distortion of competition, in terms of actual harm suffered by the discriminated firm, whereas the EU case law had just asked that the discriminatory conduct be capable of distorting competition on the relevant market[27]. Despite finding the NCA discourse sound and reasonable, the referring Court was not entirely convinced by such straightforward application of the effects-based approach to unilateral discriminatory conduct and its compatibility with the EU jurisprudence. Therefore it lodged a preliminary ruling.

In its judgement, the Court of Justice referred to a great extent to its previous ruling in *British Airways*; it clarified, however, some significant features. First of all, the Court explained that it is not necessary for a finding of abuse pursuant to Art. 102, 2°, lett. c) that the abusive conduct has any impact whatsoever on the competitive position of the dominant firm "[…] on the same market in which it operates, compared with its own potential competitors"[28]. With this, the Court clarified that the competitive disadvantage suffered by the discriminated commercial partners needs not to translate into a competitive advantage to be gained by the dominant firm and that, therefore, the abuse can only be referred to second line discrimination cases[29]. Further, the Court clari-

[27] *Ibidem*, §§ 13-14.

[28] *Ibidem*, § 24.

[29] Unlawful price discrimination may alternatively take the form of (1) a primary line injury (exclusionary conduct), when the discrimination is targeted at the competitor's customers in a way to drive the competitor out of the market (typically undercutting his prices) or (2) a secondary line injury (exploitative/distortionary conduct), when it targets a downstream customer, hampering its ability to compete with its rivals by either imposing him an excessive price or somehow by favouring his competitors. Broadly on the subject M. MOTTA, *Competition Policy – Theory and Practice*, Cambridge, CUP, 2004, 493. Pursuant to a widespread doctrinal understanding, art. 102, 2°, c) clearly aims at regulating second-line discriminations (exploitative/distortionary) where trading partners of the dominant firms compete among themselves. See D.J. GIFFORD, R.T. KUDRLE, *The Law and Economics of Price Discrimination in Modern Economies: Time for Reconciliation?*, in *U.C. Davis L. Rev.*, 43, 2010, 1235-1293, 1272-1276, available at https://scholarship.law.umn.edu/faculty_articles/358. Accordingly, the European Court of Justice has been criticized for misusing art. 102, 2°, c) to punish first-line discrimination cases, such as fidelity rebates (See Court Judgment of 13 February 1979, C 85/76, *Hoffmann-La Roche & Co. AG v Commission of the European Communities*, § 90), whereas such provision is clearly aimed at punishing only second-line price discrimination. See at this regard D. GERADIN, N. PETIT, *Price Discrimination under EC Competition Law: The Need for a case-*

fied that, in such specific circumstances, the concept of competitive disadvantage ought to be interpreted to cover a situation where the behaviour is capable of distorting competition between *those trading partners* [30]. It is important to note that the Court specifically asked for the trading partners operating downstream to be direct competitors (the Court talked about "discrimination between trade partners *which are in a competitive relationship*").

With specific regard to *price* discrimination practiced by the dominant firm on operators competing in a downstream market, the Court further argued that "[…] the mere presence of an *immediate disadvantage affecting operators who were charged more,* compared with the tariffs applied to their competitors for an equivalent service, does not, however, mean that competition is distorted or is capable of being distorted" [31]. And indeed, the difference in pricing conditions could find an objective justification in the different (economic, financial, structural) position of the competing firms.

According to the Court, while there was no need to prove any actual, quantifiable deterioration in the position of the discriminated partner [32], the concept of competitive advantage rested on an analysis that must take into account all the relevant circumstances of the case and should hinge on the assessment that the conduct has "an effect on the costs, profits or any other relevant interests of one or more of those partners so that that conduct is such as to affect that situation" [33].

2. *The peculiar case of SEPs.*

A standard-essential-patent is a patent insisting on a teaching, often a sliver of technology, that forms a standard [34]. While sometimes standards emerge *de facto,* as a result of a natural process within the market whereby consumers

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by-case Approach, GCLC Working Paper 07/05, 2005, 9-10, at https://www.coleurope.eu/system/files_force/research-paper/gclc_wp_07-05.pdf.

[30] See *MEO – Serviços de Comunicações e Multimédia*, SA v. Autoridade de Concorrência, (fn. 26), § 37. Note that the Court specifically mandates that those trading partner must be in a competitive relationship.

[31] *Ibidem*, § 26.

[32] *Ibidem*, §§ 27, 37.

[33] *Ibidem*, § 37.

[34] For a complete overview of all possible types of standards see M. DOLMANS, *Standards for standards*, in *Fordham Int. L. J.* 26, 2002, 163, 164.

gradually gather all around the same product[35], often market participants themselves recognize the importance to elicit together a standard to be commonly adopted within the industry[36]. In this latter case, specific entities are created – so called *standard setting organizations* (i.e. SSO) – which will deal with the standardization process and make sure that the best technology is selected and that it is then accessible to all market participants[37]. This precisely because, although not *legally* binding, conformity to such standards becomes extremely valuable to manufacturers willing to produce standard-compatible devices, as their products would be far less appealing to consumers when not standard-compliant (think of a new generation smartphone only capable of connecting to GSM technology)[38]. When access to the standard becomes then

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[35] As a further consequence, the presence of standard compatible products will make the standard even more appealing to consumers who will keep aligning to it. The literature on direct and indirect network effects is vast. Among the most relevant studies see: M.L. KATZ, C. SHAPIRO, *Network Externalities, Competition, and Compatibility*, in *Am. Econ. Rev.*, 75, 1985, 424; C. SHAPIRO, H.R. VARIAN, *Information Rules, A Strategic Guide to the Network Economy, Harvard* Business School Press, 1999; M.A. LEMLEY, D. MCGOWAN, *Legal Implication of Network Economic Effects*, in *Calif. L. Rev.*, 86, 1998, 479; J. FARREL, M.L. KATZ, *The Effects of Antitrust and Intellectual Property Law on Compatibility and Innovation*, in *Antitrust Bull.* 43, 1998, 609.

[36] On the benefits coming from standardization in terms of enhanced interoperability, improved products quality, lower risks for consumers to stay locked-into a technology which rapidly becomes obsolete, increased downstream competition (i.e. in the market of standard-compatible devices), see P. CHAPPATTE, *Frand commitments – the case for antitrust intervention*, in *Eur. Comp. J.*, 2009, 319, 322 ff. Similarly, A. JONES, *Standard-essential patents: FRAND commitments, injunctions and the smartphone wars*, in *Eur. Comp. L. J.l*, 1, 2014, 3 (also stressing that standardization may facilitate competition among producers by reducing wasteful spending on technology and lowering costs for consumers). Standardization, however, also carries downsides. Competition between standards, indeed, surely spurs innovation. R. GRASSO, *The ECJ ruling in Huawei and the right to seek injunctions based on FRAND-encumbered SEPs under EU competition law: one step forward*, in *World Comp.*, 39, 2016, 213, 218; R.P. MERGES J.M. KUHN, *An Estoppel Doctrine for Patented Standards*, in *Calif. L. Rev.*, 97, 1, 2009, 7 ff.

[37] For a description of how the standardization process works within an SSO see A. LAYNE-FERRAR, A.J. PADILLA, *Assessing the Link Between Standard Setting and Market Power*, March 2012, http://ssrn.com/abstract=1567026, 5 ff.

[38] At this regard, see *Communication from the Commission, Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements*, OJ C 11, 14 January 2011, 1-72, § 266 where it explains that "[…] standards requiring that a particular technology is used exclusively for a standard or preventing the development of other technologies by obliging the members of the standard-setting organisation to exclusively use a particular standard, may lead to the same effect" (i.e. risk of emer-

essential to compete in the market, control – thanks to IPRs – on such technologies becomes the key to open the door to a wide stream of profits, as all manufacturers will need a license from the IPRs insisting on the standardized product or technology [39].

In order to avoid opportunistic behaviours by SEP holders, both in the phase before the standard has been selected and after [40], many SSOs have adopted detailed IPRs policies which compel their members to i) timely disclose the holding of patent(s) that might insist on a technology considered to be chosen as standard or to be further developed to become a standard; ii) endorse a duty to license such rights, to whomever interested, on *fair, reasonable and non-discriminatory* conditions (so called FRAND terms) [41]. The duty to disclose should eliminate the risks of so called *patent ambush,* as it happened in the *Rambus* case [42], while the commitment to license should eliminate the risk that the SEP holder incurs in unfair and abusive conduct. In fact, the requirement of fairness and reasonableness clearly aims at preventing exploitative unilateral abuses in the form of excessively high royalty rates and unfair trading conditions [43], which the SEP holder might try to impose on third

gence of barriers to entry for competitors and exclusion from the market, to the detriment of innovation).

[39] R. GRASSO, *The ECJ ruling*, (fn. 36), 221.

[40] Standard setting process involves several decisions to be jointly taken by SSO members, to select each technical contribution to form the standard technology. Competing technical contributions come from the very same SSO members who, in parallel with the standardisation process, conduct their own research and file patent applications to protect their innovations. Given the increased value patents gain once their underlying technology is selected to be part of a standard, many firms are lead to engage in opportunistic behaviors which have been defined as "just-in-time patents", meaning that they use to file patents, often of low quality, right before a standardization meeting takes place in order to participate to the meeting to the sole purpose of negotiating the inclusion of their technology in the standard. See B. KANG, E. BEKKERS, *Just-in-time patents and the development of standards*, in *Research Policy*, 44, 2015, 1948.

[41] See the *General Guidelines for the Co-operation between CEN, CENELEC and ETSI and the European Commission and the European Free Trade Association*, signed on 28 March 2003, [2003] OJ C91, 5, where it is established that SSOs «Ensure that all interested parties have access to standards, by broad provision of information on their availability, and by ensuring that standards, including any intellectual property rights (IPRs) they might contain, can be used by market operators on fair, reasonable and non-discriminatory conditions».

[42] Commitment's Decision, 9 December 2009, COMP/38.636, *Rambus*, *FAQ Press Release on the Rambus commitments decision*, MEMO IP/09/544.

[43] See at this regard J. KATTAN, *FRAND Wars and Section 2*, in *Antitrust*, 27, 2, 2013, 30, 32, observing that while the FRAND commitment is an obligation to accept a royalty that is

parties, and the element of non-discrimination should imply a duty not to apply dissimilar conditions to equivalent transactions: i.e. not to discriminate in setting licensing conditions and royalty rates among different implementers [44]. While it is dubious whether such obligations can refrain strategic behaviours of firms overstating the essentiality of their rights to the standard [45], especially in the case of low quality patents, the obligation to license at FRAND terms clearly curtails a good portion of the excluding powers stemming from patent rights, as SEP holders basically accept the fact that they cannot refuse licensing their rights to third parties [46].

Now, technology markets are populated by two types of firms: i) firms (solely) active in such (upstream) markets, whose goal is profit maximization throughout licensing of the technology, and ii) vertically integrated firms also active both in the upstream technology market and in one (downstream-) related market, deriving majority of profits from the sale of the end products in the latter market [47]. In both cases, discrimination could easily occur. In the latter scenario, the vertically integrated firm could find profitable to license on terms which are not FRAND (typical example of an excessively high royalty) to a company who happen to be his direct competitor in the downstream market. Here, as hinted, the issue of discrimination overlaps with the issue of ex-

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reasonable in light of the available *ex ante* technological alternatives, a SEP holder breaching the commitment will seek royalties whose rate reflects the absence of *ex post* alternatives.

[44] See P. CHAPPATTE, *Frand commitments – the case for antitrust intervention*, in *Eur. Comp. J.*, 2009, 319, 333.

[45] On this point, see E. AREZZO, *Brevetti essenziali, dominanza e abuso nel settore delle* information and communication technologies, in *Giur. comm.*, 2019, I, 926, 935 ff.

[46] See J. KATTAN, (fn. 43), 31, explaining that by accepting the FRAND commitment, the firm accepts to surrender significant legal rights: namely, i) her right to refuse to license the patented technology, hence to enjoin any willing licensee, and ii) to set supra competitive royalties. Also, Kattan observes that the essence of a FRAND commitment is a promise to forgo the ability to control price and exclude competition that otherwise would be created by a patent's incorporation into a standard. *Ibidem*, 33.

[47] In the aforementioned Guidelines on horizontal co-operation agreements, where the Commission explains that while for upstream-only companies the only source of income is licensing revenue and their incentive is to maximise their royalties, vertically integrated companies have mixed incentives. In fact, on the one hand, they can draw licensing revenue from their IPR, but on the other hand, they may have to pay royalties to other companies holding IPR essential to the standard. The Guidelines also point out at a third category of players not active in the upstream technology market: these are pure manufacturers of products or services based on the technologies. For such "downstream-only" companies, who do not hold any relevant IPRs, royalties to get access to intangible assets are just a cost. See *Guidelines on the applicability of Article 101*, (fn. 38), § 267.

cessive pricing [48], and would fine its ultimate purpose in the exclusion of the discriminated competitor. However, in the first case, when firms are only active in the upstream market for the technology, discrimination against downstream customers (in the form of second line discrimination then) could also be profitable to maximize profits coming from the royalties' flow. By exerting its market power against implementers compelled to get a license the SEP holder could extract more revenues [49].

3. *The "ND" part of the FRAND commitment.*

As well known, while the literature has been mostly keen to the appropriate determination of the FRAND royalty rate on the perspective of how to measure a fair and reasonable price for the license [50], the "ND" aspect of the

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[48] See J. PADILLA, D.H. GINSBURG, K.W. WONG-ERVIN, *Antitrust Analysis Involving Intellectual Property and Standards: Implications from Economics*, in *Harv. J. L. & Tech*, 33, 1, 2019, 1, 35-40, available at SSRN: https://ssrn.com/abstract=3119034. See specifically D. GERADIN, M. RATO, *Frand Commitments and EC Competition Law: A Reply to Philippe Chappatte*, in *Eur. Comp. J.*, 6, 1, 2010, 129-174, P. CHAPPATTE, *Frand commitments – the case for antitrust intervention*, in *Eur. Comp. J.*, 2009, 319-346, D. GERADIN, M. RATO, *Can Standard-setting Lead to Exploitative Abuse? A Dissonant View on Patent Hold-up, Royalty Stacking and the Meaning of FRAND*, in *Eur. Comp. J.*, 3, 2007, available at SSRN: https://ssrn.com/abstract=946792.

[49] Several scholars, however, have questioned the profitability of secondary line discrimination precisely because of the fact that the dominant firm is not active in the downstream market and would have therefore no incentives to discriminate. See D. GERADIN, *Pricing Abuses by Essential Patent Holders in a Standard-Setting Context: a View from Europe*, in *Antitrust L. J.*, 2009, 76, 1, 329-357; D.A. CRANE, *Patent Pools, RAND Commitments, and the Problematics of Price Discrimination*, in *Cardozo Legal Studies Research Paper*, 2008, 232, 3; D.G. SWANSON, W.J. BAUMOL, *Reasonable and nondiscriminatory (RAND) royalties, standards selection, and control of market power*, in *Antitrust L. J.*, 73, 1, 2005, 1-58, 27. See also the Opinion of the Advocate General Wahl in *MEO – Serviços de Comunicações e Multimédia SA v. Autoridade de Concorrência*, (fn. 26) § 80.

[50] See M. DHENNE, *Calculation of FRAND Royalties: An Overview of Practices Around the World*, in *Eur. Int'll. Property Rev.*, 41, 12, 2019, 754; G. GHIDINI, M. TRABUCCO, *Il calcolo dei diritti di licenza in regime FRAND: tre criteri pro-concorrenziali di ragionevolezza*, in this journal, 1, 2017, 2; A. LAYNE-FARRAR, *The Economics of FRAND*, in R.D. BLAIR, D.D. SOKOL (eds.), *The Cambridge Handbook of Antitrust, Intellectual Property, and High Tech*, 2017, Cambridge, 55; M. FRANZOSI, *Royalty per uso di brevetto standard: But For, Georgia Pacific, Apportionment*, in *Dir. ind.*, 1, 2015, 259; E.F. SHERRY, D.J. TEECE, P. GRINDLEY, *FRAND Commitments in Theory and Practice: A Response to Lemley and Shapiro's "A Simple Approach"*, 13 April 2016, in *The university of California Berkeley Tusher Center Working Pa-*

FRAND commitment has remained largely in shadow. This could be mostly attributed to the fact that many commentators have interpreted the "ND" prong as a feature to be read together with – in a way to reinforce – the element of fairness. In this way, non-discrimination would be read as a nuance of the general obligation to act in good faith and grant access to all interested parties, without any discrimination among them both with regard to access itself and to the contractual conditions of such access [51].

In the second part of this study, we are going to explore how we can better construe the concept of ND in the FRAND obligation by factoring in the recent achievements of the EU jurisprudence on art. 102, 2° lett. c). To this purpose, two questions are relevant. The first question concerns whether the SEP holder can or cannot discriminate among different categories of implementers situated at different levels of the production chain by choosing at which level to license or whether, on the contrary, respect of the FRAND commitment demands that he has a general obligation to license to whomever asks for a license, regardless of which level he is situated at. The second question regards whether the ND prong should be interpreted as an implicit element, automatically satisfied when the FRAND royalty is set, or rather whether it should play a more active role within likely antitrust controversies on the matter. These questions, of course, are only relevant assuming that antitrust in general has a role to play in such cases [52].

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per series, n° 3, available at https://ssrn.com/abstract=2764615; M.A. LEMLEY, C. SHAPIRO, *A Simple Approach to Setting Reasonable Royalties for Standard-Essential Patents*, in *Berkeley Tech. L.J.*, 2013, available at https://law.stanford.edu/publications/a-simple-approach-to-setting-reasonable-royalties-for-standard-essential-patents/; M.A. LEMLEY, C. SHAPIRO, *Patent Holdup and Royalty Stacking*, in *Texas L. Rev.*, 85, 2007, 1991; D.G. SWANSON, W.J. BAUMOL, *Reasonable and Nondiscriminatory (RAND) Royalties, Standards Selection and Control of Market Power*, supra (fn. 49).

[51] See R.J. GILBERT, *Deal or No Deal? Licensing Negotiations in Standard-Setting Organizations*, in *Antitrust L.J.* 77, 2011, 855, 860 ff., 870, arguing that non-discrimination obligation allows all licensees of a SEP to obtain equivalent terms regardless of whether they negotiate before or after the standard has been adopted. Gilbert further argues (at 880-881) that an indirect beneficial effect generated by the non-discrimination provision would be that it discourages the setting of low royalty rates for licensing SEPs, because the SEP holder may fear an imposition to offer the same rate to all licensees.

[52] The North-American Ninth Circuit – followed soon after by the District Court of Northern Texas – has recently stated that disrespect of FRAND commitment does not amount to an antitrust violation (Court of Appeals for the 9th Cir. Judgment of 11 August 2020, *FTC v. Qualcomm Inc.*, 969 F.3d 974; Northern Texas District Court Judgment of 10 September 2020, 3:19-cv-02933-M, *Continental Automotive System Inc. v. Avanci* LLC et al, 2020 WL 5627224). Such an opinion also

4. *LTA vs. ATA and the implications for 5G standards and IoT technologies.*

Differently from what generally happens with general IP licensing, access to the essential technology forming the standard is likely to be claimed by a quite heterogeneous type of undertakings along the production chain: from the manufacturer of the component that physically implements the standard (for example, a manufacturer of a chipset embedding the wireless communication technology) to the producer of the complex end product sold to consumers (i.e. the smartphone vendor) [53]. Furthermore, the producers of end products incorporating the standard can be very different ones: from smart-phones companies to smart-fridge vendors to car manufacturers.

Since patent holders are supposed to extract profits only once from the patented product, because of the so called patent exhaustion doctrine, the question of whether the ND portion of the FRAND commitment gives rise to an obligation to license to whoever asks for a license carries significant monetary implications. Indeed, should SEP holders be compelled to license at the component level, they would exhaust their rights there; however, they would gain way more by licensing far downstream to end product manufacturer, where the profits are higher [54].

Scholars have taken different stances on such a controversial issue. Proponents of the so called "access to all" approach argue that, in order to be adequately compensated for their investment in technology, SEP holder should be allowed to choose the most profitable category of market operators to whom to license (hence they should be entitled to choose to license exclusively at the end product level) [55]. Within this framework, implementers situated in other

appear to have been adopted by the Department of Justice in the US Department of Justice, *Business Review Letter*, 20-7 *Avanci LLC*, 2020, https://www.justice.gov/opa/pr/justice-department-issues-business-review-letter-avanci-proposed-licensing-platform-advance). Still appears unchanged, however, the different opinion from the Court of Appeals for the 3rd Cir. Judgment of 4 september 2007, *Broadcom Corp. v. Qualcomm Inc*., 501 F.3d 297, 314.

[53] J.L. CONTRERAS, A. LAYNE-FARRAR, *Non-discrimination and FRAND commitments*, in J. CONTRERAS (ed.), *The Cambridge Handbook of Technical Standardization Law: Competition, Antitrust, and Patents*, Cambridge, 2017, 186, 200 ff.

[54] See J. MARTINEZ, *FRAND as Access to All vs. License to All*, in *J. of Int.ll Property L. and Practice*, 14, 2019, 642, 648; J.L. CONTRERAS, A. LAYNE-FARRAR, (fn. 53), 186, 201; J-S BORGHETTI, I. NIKOLIC, N. PETIT, *FRAND Licensing Levels under EU Law*, in *Eur. Comp. J.*, 2021, 17 ff., available at https://ssrn.com/abstract=3532469.

[55] J-S BORGHETTI, I. NIKOLIC, N. PETIT, (fn. 54), 3.

(most likely upstream or intermediate) levels would simply access the standard with no need for a license [56] and the ND prong of the FRAND commitment should only demand that SEP holders do not discriminate between implementers within the same level of the market [57]. A corollary (i.e. that SEP holder does not discriminate between licensees who happen to be situated at the same level of the production chain and are direct competitors) which seems in line with the later findings of the Court of Justice in *Meo.*

Proponents of this approach further stress that when 5G will be completely operational, and the Internet of Thing will enshrine a new set of interoperable services, the full functionality of the standard will be captured only at the level of the end products and services sold to consumers [58]. Therefore, an ATA approach seems favourable in order for firms only active in the upstream standard technology markets to be able to reap the fruits of their investment by choosing the level of the production chain that is most profitable [59].

On the contrary, other scholars (proponents of the so called *license to all* approach) have pointed out that licensing at the component level better reflects the value of the standardized technology. Standards are indeed primarily implemented into an intermediate component (ex. a chip) which is later inserted into another intermediate product or into the end product to be sold to consumers [60]. Some other authors have emphasized that, by charging at the level

[56] Many argued that, in such a case, intermediate implementers would benefit from an implied license. See J.W. SCHLICHER, *The New Patent Exhaustion Doctrine of Quanta v. LG: What It Means for Patent Owners, Licensees, and Product Customers*, in *J. Patent & Trademark Office Society*, 90, 11, 2008, *passim*.

[57] A. LAYNE-FARRAR, *Nondiscriminatory Pricing: Is Standard Setting Different?*, in *Journ. Of Comp. L. & Econ.*, 2010, 1, at 18 and ff., D. CRANE, *Patent Pools, RAND Commitments, and the Problematics of Price Discrimination*, (fn. 49), 1, warning against a strict interpretation of the FRAND commitment which could inadvertently turn into « [...] an inflexible commitment to license at identical terms to all potential licensees».

[58] G.J. SIDAK, *The Proper Royalty base for Patent Damages*, in *J. Comp. L. & Econ*., 10, 4, 2014, 989 available at https://www.criterioneconomics.com/docs/emvr-entire-market-value-rule-proper-royalty-base-for-patent-damages.pdf; E. SHERRY, D.J. TEECE, *On the 'Smallest Saleable Patent Practicing Unit' Doctrine: An Economic and Public Policy Analysis*, 20 January 2016, in *The University of California Berkeley Tusher Center Working Paper series*, n° 11, available at https://ssrn.com/abstract=2764614.

[59] It is also worth noting that the ATA model has been followed until now in the mobile phones industry, where SEP royalties have been mostly collected at the final stage of the chain: namely, as a percentage on the smart-phones' sales. See B. HEIDEN, J. PADILLA, R. PETERS, *The Value Of Standard Essential Patents And The Level Of Licensing*, 23 October 2020, available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3717570.

[60] J. ORDOVER, A. SHAMPINE, *Implementing the FRAND Commitment*, in *Antitrust Source*,

of the final product, the SEP holders will be able to charge higher prices (as the royalty is calculated on the value of the end product and not the intermediate component). As a consequence, SEP holders would be able to extract value from downstream innovation conceived by others [61].

By a different token, some other scholars have rightfully pointed out that such an approach would be consistent with non-discrimination obligations set forth in the EU law and in competition law provisions, which would demand that any interested party should be granted a license, regardless of their position in the production chain [62]. This assumption would particularly seem in line with the European judgment in *Huawei* where the Court broadly refers to the concept of the willing licensee, referring to any firm who is willing to license on FRAND terms [63].

To solve the issue, a clarification would be helpful in terms of patent law. It is no secret, at least as long as European law is concerned, the doctrine of exhaustion finds its origin in trademark law, where it is clearly linked to the circulation of products bearing the trademark [64]. The doctrine has been then successfully imported into patent law, where it has been similarly interpreted in a way to exhaust the exclusive rights of the patent after the first act of commercial disposition of the patented product has occurred [65]. In the case of

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Oct., 1, 2014; R. GRASSO, *Standard Essential Patents: Royalty Determination in the Supply Chain*, in *J. Comp. L. & Practice* 8. 2017, 283. See also K.H. ROSENBROCK, (former Director-general of ETSI), *Why the ETSI IPR Policy Requires Licensing to All*, August 2017, https://www.fair-standards.org/wp-content/uploads/2017/08/Why-the-ETSI-IPR-Policy-Requires-Licensing-to-All_Karl-Heinz-Rosenbrock_2017.pdf, and *Licensing to All is the Rule under the ETSI IPR Policy: A response to Dr. Bertram Huber*, available at https://ssrn.com/abstract=3064894.

[61] K.H. ROSENBROCK, *Licensing* (fn. 60), p. 17.

[62] D. CARLTON, A. SHAMPINE, *An Economic Interpretation of FRAND*, in *J. Comp. L. & Econ.*, 9, 2013, 531, 546; S. BARAZZA, *Licensing Standard Essential Patents Part One: the Definition of FRAND Commitments the Determination of Royalty Rates*, in *J. Int'll. Property L. & Practice*, 9, 2014 465, 471; J. CONTRERAS, *A Brief History of FRAND: Analysing Current Debates in Standard Setting and Antitrust through a Historical Lens*, in *Antitrust L. J.*, 80, 2015, 39, 74 ff.

[63] Judgment of the Court, 16 July 2015, C-170/13, *Huawei Technologies Co. Ltd c. ZTE Corp., ZTE Deutschland GmbH*.

[64] See S. ARYA, *The Value of Standardized Technology to Connected Cars*, in *GRUR Int.*, 2020, 69, 365, highlighting the value (which translates in a higher willingness to pay) customers attribute to standardised technology in automobiles (in terms of enhanced mobility and safety, entertainment, and so on.

[65] See at this regard art. 6 of 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

a patent, however, there is not always straight relation between the patented invention and the final product entering the market, as the patent might refer to a substance, a component, an intermediate product or a research tool. In all these cases, where the component itself can be a tradable good, exhaustion might well operate at such level [66].

Recently, the debate on SEP royalties has shifted from the mobile sector to the automotive one, where the industry has made significant investments in new interconnected services meant to enhance both the safety of cars and the technological features of vehicles (i.e. integrated services relating to virtual maps, music streaming, inter-vehicle communications, and so on). This is confirmed by the preliminary ruling the Regional Court of Düsseldorf lodged in the *Nokia v. Daimler* case, where the Court submitted several questions concerning the licensing of SEPs for car-connected technology, in particular focussing on whether the SEP holder is obliged to grant a license to the suppliers of downstream operators selling the complex product containing the standard-compliant component or can successfully sue only the latter for patent infringement [67]. Hopefully, the Court of Justice will clarify things on the matter.

4.1. *General vs. Hard-edged discrimination.*

At a general level, it is believed that the ND portion of the FRAND commitment is intended to promote widespread adoption of a standard within a certain industry, as it ensures market participants that if and when they will

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the creation of unitary patent protection, art. 6 (Exhaustion of the rights conferred by a European patent with unitary effect) stating that «The rights conferred by a European patent with unitary effect shall not extend to acts concerning a *product covered by that patent* which are carried out within the participating Member States in which that patent has unitary effect after that *produc*t has been placed on the market in the Union by, or with the consent of, the patent proprietor, unless there are legitimate grounds for the patent proprietor to oppose further commercialisation of the product» (italics added).

[66] And indeed, at such regard, the Commission's Guidelines accompanying the TTBER more properly talk about «[…] a *product incorporating* an intellectual property right» establishing that whenever such product «[…] has been put on the market inside the European Economic Area (EEA) by the holder or with its consent, the intellectual property right is exhausted in the sense that the holder can no longer use it to control the sale of the product (principle of Union exhaustion)» (italics added). See the *Communication from the Commission – Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements*, OJ C 89, 28 March 2014, 3-50, § 6.

[67] Landgericht Düsseldorf, 26 November 2020, 4c O 17/19, *Nokia Technologies v. Daimler AG*.

implement a standard technology into their product, they will not be disadvantaged vis-à-vis competing market participants [68]. By the same token, it has been underlined that non-discrimination commitments can also work as strong embankments against potential hold-up by SEPs holders [69].

An in-depth analysis of the ND limb of FRAND commitments can surely be found in the British case *Unwired Planet v. Huawei,* where two possible interpretations of the ND portion were compared: a first "general" non-discrimination approach vis-à-vis a hard-edged one, eventually adopting the former.

Justice Birss embraced the general non-discrimination approach favoured by UP, which claims that the ND portion is

> «[…] *part of the overall assessment* of the inter-related concepts making up FRAND by which one derives a royalty rate applicable as a benchmark. This rate is non-discriminatory because it is a measure of the intrinsic value of the portfolio being licensed *but it does not depend on the licensee*» (italics added) [70].

Therefore, the general approach would imply that a royalty rate appropriately determined is, *per se,* also non-discriminatory, with no need for further comparison [71]. By contrast, the hard-edged approach would imply a distinct element to be factored in the analysis, «capable of applying to reduce a royalty rate […] which would otherwise have been regarded as FRAND» and this by taking «[…] into account the nature of the particular licensee seeking to rely on it» [72].

The approach of Justice Birss has been later confirmed by the Court of Appeal [73], whose judges considered the hard-edged alternative as being exces-

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[68] J.L. CONTRERAS, A. LAYNE-FARRAR, (fn. 53), 186, 188.

[69] See D.W. CARLTON, A.L. SHAMPINE, *Patent Litigation, Standard-Setting Organizations, Antitrust, and Frand*, in *Texas Int'll. Property L.J.*, 22, 3, 2014, 223, *passim*, at https://texashistory.unt.edu/ark:/67531/metapth653433/m2/1/high_res_d/UNT-0063-0027.pdf

[70] High Court of Justice, Judgment of 5 April 2017, *Unwired Planet v. Huawei*, 2017 EWHC 711 (PAT), § 177. The hard-edge approach was favoured by Huawei, who contended that the ND prong had to be given «its ordinary and unadorned meaning » that «like situations must be treated alike and different situations differently». Court of Appeal Judgment of 23 October 2018, *Unwired Planet v. Huawei*, 2018 EWCA Civ. 2344, § 133.

[71] UP also contended that the mere existence of differential royalty rates is not sufficient to amount to a breach of the obligation. Huawei must demonstrate that the difference is such as to cause a distortion of competition. *Idem*, § 133.

[72] *Unwired Planet v. Huawei*, 2017 (fn. 70), § 177.

[73] See *Unwired Planet v. Huawei*, 2018 (fn. 71), § 135, where it is explained that Huawei

sively strict and incapable of achieving a «[…] proper balance between a fair return to the SEP owner and universal access to the technology, without threat of an injunction» [74]. The Judge of the CA further stated that that «an effects-based approach to non-discrimination is appropriate» and that a non-discrimination rule had the potential to harm technological development of standards if it has the effect of compelling the SEP owner to accept a level of compensation for the use of its invention which does not reflect the value of the licensed technology.

5. *Conclusion.*

Is it really true that a properly tailored ND rule would affect technological developments? The FRAND debate could probably earn a lot by looking more closely at the recent jurisprudence of the CJEU in non-discrimination cases. The Court of Justice, indeed, has gone from a first *per se* approach in *UBC* where the mere act of discriminating between market operators was enough to rule in favour of abuse, to a more thoughtful approach which depicts the theory of harm around the concept of distortion of competition and competitive disadvantage.

The most recent cases have shown that a discriminatory conduct can only be punished if it causes a distortion of competition in the form of an alteration of the competitive relationship of downstream operators. It specifically requires that the undertakings in the downstream market be direct competitors, and it seems to require evidence that the conduct has somewhat a substantial impact on the overall market position of the discriminated party. Such insights could be preciously imported into the FRAND framework to construe a third intermediate approach between the general one, which has the practical result of depriving the ND limb of any significance, and the hard-edged one, which is blamed to threaten innovation in standards.

Sidak has recently put forward a framework whereby to properly assess the

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had not provided evidence that the difference between the two licensing terms – those in Samsung's licence and those in the putative license to offer to Huawei – were sufficient to distort competition.

[74] *Ibidem*, § 198. Further adding «We consider that a hard-edged approach is excessively strict, and fails to achieve that balance, whereas the general approach achieves the objective of the undertaking by making the technology accessible to all licensees at a fair price», and further noting that the effects of such an approach would be «akin to the insertion of the rejected "most favoured license" clause in the FRAND undertaking». *Id*. § 199.

ND limb of the FRAND obligation, it would be necessary to pursue a three pronged analysis: 1) analyse whether the supposed discriminated implementer is similarly situated to others by assessing whether they use the standard for comparable products, etc. 2) analyse whether the SEP holder is treating the implementers differently; 3) whether there is any objective justification for the different treatment [75].

Our intermediate approach would suggest to allow the allegedly discriminated willing licensee to claim that the proposed offer is not FRAND every time he is able to prove that the offer places him at a competitive disadvantage vis-à-vis other firms that are his direct competitors [76]. Not only, therefore, similarly situated customers, but similarly situated customers who must be in direct competition between themselves [77]. In this case, it would be upon the alleged discriminated firm to prove that the conduct of the dominant firm has had an impact on his costs, profits or any other relevant interest.

[75] G.J. SIDAK, *Fair and Unfair Discrimination in Royalties for Standard-Essential Patents Encumbered by a FRAND or RAND Commitment*, in *The Criterion Journal of Innovation*, vol. 2, 2017, 301, at 359-369.

[76] The justification for the different treatment can well lay in the different size, structure, and financial structure of the competing implementers. And indeed several authors agree that discrimination can well be welfare enhancing and efficient (see D.G. SWANSON, W.J. BAUMOL, *Reasonable and nondiscriminatory (RAND) royalties, standards selection, and control of market power*, (fn. 49) when the different treatment allow a wider group of participants to get access to the desired input or technology, where a uniform fee could live some licensees out of the market. In this sense: D.A. CRANE, *Patent Pools, RAND Commitments, and the Problematics of Price Discrimination*, in *Cardozo Legal Studies Research Paper*, 2008.

[77] According to D.W. CARLTON, A.L. SHAMPINE, *Patent Litigation, Standard-Setting Organizations, Antitrust, and Frand*, (fn. 69) , similarly situated firms would be those that *ex ante* (*i.e.* «before the patented technology at issue had been adopted into the standard and prior to the licensee incurring sunk costs» and « where an alternative is available») «expect to obtain the same incremental value from the patented technology compared to the next-best alternative technology.». According to this view, firms active in different market segments or entirely different markets (ex. handset manufacturer and a manufacturer of wireless monitors) can pay different royalties.