

SLOVAK UNIVERSITY OF AGRICULTURE IN NITRA

Faculty of European Studies and Regional Development

Department of Law



EU INTELLECTUAL PROPERTY

Innovations and Intellectual Property
in various fields of human life



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**DEPARTMENT OF LAW
FACULTY OF EUROPEAN STUDIES AND REGIONAL DEVELOPMENT
SLOVAK UNIVERSITY OF AGRICULTURE IN NITRA**

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(Innovations and Intellectual Property in various fields of human life)



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Edited by: doc. JUDr. Ing. Jarmila Lazíková, PhD.; Dr. habil. Ľubica Rumanovská, PhD.

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THE EUROPEAN COMMISSION EXPERT GROUP'S TAKE ON STANDARD-ESSENTIAL PATENTS: A SHORT COMMENTARY FOR A LONG REPORT

Igor Nikolic¹ - Niccolò Galli¹

¹ European University Institute, Florence, Italy

Abstract

European policymakers are seeking to improve the legal certainty, reliability and transparency of the standard-essential patent (“SEP”) licensing framework, as evidenced by several reports and communications over the recent years. In 2017, the European Commission committed to setting up an expert group (“EG”) to monitor SEP licensing markets and gather information on the internet of things (“IoT”) industries practices. In January 2021, the EG published a Report examining the challenges of SEP licensing in the IoT. This paper analyses the EG proposed reforms and comments on their suitability in the IoT licensing context. Overall, two major trends could be identified. One is the move towards greater clarity on the SEP landscape by knowing the number of truly essential SEPs, having more detailed and specific SEP disclosure and ensuring stronger validity chances of granted SEPs. The second is the move towards greater collective industry actions – from agreeing on aggregate royalty rates for a standard for different product categories, agreeing on the levels in the supply chains for licensing SEPs to formation of patent pools and implementer licensing platforms. While these are steps in the right direction, the implementation in practice remains contested. Following the Report structure, this paper first sketches the hotly debated IoT SEP licensing issues. Second, it addresses the EG’s SEP transparency proposals and advanced value chain licensing principles. Then, it reviews the structural reforms on FRAND terms and conditions and on SEP licensing negotiation. Last, the paper deals with patent pools and other collective SEP licensing negotiation proposals before concluding by summing up the findings and paving the way for future discussion.

Key words

Intellectual Property; FRAND; Antitrust; Innovation; Standardisation

Introduction

Back in 2017, the European Commission, in its Communication Setting out the EU approach to Standard-Essential Patents (‘SEPs’), committed setting up an expert group (‘EG’) to monitor SEP licensing markets and gather information on the internet of things (‘IoT’) industries practices.¹ It followed suit with a Decision of 5 July 2018, two months after which it appointed 15 experts asking them to identify SEP licensing and valuation challenges and possible solutions primarily for the IoT and small and medium-sized enterprises’ needs.²

¹Commission, “Setting Out the EU Approach to Standard Essential Patents,” [Communication] COM(2017) 712 Final, 8.

² The individual experts appointed in their personal are: Justus Baron from Northwestern University, Damien Geradin from Tilburg University/Geradin Partners, Sam Granata from Antwerp Appeal Court/EPO, Bowman Heiden from Center for Intellectual Property Gothenburg/University of California Berkeley, Matin Heinebrodt from Bosch (replacing since November 2018 Axel Waltz), Fabian Hoffmann from the German Federal Court of Justice, Aleksandra Kuźnicka-Cholewa from CMS, Taraneh Maghame from Via Licensing Corp., Monica Magnusson from Ericsson, Jorge Padilla from Compass Lexecon, Ruud Peters from Peters IP Consultancy,

Although all but one expert acted in their personal capacity, after seven closed-doors meetings, the report delivered in January 2021 is very much polarised along with the patent hold-up and hold-out campaigns of the stakeholders several experts work for.³

The expectations on the SEP EG were great since its establishment recognised the Commission's need for external specialist advice as a basis of sound policymaking in the ever more prominent industrial policy area of standardised ICT technologies. At least five European circumstances added suspense on the EG's outcome:

- i) A pending antitrust complaint before the European Commission by automotive firms Continental, Valeo, Gemalto, Daimler and Bury Technologies against Nokia's SEPs licensing practices since late 2018;⁴
- ii) Ongoing evaluation of the Art. 101 TFEU horizontal agreements block-exemption regulation expiring on 31 December 2022, whose guidelines address standardisation and FRAND-licensing commitments;⁵
- iii) Advancing patent law reform in Germany, the busiest patent litigation forum in Europe, that would introduce a 'disproportional hardship' defence for infringers against otherwise justified cease-and-desist orders;⁶
- iv) The Commission's IP Action Plan of 25 November 2020 stating that the Commission will *improve transparency and predictability in SEP licensing via encouraging industry-led initiatives ... combined with possible reforms, including regulatory if and where needed...*⁷
- v) The 26 November 2020 preliminary ruling referral by the Düsseldorf Regional Court in the Nokia v Daimler case calling the CJEU to indicate whether SEP-holders can choose whom to license their patents in the supply chain and to elucidate further the timing of the Huawei v ZTE negotiating framework.⁸

Policymakers, courts, and standard-development organisations ('SDOs') expecting to copy-paste SEP solutions from the EG will be disappointed. The non-binding, consulting 230-page report advances 79 interlinked and high-level structural reforms, of which 36 main proposals, 40 sub-proposals and three sub-sub-proposals, none of which all members fully endorse. When members anonymously rated each proposal through a one-to-five Trip Advisor-like star-rating system, not only they reached no consensus on any single proposal,

Matthias Schneider from Audi. The individual expert appointed as representative of a common interest is Sebastiano Toffaletti from European Digital SME Alliance. In November 2020, Roya Ghafele from OxFirst left the group.

³J. Baron et al, "Group of Experts on Licensing and Valuation of Standard Essential Patents - Contribution to the Debate on SEPs," (January 2021) (SEPs Expert Group Report) <https://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=40990&no=5>.

⁴<https://mlexmarketinsight.com/news-hub/editors-picks/area-of-expertise/antitrust/nokia-daimler-fight-could-stall-licensing-talks-if-lawsuit-goes-to-eu-court>

⁵<https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/11886-EU-competition-rules-on-horizontal-agreements-between-companies-evaluation>

⁶<https://www.bundestag.de/recht#url=L2Rva3VtZW50ZS90ZXh0YXJjaGl2LzIwMjEva3cwOC1wYS1yZWNoC1wYXRlbnRyZWNoC04MjAwODY=&mod=mod539670> ; Katrin Cremer et al, 'Patent Litigation in Europe' (2017) European Journal of Law and Economics 1, 6.

⁷Commission, "Making the most of EU's Innovative Potential: An Intellectual Property Action Plan to Support the EU's Recovery and Resilience," [Communication] COM(2020) 760 final, 14.

⁸ For the questions referred for a preliminary ruling, see, in German, Landgericht Düsseldorf, 'Vorlagebeschluss an den Europäischen Gerichtshof in der patentrechtlichen Verletzungsklage Nokia/Daimler' (Press release, 26 November 2020) <<https://www.lg-duesseldorf.nrw.de/behoerde/presse/Pressemitteilungen-2020/22-20.pdf>>; for an English paraphrase, see Léon Dijkman, 'Breaking: Düsseldorf Court Refers Questions on Component-Level SEP Licensing to CJEU in Nokia/Daimler' (The IPKat, 26 November 2020) <<https://ipkitten.blogspot.com/2020/11/breaking-duesseldorf-court-refers.html> >. In preliminary ruling proceedings, the enlightenment from Luxembourg takes on average 14.4 months, while the eventual Attorney General's opinion intervenes sometime earlier; see

but sometimes they did not even establish majority support (i.e. 3/5 stars). The star-rating system even has the illogical result that some sub-proposals have more support than the main proposal (e.g. proposal 1 with 3.5/5 and 2 with 4/5, proposal 7 with 4/5 and 13 with 4.5/5, proposal 52 with 3.5/5 and 53 with 4.5/5). Two members publicly regretted the lack of common ground, Monica Magnusson inserting a dissenting opinion in the report itself and Damien Geradin posting his observations on SSRN.⁹ As the report itself puts it, one of the *main objectives is to generate ideas for a further debate*.¹⁰

This paper analyses the EG proposed reforms and comments on their suitability in the IoT licensing context. Overall, two major trends could be identified. One is the move towards greater clarity on the SEP landscape by knowing the number of truly essential SEPs, having more detailed and specific SEP disclosure and ensuring stronger validity chances of granted SEPs. The second is the move towards greater collective industry actions – from agreeing on aggregate royalty rates for a standard for different product categories, agreeing on the levels in the supply chains for licensing SEPs to formation of patent pools and implementer licensing platforms. While these are steps in the right direction, the implementation in practice remains contested.

The paper's structure follows the one from the Report. Section 1 sketches the IoT SEP licensing issues that triggered the EG itself. Section 2 deals with SEP transparency proposals, while Section 3 with value chain licensing principles. Sections 4 and 5 review structural reforms on FRAND terms and conditions and on SEP licensing negotiation, respectively. Section 6 addresses patent pools and other collective SEP licensing negotiation proposals. The conclusion sums up the findings and paves the way for future discussion.

Results and discussion

1 Why an Expert Group on SEPs? The IoT FRAND Licensing Chaos

The need for advice from the SEP EG stems from the commendable realisation that licensing of standardised technologies will scramble with the IoT, involving many more SMEs and industries than now. Four factors synthesise the report's shareable premises on the root causes for the foreseeable increasing complexity of SEP licensing: the multiplicity of IoT verticals, the array of IoT-relevant standards, the manifold IoT business models and the lack of SEP-exposure transparency.

First, communication standards once applied in a few personal devices, such as phones, faxes, pagers, computers and tablets, are turning any everyday object into *asmart something* and will evermore find application in every industrial and consumer sector under the sun (i.e., *smart everything*). So far, IoT verticals, namely the value chains whose 'things' become connected and interoperable with anything else, span automotive, agriculture, energy and healthcare industries, among the others. Though licensing demand for the connectivity and interoperability SEPs will skyrocket since such standard technologies have innovation potential for any industry in terms of new products, services and business models.

Second, as the EG correctly notes,¹¹ communication standards are just a small piece of the IoT puzzle. IoT ecosystems also rely on various, at times complementary or alternative, standardised technologies such as those relating to interoperability (e.g., APIs), quality, cyber security, and all the previously developed industry-specific standards. IoT implementers must in-license all intellectual property for any applicable standard.

⁹ Damien Geradin, 'The European Commission's expert group Report on SEP licensing and valuation: What did we achieve? What did we miss?' (2021) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3783710

¹⁰ SEPs Expert Group, *Contributions to the Debate on SEPs* (EC, 2021), 17.

¹¹ SEPs Expert Group, *Contributions to the Debate on SEPs* (EC, 2021), 37-38.

Third, the diversity of IoT verticals' value-chain constituencies disrupts one-size-fits-all SEP licensing customs. During the '90s, within the telecommunication and semiconductor industries, globalisation and economic specialisation added novel R&D-only (fabless) and manufacturing-only (foundries) firm to old-school vertically-integrated firms, both developing their proprietary technologies and selling implementing products. As a result, freedom-to-operate on products markets depend no longer on cross-licensing alone but also on one-way licensing whereby R&D firms are net licensors, and final implementers are net licensees. Now, the IoT brings new business models, such as multisided platforms connecting different customer groups and cloud firms providing software- and analytics-as-a-service, on top of all IoT vertical-specific satellite industries. Where to license SEPs within IoT verticals, therefore where to exhaust patent rights, and how much to charge for it, given the contextual value of SEPs linked to each IoT product, clearly becomes chaotic.¹²

Fourth, the SEP implementers population flooded by SMEs belonging to every IoT vertical, together with any IoT company potentially declaring SEPs to SDOs, fragment the SEP licensing landscape and therein exacerbate transaction costs. The resulting lack of both SEP-exposure transparency and predictability for stakeholders risk escalating into patent and competition law litigation to the detriment of innovation diffusion and R&D investments rewards. In Europe, empirical studies found that SEPs are already more litigated than non-SEPs, Patent-Assertion Entities accounting for most SEP litigation instances.¹³ Opposing SEP-holders and implementers factions undoubtedly welcome policy guidance to smoothen SEP licensing for IoT, though the risk of regulatory capture by either faction looms large.

2 Increasing SEP Licensing Transparency

One of the Commissions' main objectives highlighted in its 2017 Communication on SEPs is to increase transparency on SEP exposure.¹⁴ Current SDO databases of declared SEP are seen as unreliable as they do not convey the full picture of SEP landscape – many declared SEPs turn out to be non-essential due to widespread over-declaration,¹⁵ the use of blanket disclosures clouds the true number of SEP, and the lack of detail in SEP declarations makes it hard to verify their essentiality and the use by potential implementers. The reason for this unclear SEP picture is because SDO databases were primarily designed to be over-inclusive. Over-inclusion facilitates standard development by guaranteeing openness of standards and assuring SDOs and implementers that licences to SEP will be available on FRAND terms. SDO databases were not intended to advance successful licensing negotiations. The current system, therefore, increases transaction costs both to SEP owners and implementers.

The SEP Expert Groups notes that calls for greater transparency regarding the SEP landscape are generally not controversial and are beneficial to both sides. So far, nothing has been done to change the system primarily because of high initial costs of setting up a new system, mutual concerns of SEP owners and implementers that greater transparency could lead to opportunistic behaviour of the other side, and because sophisticated parties have found a way to “muddle through”.¹⁶ However, with the IoT we will expect to see many new

¹²Ibid, 21 and 43.

¹³Ibid, 30-31.

¹⁴ Commission, ‘Setting out the EU Approach to Standard Essential Patents’ COM(2017) 712 final 3-5.

¹⁵SEPs Expert Group Report_35 (noting the average essentiality ratio between 25-40%). This is confirmed by studies, Cyber Creative Institute, Evaluation of LTE Essential Patents Declared at ETSI (2013) (56% of sampled 4G LTE SEP were truly essential); Amplified, GreyB, ‘Exploration of 5G Standards and Preliminary Findings on Essentiality’ (2020) (19%-34% essentiality ratio for 5G SEPs per different company). Court cases also confirm that many declared SEPs are not truly essential with essentiality rates between 26% to 39% see *Unwired Planet v Huawei* [2017] EWHC 2988 (Pat) and *TCL v Ericsson*, 2017 WL 6611635 (C.D. Cal. 2017).

¹⁶SEPs Expert Group Report, 48.

standard implements using different business models and lacking a deep understanding of connectivity standards and SEP licensing, thus intensifying licensing disputes and transaction costs related to unclear SEP landscape. The SEP Expert Group makes three large proposals: i) improving SEP declarations, ii) introducing essentiality checks and iii) increasing the likelihood that SEP will be found valid in court.¹⁷

2.1 SEP disclosures

The main idea is to incentivise specific SEP declarations and require SDOs to offer a platform for posting additional information regarding declared SEPs.¹⁸ Specific declarations should identify individual patents, or preferably patent claims, that are believed to be essential, as well as an explanation of standards or parts or standards where SEPs read on. Blanket disclosures would be reserved only for early stages in the standardisation process, while specific disclosure would be required at a later stage once the information on the scope of the final standard and granted patents becomes available. Next, SDOs should offer SEP owners a platform to provide additional and updated information regarding their declared SEPs. Such platform can include information on whether the SEP owner continues to believe that patent is essential, the results of essentiality evaluation, court rulings regarding validity and essentiality, the information on the outcome of patent application and the information on patent's expiry.¹⁹

While these proposals will certainly make the SEP landscape more transparent and will spur future SEP licensing, the main obstacle is the costs of implementation that will primarily fall on SEP owners. They would have to initiate lengthy patent searches of their portfolios to identify individual patents and parts of standard they relate to and continuously provide such information for different future standard releases. Also, further clarifications are required on when is the cut-off date to make specific disclosure and what happens if some SEPs are not disclosed in time? A study for the European Parliament recommends requiring undisclosed SEPs to be licensed royalty-free.²⁰ Such a recommendation displaces para 286 of the EC's horizontal-cooperation guidelines, according to which SEP declaration obligations are fungible for the design of SDOs' IPR policies with royalty-free licensing commitments, and it would be unduly harsh to SEP owners, clearly disincentivising participation by vertically-disintegrated R&D firms in European SDOs. Standard implementers are already protected by a blanket commitment to license any SEPs on FRAND terms, and adding a royalty-free penalty on SEP owners may tilt the balance too much in the opposite direction. Moreover, the SEP database would include information that will be available only late in the standardisation process, after the standard has been approved and possible licensing contract concluded, casting doubt on the usability of such an additional database.²¹ There is also concern that some SEP owners may submit biased and unreliable information.²² Therefore, a balancing exercise needs to be undertaken before implementation to assess whether the costs do not outweigh the benefits and risk European SDOs becoming less attractive than other SDOs, which might shift innovation and standardisation away from Europe toward less regulated non-EU SDOs.

Rather than putting the SEP transparency burden on SDO databases, the EC could venture whether better-funded patent offices could chip in. To date, patent offices have official registers that record legal events on their patents and applications, as well as databases (bi-

¹⁷ Ibid, 49.

¹⁸ Ibid, 50-52.

¹⁹ Ibid, 52-53.

²⁰ Luke McDonagh and Enrico Bonadio, 'Standard Essential Patents and the Internet of Things' (2019) 7.

²¹ SEPs Expert Group Report, 54.

²² Ibid.

annually published PatStat) and web portals (ESPACENET) that are vastly more sophisticated, speedy and reliable than SDOs' offerings. Patent office's already monetise their patent data products with annual subscription fees. Reductions of patent renewal fees could incentivise SEP-holders to supply information to patent offices, as foreseen for Unitary patents.

2.2 Essentiality checks

The SEP Expert Group recommends introducing independent essentiality checks for those SEPs that SEP owner intends to commercialise.²³ The SEP EG's proposals seem largely in line with a separate Commission's study on essentiality checks for SEPs.²⁴ Essentiality checks would resolve the over-declaration problem and convey an accurate picture of truly essential patents, resulting in smoother licensing negotiations as it would provide a better estimate of the size and value and of SEP owner's portfolio. Ideally, essentiality check should be done as quickly as possible after the approval of a standard and before a SEP owner starts licensing its SEPs. To lower the costs, which are estimated on average to be at least EUR 4,000-5,000 per patent,²⁵ but could go as high as EUR 10,000 per patent,²⁶ the SEP owner need not test its whole declared SEP portfolio but only those SEP it believes are still essential at the time of the adoption of the final version of the standard (the estimate is that the SEP owner would filter out 60%-75% of declared SEP by himself) and then only one patent per patent family in a major market country.²⁷ Such limitations should make essentiality tests more affordable and usable by SEP owners. Patent offices are seen as the preferred bodies to perform essentiality checks or, in the alternative, a supervised network of certified European patent law firms could be used. If possible, essentiality check could also indicate the type of invention that SEP covers (i.e. 'fundamental', 'key') which could be used to assess the underlying value of SEPs better. Finally, SEP owners could submit essentiality confirmation and relevant claim charts to be recorded in SDO SEP databases.²⁸

Some more controversial measures also suggested with the aim to incentivise the use of independent essentiality procedure. One option is to allow SEP owners to demand royalties only for confirmed essential SEPs from the date the SEPs were submitted for essentiality checks or, alternatively, allow substantially reduced royalties until SEPs are submitted for essentiality test.²⁹ However, precluding royalties on untested SEP would go against, TRIPS the IPR Enforcement Directive and national patent laws, which provide patent remedies, including damages, to any patent that is proven valid and infringed by the court. Additionally, a fast-track third-party essentiality challenge procedure was considered to be introduced.³⁰ The idea is to incentivise third parties to use this faster process, anticipated to last no longer than six months, instead of lengthy and expensive litigation. In order not to discourage SEP owners from using the essentiality process further compensation to SEP owners could be provided if the implementer did not use the essentiality fast track procedure and later loses on essentiality grounds before court, and challenges for all or a substantial number of SEPs of one SEP owner should be prevented. However, while a third-party challenge procedure sounds good in theory as an alternative to litigation, it has a great potential for misuse, imposing additional delays and costs to licensing. Namely, there is nothing to stop implementers from using both this and court procedures to further to stall

²³ Ibid, 56.

²⁴ R Bekkers et al, 'Pilot Study for Essentiality Assessment of Standard Essential Patents' (2020).

²⁵ SEPs Expert Group Report, 61.

²⁶ R Bekkers et al, 'Pilot Study for Essentiality Assessment of Standard Essential Patents' (2020) 15.

²⁷ SEPs Expert Group Report, 56, 59.

²⁸ Ibid, 65.

²⁹ Ibid, 66

³⁰ Ibid, 67.

negotiations, and it is unclear how to prevent challenges to the whole or large part SEP owner's portfolio.

Overall, the idea of having some form of voluntary essentiality test sounds reasonable and could be a valuable mechanism to increase the transparency of SEP landscape, facilitating licensing negotiations. However, we should be cautious with its implementation, not to impose unreasonably high costs to SEP owners and provide recalcitrant implementers with another venue for delaying negotiations. Thus, any essentiality mechanism should remain strictly voluntary and available to those SEP owners that intend to monetise SEPs.

2.3 Validity

The last set of proposals relates to increasing the chances of SEP's validity. One proposal requires SDOs to use existing ETSI's example of making draft standards, written contributions, studies and other submissions to SDOs in standard development process available to patent offices to be identified more easily as prior art in patent examination.³¹ For example, the EPO, on top of being an ETSI member since 2003, has memoranda of understanding providing for information sharing and linking of patents and SDO databases with ETSI, IEEE-SA, ITU and IEC, among the others.³² Proposals to enhance cooperation between SDOs and patent offices have received wide support within the SEP Expert Group and indeed represent a simple measure that would significantly strengthen the validity of granted patents.

Other proposals, however, are more contentious. One that did not appear to have received large support is for SDOs to encourage their members to use opposition proceedings before patent offices to oppose the granting of potential SEPs.³³ The concern is that the collaborative atmosphere within SDO members would be affected, discouraging members from contributing their technologies to standardisation. Furthermore, private ordering solutions to challenging invalid SEPs already exist, Unified Patents being a prominent US example that since 2020 has also ventured EPO oppositions on behalf of its clients.³⁴

Another suggestion is to introduce fast-track third-party validity challenge procedure before arbitration panels.³⁵ Like proposed third-party essentiality challenge, this option is intended to provide a cheaper and faster alternative to lengthy and costly court challenges, which often span multiple jurisdictions. However, arbitration also carries a great potential for misuse, as the validity of a patent can only ultimately be resolved by a court, and the new procedure may add another venue for delaying licensing. Even if arbitral awards would be binding before parties (which is not a given unless parties agree to arbitration), every most prominent European patent litigation venue recognises that patent validity determinations by arbitration have only inter-partes effect, meaning that they are not binding on other implementers who can still challenge the same patent before courts. Therefore, the SEP validity arbitration should remain a strictly voluntary option to parties that genuinely accept to use this process instead of courts, mandating its use might turn into another venue for hold-out.

3 Value Chain Licensing

The SEP Expert Group Report has a dedicated section on where to license in the supply chain, which became central in the recent SEP litigation. Tensions arise from a clash of

³¹ Ibid, 70.

³² Niccolo Galli, Standard Essential Patents Litigation and Abuse of a Dominant Position: The FRAND Defense in the EU Competition Law Context (Master Thesis University of Florence, 2016), 145-146.

³³ SEPs Expert Group Report, 72.

³⁴ https://www.unifiedpatents.com/search?q=EPO&f_collectionId=5709e539ab48de716450c0ea

³⁵ SEPs Expert Group Report, 73.

different IoT industry practices - in the telecommunication industry the prevailing practice is to license at the end-device level, while in the automotive industry licensing is done at a component level where it is customary to obtain components clear of all third-party rights. In the recent SEP disputes in Germany, Nokia, Sharp and Conversant sued Daimler for SEP infringement and obtained injunctions after Daimler refused to take a licence and pointed to its suppliers as the appropriate licensee.³⁶ As a retaliation, Daimler and its component supplier Continental complained to the European Commission that Nokia's practice of licensing SEPs only to car manufacturers and refusing to license component makers is anti-competitive.³⁷ Recently, the Dusseldorf Regional Court referred to the ECJ the question of the compatibility of Nokia's practice of licensing SEPs only to car manufacturers with Article 102 TFEU.³⁸

Against his background, the SEP Expert Group proposes three guiding principles for finding a solution to the question of where to license in the supply chain: i) licensing at a single level in the value chain for a particular product or application; ii) a uniform FRAND royalty for a particular product irrespective of the level of licensing; iii) FRAND royalty is a cost element in the price of a non-finished product (component) and should be passed on downstream.³⁹ These are sound principles that recognise the efficiencies of licensing only at a single point in the production chain and the fact that royalty should not vary depending on where the SEP is licensed in the value chain. The main argument for component-level licensing is to drive down royalties by capping them at a fraction of current profit margins of unlicensed components, which does not reflect the true value that standardised technology brings to end-products and consumers. For example, assuming the aggregate royalty for cellular standards to be \$15,⁴⁰ the royalty can easily exceed current profit margins or even the price of unlicensed components. Thus principles correctly recognise that the price of the IP is an input cost that ultimately needs to be passed on further downstream, making it price-wise irrelevant whether a component or end-device manufacturer pays a royalty.

The implementation of principles is left to collective negotiations between SEP owners and implementers before an independent facilitating body (that can be a body formed specifically for that purpose, or existing licensing administrators or SDOs).⁴¹ It is first suggested that SEP owners internally agree on where they would like to license in the value chain and then hold discussion with implementers to agree on the proposal. The novelty is the recognition that collective negotiations, in this case, should be permitted by antitrust rules going a step further than the acceptance by para. 299 of the EC's horizontal-cooperation guidelines of ex ante disclosures of most restrictive licensing terms by SEP holders. Importantly, the report does not bind or represent the view of the EC and it is also external to the work of DG COMP, the EC department responsible for competition law enforcement, which simply attended most EG meetings. Leaving a fragmented landscape where different SEP owners would license at different supply chain levels will cause tensions, litigation and inefficiencies to implementers that cannot plan their licensing costs. Ideally, an agreement

³⁶ District Court of Mannheim, 2 0 34/19 *Nokia v Daimler* (18 August 2020); Mathieu Klos, 'Setback for Daimler in Connected Cars Dispute Against Avanci Pool Members' (11 September 2020) *JUVE Patent*; Konstanze Richter, 'Daimler Loses to Conversant Over Connected Cars SEP' (28 October 2020) *JUVE Patent*.

³⁷ See Foo Yun Chee, 'Continental, Valeo seek EU antitrust action against Nokia' (17 April 2019) *Reuters*; Scott Graham, 'Nokia, Daimler, Continental Ramp up global patent chess match' (14 June 2019) *Law.com*.

³⁸ Regional Court Dusseldorf, 'Order for Reference to the European Court of Justice in the Patent Infringement Suit Nokia/Daimler' [Press Release] (26.11.2020).

³⁹ SEPs Expert Group Report, 84-85.

⁴⁰ Which is not unrealistic, patent pool Avanci gathering the largest cellular SEP portfolio charges \$15 per connected car. See <https://www.avanci.com/marketplace/#li-pricing>

⁴¹ SEPs Expert Group Report, 86-88.

should be reached, but if it fails, a hope is that the large number of SEP owners will follow an agreed licensing position which may pressure other companies to accept the outcome.

There are further recommendations on how to facilitate the implementation of value chain licensing models. If licensing at the end-product level is adopted, component manufacturers need to be sufficiently protected to produce their components lawfully. A novel proposal is to grant component suppliers royalty-free licences that are dependent on the existence and payment of a downstream licence.⁴² This would prevent exhaustion on the downstream level as upstream licences are dependent on downstream ones and would, at the same time, provide legal certainty to component makers. The applicability of this proposal would need to be further clarified by the Commission. On the other hand, if licensing at a component level is adopted, SEP owners should be allowed to charge different royalties for different downstream applications reflecting the SEP value contributed to final products. A radical option is to change patent laws to provide field-of-use specific exhaustion, so licensing at a component level would not automatically lead to an exhaustion with respect to all downstream uses.⁴³ More practical suggestions are to use various technical measures, such as software codes, enabling the component to be used in a particular type on end-product. This would permit easier tracking of which component goes to what end-product and allow differential pricing. Alternatively, SEP owners could charge different royalties depending on connectivity rates if chips for different applications use different connectivity rates.⁴⁴

Overall, the value chain licensing principles are sound and represent a move in the right direction. Of course, the implementation remains problematic, but the recognition of the benefits of collective negotiations and industry-wide agreement on licensing levels and principles might lead to optimal solutions. Any collective licensing negotiations need to be first endorsed by the Commission from the perspective of competition law.

4 Clarifying FRAND terms

With respect to FRAND terms and conditions, the SEP Expert Group aims to introduce more transparency into the aggregate price of the standard. Currently, the overall price of connectivity standards is unknown, each SEP owner is responsible for individually licensing and enforcing its SEPs. This creates tensions as implementers cannot plan in advance the cost of IP and leads to disputes over the reasonableness of SEP owners' individual royalties.

Some unilateral and collective measures by SEP owners are considered to increase clarity on the aggregate price of the standard. First, SEP owners could unilaterally announce their most restricting licensing terms, preferably before the standard is set, and declare their views on the reasonable aggregate royalty got standard.⁴⁵ However, the ex-ante announcements of most restrictive licensing terms are nothing new, the idea has been around for years,⁴⁶ even endorsed by the EC in its horizontal-cooperation guidelines, and many companies are already posting their maximum prices.⁴⁷ The problem with unilateral price announcements is that it is

⁴² Ibid, 92.

⁴³ Ibid, 93.

⁴⁴ Ibid, 94.

⁴⁵ Ibid, 101.

⁴⁶ See See Gil Ohana, Marc Hansen, Omar Shah, 'Disclosure and Negotiation of Licensing Terms Prior to Adoption of Industry Standards: Preventing Another Patent Ambush?' (2003) 24 *European Competition Law Review* 648; Robert Skitol, 'Concerted Buying Power: Its Potential for Addressing the Patent Hold-up Problem in Standard Setting' (2005) 72 *Antitrust Law Journal* 727; Mark Lemley, 'Ten Things to Do About Patent Holdup and Standards (and One Not To)' (2007) 48 *Boston College Law Review* 149; US Department of Justice and the Federal Trade Commission, *Antitrust Enforcement of Intellectual Property Rights: Promoting Innovation and Competition* (2007) 49-50.

⁴⁷ For example for 5G, Ericsson announced that it would license its 5G SEP portfolio between \$2.5 and \$5 per device, Nokia up to EUR 3 per device, up to \$1.2 for Interdigital, 3.25% of the end-device price by Qualcomm. See Eric Stasik, David Cohen, 'Royalty Rates and Licensing Strategies for Essential Patents on 5G

impossible to precisely estimate ex-ante the value that the standard will bring to different devices and applications. To be on the safe side, companies would simply announce the maximum possible rate, but in practice, these maximum prices will not be used and concrete licensing offers will be made once more information on the standard and downstream products is known.⁴⁸ Thus having mandatory ex ante maximum price announcement would not add anything useful to SEP licensing. Additionally, unilateral views on a standard's aggregate royalty will not provide a clear picture to standard implementers. For example, consider if one SEP owner announces an aggregate rate of \$10 per product, other 5% of end-product price, while a third SEP owner would prefer a lower \$1 per rate product. Implementers would still be left with unclear and conflicting information on standard's aggregate price.

Recognising these shortcomings, the SEP expert group also considers a collective action where SEP owners would agree on a reasonable aggregate royalty for a standard for different product categories.⁴⁹ The proposed aggregate royalty would then be reviewed together with implementers. This would be a better option than unilateral announcements, as it provides an agreed price of the standard that implementer can take into account in their business plans and enables better estimation of the value of individual SEP portfolios. However, a collective price-setting needs to be endorsed by competition authorities, to whom the SEP Expert Group suggest a more lenient attitude via-à-vis industry-wide price negotiations. Nevertheless, the implementation of joint price negotiations must include appropriate competition safeguards. Implementers may act as buyers cartel and collectively exert anti-competitive pressure to depress royalties below a reasonable level.⁵⁰ While implementers should be consulted about the reasonableness of standard's aggregate price, the final pricing decision might better be left to SEP owners.

Finally, the SEP Expert Group tries to clarify the non-discrimination requirement of FRAND commitment. It noted the well-established principle that ND does not mean that SEP owner must offer same terms to all (so-called hard-edged non-discrimination), but it requires the SEP owner to treat similarly situated licensees similarly (so-called general or soft-hedged non-discrimination). The Report brings much-needed clarity by listing some practice that are not seen as discriminatory, such as volume discounts, annual royalty caps, agreeing on lump sum payments instead of running royalties, giving preferential terms to incentivise licensing (early bird discounts) and selective enforcement of patents, unless there is clear anti-competitive intent.⁵¹

Telecommunication Standards: What to Expect' (2020) *les Nouvelles* 176.

⁴⁸ Based on early announcements by nine SEP owners, an aggregate royalty burden for 4G LTE standard consisted of 14.8% of the end-product price, but in practice it seem that the cumulative SEP royalty yield is only 3.4% of the smartphone's average selling price, see Erik Stasik, 'Royalty Rates and Licensing Strategies for Essential Patents on LTE (4G) Telecommunications Standards' (2010) *Les Nouvelles* 114; Alexander Galetovic, Stephen Haber, Lew Zaretzki, 'An Estimate of the Average Cumulative Royalty Yield in the World Mobile Phone Industry: Theory, Measurement and Results' (2018) 42 *Telecommunications Policy* 263). Also Jorge Contreras, 'Technical Standards and Ex Ante Disclosure: Results and Analysis of an Empirical Study' (2013) 53 *Jurimetrics* 163, 178-179 (illustrating how the Next Generation Mobile Network consortium required members to disclose their maximum SEP royalty rates and for some standards the aggregate royalty rate was 130% of the relevant product price).

⁴⁹SEPs Expert Group Report, 105-107.

⁵⁰ Gregory Sidak, 'Patent Holdup and Oligopsonistic Collusion in Standard-Setting Organizations' (2009) 5 *Journal of Competition Law & Economics* 123; Richard Gilbert, 'Deal or No Deal? Licensing Negotiations in Standard Setting Organizations' (2011) 77 *Antitrust Law Journal* 855, 866-68; Anne Layne-Farrar, Gerard Llobet, Jorge Padilla, 'Preventing Patent Hold Up: An Economic Assessment of Ex Ante Licensing Negotiations in Standard Setting' (2009) 37 *AIPLA Quarterly Journal* 445.

⁵¹SEPs Expert Group Report, 118-119.

The Report suggests some principles to promote non-discriminatory licensing, acknowledging that all provisions of a license contribute to define the value exchanged by the parties. It recommends SEP owners to make and publish standard licensing offers available to all potential licensees, and disclose a list of SEPs and the information on existing licensees, if confidentiality obligations permit.⁵² Accepting these principles would go a long way in making SEP licensing market more transparent and resolving disputes where implementers claim they are being offered discriminatory terms. Indeed, there is no reason to keep draft licensing terms secret – other than SEP holders thriving on information asymmetries. Especially in the IoT where mass SEP licensing is anticipated, both implementers and SEP owner would benefit in having published standard SEP licensing terms.

Additional measures were also proposed. The establishment a confidential repository of SEP licensing agreements received wide acceptance.⁵³ The repository would be accessed only by courts, competition authorities, arbitrators or trusted persons for verifying the compliance with ND requirement. The report also suggests a methodology to assess the compliance with ND obligation where key terms and conditions of compared licence will be benchmarked against all other licensing agreements with similarly situated licensees. However, much of the problem with the compliance with ND obligation would disappear if SEP owners would simply publish their standard licensing offers. Offering the same standard licensing offer to all similarly situated licensees would dispense with ND obligation.⁵⁴ In individual negotiations royalty may be adjusted downwards, but no implementer would be offered harsher terms than those provided in the standard offer.

5 Smoother Conclusion of FRAND Licenses (Negotiations and Disputes): Punishment and Repentance

The report recognises that bilateral FRAND licenses require complex negotiation over standard-essentiality, patent validity, the scope licensed products (i.e. infringement), the consideration due through monetary and non-monetary means, and the compliance of the license with FRAND commitments.⁵⁵ Expanding the *Huawei/ZTE* framework, several proposals aim for a smoother conclusion of FRAND licenses and resolution of their disputes striving to impose good faith obligations on both SEP-holders and implementers. A proportionality rationale between SEP-holders' diligence in demonstrating standard-essentiality plus disclosing draft licenses and implementers' pro-activeness in seeking licenses underlies most proposals.

The overarching structural reform, endorsed by a scarce majority of EG members, is a commission-led co-regulation framework that facilitates the conclusion of IoT licenses putting the most burden on SEP holders.⁵⁶ Albeit the reform itself concedes that *it is hard to give more detail as to exactly how to do this*,⁵⁷ in practice, the Commission should induce global commitments by major SEP holders to publish more licensing information across multiple standards, provide more in depth patent data under NDA and abide by dispute resolution mechanisms tailored to IoT licensing. The proposal stretches the territorial reach

⁵² Ibid 120.

⁵³ Ibid 121.

⁵⁴ A view shared by the UK Supreme Court in *Unwired Planet v Huawei* 114 [2020] UKSC 37 (“the terms and conditions on offer should be such as are generally available as a fair market price for any market participant, to reflect the true value of the SEPs to which the licence relates and without adjustment depending on the individual characteristics of a particular market participant. Put another way, there is to be a single royalty price list available to all.”).

⁵⁵ Niccolò Galli, ‘Patent Aggregation in Europe: The Spotlight on Patent Licensing by Patent Aggregators’ (2020) EIPIN-IS Research Paper no. 20-03, 4-7.

⁵⁶ SEPs Expert Group Report, 123.

⁵⁷ Ibid.

of the Commission-led co-regulation beyond the EU, while the Commission would spot bad market players because either SEP holders do not commit to the Commission's principles or implementers do not comply with them. Despite the vagueness of such an overarching structural reform, it might turn out to be feasible since the EC, through its antitrust branch, has already obtained voluntary licensing commitments by SEP holders.⁵⁸ However, any EC's effort to agree with all stakeholders suitable and effective IoT-vertical-specific licensing frameworks might be in vain if it does not precede the CJEU ruling in the *Nokia/Daimler* case or at least the Advocate General's desirable opinion.

After the overarching reform, the proposals address SEP holders' negotiating behaviour, which under the Huawei/ZTE framework must make the first FRAND negotiation move and not exploit the surprise effect of preliminary injunctions. The EG suggests that without the need of an NDA, SEP holders must provide their assertion targets with both detailed machine-readable lists of all to-be-licensed patents, evidence of standard-essentiality documents for at least a representative sample of SEPs and inventories of already licensed implementers without infringing confidentiality obligations.⁵⁹ More specific claim charts of at least a sample of SEPs, evidencing their infringement, should become available under NDAs, conceding that such documents are costly to prepare and in the wrong hands could backfire against the SEP holder.⁶⁰ Such a property notice burden seems reasonable and proportional. On the one hand, patent data are in any case public on patent offices' official registers, evidence of standard-essentiality documents often ground previously-made standard-essentiality declarations and lists of existing licensees determine implementers' need and urge of closing a license. On the other hand, the two-tiered nature of SEP holders' information provision accommodates both situations where implementers are cooperative and sign NDAs and situations whereby implementers' contracts with suppliers preclude them from signing NDAs. Perhaps, it is puzzling what the proposals add to current SEP licensing customs.

Then the EG focuses on implementers' pro-active negotiation behaviour, though leaving it open the fundamental question of which implementers within IoT verticals should engage in negotiations and licensing. The departure point acknowledges that under *Huawei/ZTE*, implementers can wait and see (read infringe) until SEP holders make their first FRAND move and have no incentive to take a license beforehand. Such a circumstance tilts the level playing field not just for implementers, as the report states, but also for SEP holders. The EG notes that until SEP holders' first move, implementers might inadvertently accumulate past due royalties from the commercialisation of their standard-compliant products until the conclusion of a license, which may also distort downstream competition among licensed implementers and infringers.⁶¹ The EG forgets that SEP holders, especially those without a foothold on standard-compliant product markets, often have no means of assessing their SEPs' implementation and even if they do, they might lack enforcement capabilities and resources. To resolve the first move issue, the Commission or an EU reform, could require implementers to seek SEP licenses pro-actively prior to product commercialisation from *diligent* SEP holders, under penalty of being considered holding-out infringers, paying a higher than FRAND royalty for past unlicensed use and risking patent infringement

⁵⁸ Commission, Press Release 10 December 2009 MEMO/09/549, Case COMP/39615 ICom; Rambus (Case COMP/38.636) Commission Decision 9 December 2009 (Summary 2010/C 30/09 OJ C/30/17) [2009]; Google/Motorola Mobility (Case COMP/M.6381) Commission Decision 13 February 2012 (C(2012)1068) OJ C75/1; Mario Mariniello, 'Fair, Reasonable and Non-Discriminatory (FRAND) Terms: A Challenge for Competition Authorities' (2011) 7(3) Journal of Competition Law and Economics 523, 524-525.

⁵⁹ SEPs Expert Group Report, 125-126.

⁶⁰ Ibid, 126.

⁶¹ Ibid, 126-127.

remedies.⁶²In this sense, diligent SEP holders benefitting of implementers' pro-activeness would be just those who publish their draft licenses and either comply with the proposed enhanced SDOs' disclosure and database transparency obligations or publish claim charts of essentiality-checked SEPs.⁶³ Making such information public would qualify as putting all implementers on notice, shifting the FRAND negotiation burden to them.⁶⁴

The EG then goes a step further in implementers' pro-activeness and suggests that if SEP holders do not publish draft contracts, implementers must be obliged to record standard-compliant products in SDOs' databases. In turn, just essentiality-checked SEP-holders would access such recordings.⁶⁵ Again the penalty for non-compliant implementers would be a higher than-FRAND royalty for past unlicensed use that should not be passed on along the value chain like a normal FRAND royalty.⁶⁶ It is difficult to see how such a recording obligation would be administrable in the IoT, with myriads of implementers of even the smallest size and manifold business models.

The reforms on SEP disputes overall aim at re-establishing implementers' incentives to seek FRAND licenses without the need for SEP-holders' first enforcement move while discouraging SEP-holders' strategic negotiation tactics. On the one hand, courts should impose a penalty on top of FRAND royalties for holding-out implementers, evidenced by delayed response to license offers or consciously initiating declaratory litigation on standard-essentiality, validity or non-infringement against litigation-tested patents.⁶⁷ Further, in case of a Mexican stand-off between rejected FRAND offer and counteroffer not triggering arbitration, implementers should start paying into escrow at least their FRAND counteroffer.⁶⁸ Implementers' obligation to behave as if licensed goes back to the 2009 *Orange-Book* German case law and is a good tool to prevent intentional holdout strategies. The *Huawei/ZTE* minimum requirement of implementers' security deposit for past acts of use just preserves SEP holders' interest for damages compensation and allows implementers to impair the future conclusion of a FRAND license after a final court adjudication.⁶⁹ On the other hand, courts finding that SEP-holders engaged in bad-faith negotiation tactics should award diligent licensees a FRAND royalty discount for both past un-licensed use and time-limited licensed use. In this sense, far-reaching NDAs, refusal to provide patent lists and claim charts, no royalty formula specification and no grounds for rejecting the FRAND counteroffer would prove SEP-holders' bad faith.⁷⁰

Taking inspiration from the German competition case-law on utility service providers, a scarce majority of the EG also proposes that courts in front of a FRAND royalty range of offer and counteroffer, solve the rebus by picking through their independent experts the royalty closer to the weighted mean value between the parties' FRAND royalty rates. As a second-best solution, adjudicating courts should pick the mean royalty rate itself whether both parties' FRAND royalty rates deviate by more than 3% from it.⁷¹ Clearly, the proposal downplays the non-price value exchanged through FRAND licenses. Moreover, it also exacerbates the prisoner's dilemma setting of FRAND negotiations, whereby the opposing

⁶²Ibid, 127-128. Proposal 66 superfluously asks to clarify that under the *Huawei/ZTE* framework, SEP holders can get injunctions lawfully if implementers do not sufficiently rebut their FRAND offers nor make FRAND counteroffers.

⁶³SEPs Expert Group Report, 129-130.

⁶⁴Ibid, 131.

⁶⁵Ibid, 132-133.

⁶⁶Ibid, 133.

⁶⁷Ibid, 134-135.

⁶⁸Ibid, 136.

⁶⁹Ibid, 131.

⁷⁰Ibid, 136.

⁷¹Ibid, 137-138.

rational SEP-holder and implementer acting in their self-interest ensure a negative outcome for both by betraying each other.⁷² Expecting that the court will ultimately ‘split the baby’, the parties have no incentive to make a reasonable offer that will be inevitably discarded. Thus, the escalation of the prisoner’s dilemma would make both patent hold-up and hold-out systemic and, most importantly, jeopardise trust in the patent system and standardisation as fundamental pillars of the open innovation paradigm. The side effect of imposing courts to pick the mean value of a FRAND range could be directing reasonable SEP holders and implementers towards alternative dispute resolution avenues.

Always on litigation, a strong majority of the EG advances that EU regulations should set up new tools to ease FRAND dispute resolution. First, an ad hoc market transparency office should maintain a confidential repository of SEP licenses for use in FRAND disputes by courts, competition authorities and ADR boards.⁷³ Perhaps, the proponents had in mind something similar to the EUIPO European Observatory on the enforcement of intellectual property rights, which since 2009 provides data, tools and databases to support IP infringement countermeasures. Second, alternative dispute resolution service providers or the EUIPO should host new independent expert boards specifically established to determine FRAND royalties.⁷⁴ From the report, it is not easy to see how the new FRAND independent expert boards differentiate from commonly appointed independent court experts or current expert adjudication procedures of ADR-service providers.

Finally, the EG calls for more ADRs for FRAND licensing disputes, throwing out two proposals at the end of the dispute section. On the one hand, a specialised FRAND mediation institute should be created, though not specifying by whom.⁷⁵ On the other hand, parties to FRAND licenses should always submit their breach of contract issues to expedited arbitration,⁷⁶ as if license parties do not already assess such an opportunity in the customary compromissory clauses. Surprisingly, the two reforms do not even mention that WIPO already has FRAND-specific alternative dispute resolution rules and that any adjudicator can freely use the FRAND ADR Case Management Guidelines by the Munich IP Dispute Resolution Forum. Equally overlooked are existing arbitration clauses in SDOs’ by-laws such as those of DVB Project, Blue-Ray Association and VITA.⁷⁷

6 Joint Licensing Actions for the IoT

After a comprehensive overview of patent pools’ functioning the last set of proposals advance collective mechanisms to solve SEP licensing issues.⁷⁸ In brief, the EG recognises that the IoT needs patent pools and similar joint initiatives to overcome the transaction costs of licensing in the IoT.⁷⁹ At least initially, patent pools offer a better IoT freedom-to-operate proposition than cross-licensing since SEPs become general-purpose technologies applicable beyond their industry of origin and used by different business models with a removed technology background.⁸⁰

⁷² Joseph Siino, ‘Escaping the prisoner’s dilemma: towards a new transparency in patent licensing’ (July/August 2017) 84 *Intellectual Asset Management* 58, 64.

⁷³ SEPs Expert Group Report, 144.

⁷⁴ *Ibid.*, 145-146.

⁷⁵ *Ibid.*, 147-148.

⁷⁶ *Ibid.*, 148.

⁷⁷ Jorge Contreras and David Newman, ‘Developing a Framework for Arbitrating Standards-Essential Patent Disputes’ (2014) *Journal of Dispute Resolution* 23, 47-49.

⁷⁸ SEPs Expert Group Report, 150-157.

⁷⁹ *Ibid.*, 158-161.

⁸⁰ *Ibid.*, 157-158 and 160.

The first suggestion is that EC guidelines or a communication induce SDOs to foster the external formation of patent pools already during the final phase of standardisation.⁸¹The independence of SDOs from the patent pools reassures antitrust hub-and-spoke collusion concerns and ensures that licensing negotiation do not delay standardisation. Anticipating pool formation before the standard adoption realigns the commercialisation of standard-implementing products with the availability of a license for the relevant SEPs, avoids past-due royalties for un-licensed use and clears uncertainties over a reasonable estimate of the aggregate FRAND royalty burden. The example SDOs should follow is DVB, a consortium developing digital TV standards, which fosters voluntary, yet external, joint licensing programmes. The DVB FRAND IPR policy foresees that within two years after adopting a specification, at least 70% of all relevant SEP holders must establish a patent pool or disputes between DVB members are subject to mandatory arbitration.⁸²As of February 2021, Sisvel acts as patent pool administrator for seven DVB standard specifications.⁸³ More engagement by SDOs for the smooth uptake of their IoT standards is welcome, as evidenced by the alleged interaction on the issue between ETSI and DVB, as declared by an ETSI representative during the first DG GROW online seminar after the publication of the SEP EG report. The desirable forthcoming revision of the Art. 101 TFEU horizontal cooperation guidelines comes handy for the EC to foster SDOs' patent pool fostering.

It is less feasible to amend national patent laws to provide non-exclusive patent licensees with full infringement standing. In fact, patent pools mostly aggregate SEP portfolios through non-exclusive licenses with sublicensing rights, which preserves pool contributors' independent licensing rights yet precludes patent pools from suing infringers directly. On top of the legislative hurdles to change national patent laws and rules of civil procedure, the antitrust concerns are high against patent pools acting as the litigation hub on behalf of colluding SEP-holders spokes.⁸⁴Furthermore, patent pools already employ private ordering solutions to ease the collective action problems of pool members' individual infringement actions that antitrust agencies did not challenge in the most recent occasions. The US Department of Justice, when reviewing the proposed formation of the Avanci 5G patent pool, did not question either the fact that enforcement support by individual pool members against unwilling licensees counts for the pool royalty distribution scheme nor that Avanci reimburses litigation costs if sued infringers sign pool licenses.⁸⁵The US DOJ, even disavowed the long-standing requirement of pool members' retention of independent licensing rights for the University Technology Licensing Program, which is the first non-SEP patent pool that exclusively in-licenses the pooled patents and enforces them though upon the individual patent owner's determination.⁸⁶

As the ultimate solution the EG considered establishing a pool of pools that would aggregate and license in one package all standards for a particular product category, like the One-Blue pool which licenses different standards for Blu-ray disks players and recorders.⁸⁷The suggestion is ambitious since it would increase licensing transaction-cost savings yet much to be desired. . In fact, patent pools have rarely succeeded gathering all

⁸¹Ibid, 162.

⁸²Ibid, 163.

⁸³<https://dvb.org/about/policies-procedures/licensing-programmes/>

⁸⁴SEPs Expert Group Report, 177-178.

⁸⁵Mark Hamer, 'Letter of Request for Business Review of Avanci's Proposed 5G Patent Platform for Connected Transportation Vehicles' (21 November 2019), 6; MakanDelrahim, 'Letter to Mark Hamer: Avanci Business Review Letter' (28 July 2020), 6.

⁸⁶Micheal Murray, 'Letter to Garrard Beeney: UTLP Business Review Letter' (13 January 2021), 9; Garrard Beeney, 'Letter of Request for Business Review of University Technology Licensing Program' (14 August 2020), 7.

⁸⁷SEPs Expert Group Report, 173-174.

relevant SEP holders even for individual standards, sometimes even competing over the same standards and always coexisting with some degree of external SEP licensing. It remains to be seen if the IoT will bring greater convergence among SEP owners towards larger pool solutions.

Until patent pools are established, the EG considered that a public agency may grant SEP licenses. Such SEP licensing agency would resemble a copyright collective management organisation being mandatory for SEP holders.⁸⁸ Perhaps, the geopolitical difficulty of implementing a SEP licensing agency in at least the medium term, the scepticism against an additional regulatory layer for already complex standardisation or collective management organisations' many challenges made the proposal one of the least supported by the EG.⁸⁹

Finally, the EG remembered that FRAND licenses are tales of two protagonists, where SEP holders and implementers are not leading and supporting actors, respectively, but rather co-protagonists. Specularly to SEP holders' patent pool efforts, implementers should form collective licensing negotiation groups whose licensing determinations bind participating implementers.⁹⁰ A single patent pool for all standards applicable to a given IoT product together with a single licensing negotiation group of all relevant IoT product implementers would bring the benefit of a one-stop-shop for both SEP holders and licensees, minimising overall transaction costs. In this sense, an example exists of a one-to-one transaction between a patent-pool and a group of licensees. Early in 2019, the patent pool administrator Sisvel and the defensive patent aggregator RPX concluded a contract providing a subset of RPX clients with a license for the Wi-Fi patent portfolio managed by Sisvel.⁹¹ Again, the next Art. 101 TFEU horizontal cooperation guidelines are a convenient venue to incentivise collective actions by SEP implementers while keeping monopsony risks, in the form of collective patent hold-out, under competition law check.

Conclusions

The SEP EG provides a valuable collection of proposals for the future of SEP licensing in the IoT. While many are often conflicting and some are ideal world aspirations, two common unifying themes can be identified. One is the move towards greater clarity on the SEP landscape by knowing the number of truly essential SEPs, having more detailed and specific SEP disclosure and ensuring stronger validity chances of granted SEPs. The second is the move towards greater collective industry actions – from agreeing on aggregate royalty rates for a standard for different product categories, agreeing on the levels in the supply chains for licensing SEPs to formation of patent pools and implementer licensing platforms. All these collective actions are followed with the recognition that competition authorities should take a more lenient approach and acknowledge the pro-competitive potential collective industry negotiations in the SEP licensing environment in the IoT. These two trends are commendable and represent a step in the right direction, although the devil is in the details and the successful implementation of these proposals is something to be worked out in the years to come.

⁸⁸Ibid, 167-168.

⁸⁹Such a structural reform is attributable to the expert Fabian Hoffmann, who previously introduced the idea during a 2019 conference at the German patent office in Munich. <https://www.ipdr-forum.org/events/gema-type-frand-agencies/>

⁹⁰SEPs Expert Group Report, 169-171.

⁹¹<https://www.sisvel.com/news-events/news/sisvel-and-rpx-conclude-licensing-agreement-for-wi-fi-standard-essential-patents>

References

- AMPLIFIED - GREY, B. (2020) *Exploration of 5G Standards and Preliminary Findings on Essentiality*.
- BARON, J. ET AL. (2021). Group of Experts on Licensing and Valuation of Standard Essential Patents - Contribution to the Debate on SEPs. (January 2021) (SEPs Expert Group Report)
<https://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=40990&no=5>
- BEKKERS, R. ET AL. (2020). *Pilot Study for Essentiality Assessment of Standard Essential Patents*.
- BEENEY, G. (2020). *Letter of Request for Business Review of University Technology Licensing Program*. (14 August 2020).
- COMMISSION (2020). *Making the most of EU's Innovative Potential: An Intellectual Property Action Plan to Support the EU's Recovery and Resilience*. [Communication] COM(2020) 760 final.
- COMMISSION. (2017). *Setting Out the EU Approach to Standard Essential Patent*. [Communication] COM(2017) 712 Final.
- COMMISSION (2013). Press Release 10 December 2009 MEMO/09/549, Case COMP/39615 ICom.
- CONTRERAS, J. , NEWMAN, D. (2014). Developing a Framework for Arbitrating Standards-Essential Patent Disputes. *Journal of Dispute Resolution* 23.
- CONTRERAS, J.. (2013). Technical Standards and Ex Ante Disclosure: Results and Analysis of an Empirical Study. *53 Jurimetrics* 163.
- CREMERS, K. ET AL. (2017). Patent Litigation in Europe. *European Journal of Law and Economics* 1.
- CYBER CREATIVE INSTITUTE (2013). Evaluation of LTE Essential Patents Declared at ETSI.
- DIJKMAN, L. (2020). *Breaking: Düsseldorf Court Refers Questions on Component-Level SEP Licensing to CJEU in Nokia/Daimler*. (The IPKat, 26 November 2020)
<https://ipkitten.blogspot.com/2020/11/breaking-dusseldorf-court-refers.html>
- GALETOVIC, A., HABER, S. & ZARETZKI, L. (2018). *An Estimate of the Average Cumulative Royalty Yield in the World Mobile Phone Industry: Theory, Measurement and Results*, 42 *Telecommunications Policy* 263).
- GALLI, N. (2020). *Patent Aggregation in Europe: The Spotlight on Patent Licensing by Patent Aggregators*. EIPIN-IS Research Paper no. 20-03;
- GALLI, N. (2016). *Standard Essential Patents Litigation and Abuse of a Dominant Position: The FRAND Defense in the EU Competition Law Context* (Master Thesis University of Florence, 2016), 145-146.
- GERADIN, D. (2021). *The European Commission's expert group Report on SEP licensing and valuation: What did we achieve? What did we miss?*
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3783710
- Google/Motorola Mobility (Case COMP/M.6381) Commission Decision 13 February 2012 (C(2012)1068) OJ C75/1.
- GRAHAM, S. (2019). Nokia, Daimler, Continental Ramp up global patent chess match' (14 June 2019) *Law.com*.
- HAMER, M. (2019). *Letter of Request for Business Review of Avanci's Proposed 5G Patent Platform for Connected Transportation Vehicles*. (21 November 2019).
- CHEE, F. Y. (2019). Continental, Valeo seek EU antitrust action against Nokia. (17 April 2019) *Reuters*.

ILBERT, R. (2011). Deal or No Deal? Licensing Negotiations in Standard Setting Organizations' (2011) 77 *Antitrust Law Journal* 855.

KLOS, M. (2020). Setback for Daimler in Connected Cars Dispute Against Avanci Pool Members. (11 September 2020) *JUVE Patent*.

LANDGERICHT DÜSSELDORF (2020). *Vorlagebeschluss an den Europäischen Gerichtshof in der patentrechtlichen Verletzungsklage Nokia/Daimler*. (Press release, 26 November 2020) <https://www.lg-duesseldorf.nrw.de/behoerde/presse/Pressemitteilungen-2020/22-20.pdf>

LAYNE-FARRAR, A., LLOBET, G. & PADILLA, J. (2009). Preventing Patent Hold Up: An Economic Assessment of Ex Ante Licensing Negotiations in Standard Setting, 37 *AIPLA Quarterly Journal* 445.

LEMLEY, M. (2007). Ten Things to Do About Patent Holdup and Standards (and One Not To). 48 *Boston College Law Review* 149;

MAKANDEL, R. (2020). *Letter to Mark Hamer: Avanci Business Review Letter*. (28 July 2020).

MARINIELLO, M. (2011). Fair, Reasonable and Non-Discriminatory (FRAND) Terms: A Challenge for Competition Authorities. 7(3) *Journal of Competition Law and Economics* 523.

MCDONAGH, L., BONADIO, E. (2019). *Standard Essential Patents and the Internet of Things*. 7.

MURRAY, M. (2021). *Letter to Garrard Beene: UTLP Business Review Letter*. (13 January 2021).

Nokia v Daimler 20 34/19 District Court of Mannheim (18 August 2020).

OHANA, G., HANSEN, M. & SHAH, O. (2003). Disclosure and Negotiation of Licensing Terms Prior to Adoption of Industry Standards: Preventing Another Patent Ambush? 24 *European Competition Law Review* 648.

RICHTER, K. (2020) *Daimler Loses to Conversant Over Connected Cars SEP*. (28 October 2020) *JUVE Patent*.

Rambus (Case COMP/38.636) Commission Decision 9 December 2009 (Summary 2010/C 30/09 OJ C/30/17) [2009].

SIDAK, G. (2009). Patent Holdup and Oligopsonistic Collusion in Standard-Setting Organizations. 5 *Journal of Competition Law & Economics* 123.

SIINO, J. (2017). Escaping the prisoner's dilemma: towards a new transparency in patent licensing. 84 *Intellectual Asset Management* 58.

STASIK, E., COHEN, D. (2020). Royalty Rates and Licensing Strategies for Essential Patents on 5G Telecommunication Standards: What to Expect. *Les Nouvelles* 176.

STASIK, E. (2010). Royalty Rates and Licensing Strategies for Essential Patents on LTE (4G) Telecommunications Standards. *Les Nouvelles* 114.

SKITOL, R. (2005). Concerted Buying Power: Its Potential for Addressing the Patent Hold-up Problem in Standard Setting. 72 *Antitrust Law Journal* 727.

TCL v Ericsson, 2017 WL 6611635 (C.D. Cal. 2017).

Unwired Planet v Huawei [2017] EWHC 2988 (Pat).

Unwired Planet v Huawei 114 [2020] UKSC 37.

US DEPARTMENT OF JUSTICE AND THE FEDERAL TRADE COMMISSION. (2007). *Antitrust Enforcement of Intellectual Property Rights: Promoting Innovation and Competition*. 49-50.

Corresponding address: Niccolò Galli, European University Institute, Robert Schuman Centre for Advanced Studies; Via G. Boccaccio, 121; I - 50133 Florence, Italy, e-mail: niccolo.galli@eui.eu



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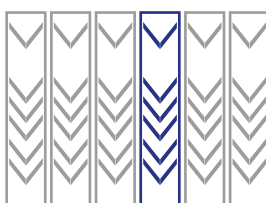
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