Case No: A3/2017/1784

Neutral Citation Number: [2018] EWCA Civ 2344

IN THE COURT OF APPEAL (CIVIL DIVISION)
ON APPEAL FROM CHANCERY DIVISION, PATENTS COURT
Mr Justice Birss
[2017] EWHC 711 (Pat)

Royal Courts of Justice
Strand, London, WC2A 2LL

Date: 23/10/2018

Before :

LORD KITCHIN
LORD JUSTICE FLOYD
and
LADY JUSTICE ASPLIN

- -

Between :

(1)UNWIRED PLANET INTERNATIONAL LIMITED **(2) UNWIRED PLANET LLC**	**Claimant/ Tenth Party/ Respondents**
- and -	
(1) HUAWEI TECHNOLOGIES CO. LIMITED **(2) HUAWEI TECHNOLOGIES (UK) CO LIMITED**	**Defendants/ Appellants**

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- -

Andrew Lykiardopoulos QC and James Segan (instructed by **Powell Gilbert**) for the **Appellants**
Adrian Speck QC, Sarah Ford QC, Isabel Jamal and Thomas Jones (instructed by **EIP and Osborne Clarke LLP)** for the **Respondents**

Hearing dates: 17th May- 23rd May 2018

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Judgment

Lord Kitchin:

1. This is the judgment of the court to which we have all contributed.

2. This appeal raises a number of important points of principle concerning the obligation upon the owner of a patent which protects a technology which its owner has declared to be essential to the implementation of one or more of the telecommunications standards such as 2G-GSM, 3G-UMTS and 4G-LTE. A patent of this kind is called a standard essential patent (a "SEP").

3. It is generally accepted that the publication of such a standard supports innovation and growth by ensuring the interoperability of the digital technologies to which it relates. It leads to an increase in the range and volume of products which meet the standard and it allows consumers to switch more easily between the products of different manufacturers. Standards are set by standard setting organisations ("SSOs"). SSOs bring together industry participants to evaluate technologies for inclusion in a new standard, encourage those participants to contribute their most advanced technologies to that standard and promote the standard once it has been agreed. There are various SSOs around the world and each of them operates in much the same way. The SSO with which these proceedings are most concerned is the European Telecommunications Standards Institute ("ETSI").

4. As the European Commission has recognised, SEPs can be of great value to their holders. These holders can expect a substantial revenue stream from their SEPs as the standard for which they are essential is implemented in products sold to millions of consumers. This revenue stream is supported by the fact that alternative technologies which do not meet the standard may well disappear from the market. But the potential for anti-competitive behaviour is obvious. The owner of a SEP has the potential ability to "hold-up" users after the adoption and publication of the standard either by refusing to license the SEP or by extracting excessive royalty fees for its use, and in that way to prevent competitors from gaining effective access to the standard and the part of the telecommunications market to which it relates. ETSI and other SSOs therefore require the owners of SEPs to give an irrevocable undertaking in writing that they are prepared to grant licences of their SEPs on fair, reasonable and non-discriminatory ("FRAND") terms. This undertaking is designed to ensure that any technology protected by a SEP which is incorporated into a standard is accessible to users of that standard on fair and reasonable terms and that its owner cannot impede the implementation of the standard by refusing to license it or by requesting unfair, unreasonable or discriminatory licence fees.

5. As we shall explain, the negotiation of licences for SEPs on FRAND terms may be far from straightforward, however. The owner of a SEP may still use the threat of an injunction to try to secure the payment of excessive licence fees and so engage in hold-up activities. Conversely, the infringer may refuse to engage constructively or behave unreasonably in the negotiation process and so avoid paying the licence fees to which the SEP owner is properly entitled, a process known as "hold-out".

6. In these proceedings, the claimant ("UP International") sued the Huawei defendants (together "Huawei"), Samsung and Google for infringement of five SEPs in the UK. For reasons to which we shall come in a moment, we are now concerned only with the proceedings against Huawei. The SEPs in issue formed part of a worldwide patent

portfolio which UP International and its associated companies had acquired from Ericsson. UP International contended that the five SEPs had been infringed and were essential, and that Huawei, having refused to take a FRAND licence, should be restrained by injunction from further infringement. Huawei responded that the SEPs were neither essential nor valid. It also raised defences and counterclaims based on breaches of competition law, aspects of which were founded upon the contention that UP International and its associated companies had not made an offer to license these patents on FRAND terms.

7. The dispute was case managed by Birss J into a series of trials. The first group of trials were technical trials concerning the validity of the SEPs and whether they were indeed essential (and so, it could be assumed, infringed). By April 2016 three technical trials had been completed and the parties agreed to postpone any further such trials indefinitely. The outcome of these three trials was that two of the SEPs were found to be both valid and essential. Two other SEPs were found to be invalid.

8. The final trial came on for hearing before Birss J in late 2016. It was concerned with FRAND licensing and lasted for seven weeks. By this time UP International and its associated companies had settled the proceedings for infringement of the SEPs against Google and Samsung. In the case of Samsung, that settlement was reached in the summer of 2016, relatively shortly before trial. On 28 July 2016 it took a licence ("the Samsung licence") from UP International and the 10^{th} party, Unwired Planet LLC ("UP LLC" and, together with UP International, "UP").

9. The parties to this final trial were therefore UP and Huawei. Over the course of the preceding two years each had made licensing offers to the other. In April 2014, after proceedings had begun, UP made an open offer to Huawei to license its entire global portfolio of SEPs and non-SEPs. Huawei undertook from the outset of the proceedings to take a licence under any of the UK SEPs which were found to be valid and infringed.

10. In July 2014 UP made a further offer which related only to its SEPs. In broad terms, it offered to license the use of its SEP technology in connection with the sale of mobile devices and infrastructure which met the 4G-LTE standard at a rate of 0.2%, or which met other standards (that is to say, 2G-GSM and 3G-UMTS) at a rate of 0.1%. This offer was not acceptable to Huawei. We should explain at this point that the terms 2G, 3G and 4G are not strictly interchangeable with, respectively, the terms LTE, UMTS and GSM, but the differences are not material to this appeal and so we draw no distinction between them.

11. In June 2015 and as a result of directions from the court, each side made further licensing offers. UP offered a worldwide SEP portfolio licence, a UK SEP portfolio licence and per-patent licences for any SEP that Huawei chose. The royalties claimed for per-patent licences or a UK portfolio licence were higher than the global rate on offer which remained at a rate of 0.2% for products meeting the 4G-LTE standard and 0.1% for products meeting other standards. Huawei offered to take a per-patent licence of the UK SEPs only at a collective rate of 0.034% for products meeting the 4G-LTE standard and 0.015% for products meeting the 3G-UMTS standard. It offered nothing for products meeting the 2G-GSM standard.

12. At the beginning of August 2016 each side made yet further licensing offers. UP again offered a worldwide SEP portfolio licence but at the reduced rates of 0.13% for products meeting the 4G-LTE standard and 0.065% for products meeting other standards. It also offered a UK SEP portfolio licence at the following rates:

i) for 4G-LTE: infrastructure 0.42%; mobile devices 0.55%; and

ii) for 2G-GSM and 3G-UMTS: infrastructure 0.21%; mobile devices 0.28%.

13. Huawei's August offer was on the same UK only per-SEP basis as before but at these revised rates:

i) for 4G-LTE: infrastructure 0.036%; mobile devices 0.040%;

ii) for 3G-UMTS: infrastructure 0.015%; mobile devices 0.015%;

iii) and nothing for 2G-GSM.

14. On 11 October 2016, on the eve of the trial, Huawei made a new licensing proposal. This increased the per-patent royalties on offer and also proposed a licence under the whole of UP's UK SEP portfolio. The UK portfolio rates were:

i) for 4G-LTE: infrastructure 0.061%; mobile devices 0.059%;

ii) for 3G-UMTS: infrastructure 0.046%; mobile devices 0.046%;

iii) for 2G-GSM single mode: infrastructure 0.045%; mobile devices 0.045%.

15. In the result, Birss J was faced at the final trial with a large number of issues. He was required to decide whether the licensing terms offered by UP and Huawei, respectively, were FRAND; if they were not, to determine the terms that would be FRAND; and to resolve the competition law defences, and in particular to determine whether UP had abused its dominant position and was therefore barred from claiming injunctive relief as a result of its failure to comply with its FRAND obligations. This allegation of abuse of dominant position had three limbs: first, that UP issued these proceedings without properly specifying its case on infringement or presenting to Huawei a licensing offer of any kind, still less a FRAND offer; secondly, that the rates ultimately demanded by UP were excessive and unreasonable; and thirdly, that UP had improperly sought to bundle together with its UK SEPs all of its SEPs in other jurisdictions by requiring Huawei to enter into a worldwide licence.

16. Birss J gave his judgment on 5 April 2017 ([2017] EWHC 705 (Pat)). It is long, detailed and careful. His essential findings of relevance to this appeal were these:

i) Willing and reasonable parties would agree on a global licence, and such a licence was the FRAND licence for a portfolio such as that held by UP and for an implementer like Huawei. UP was therefore entitled to insist on it. It followed that the UK licence offered by Huawei was not FRAND.

ii) The rates sought by UP were too high and it was appropriate for the court to set the appropriate global FRAND rates between the parties.

iii) UP was in a dominant position in the relevant market but had not abused that dominant position by pursuing the proceedings in the way that it did.

17. The judge therefore proceeded to determine the appropriate FRAND rates for a global licence and, in case a higher court might come to a different conclusion on the nature and extent of the FRAND obligation, the appropriate FRAND rates for a UK licence. We should say that the issue of licence rates was one to which a large part of the evidence and submissions of the parties at trial were directed. Subject to the grounds of appeal to which we will come in a moment, the judge's conclusions on this issue are not challenged on this appeal.

18. A hearing as to the appropriate form of order took place on 19 May 2017. On 7 June 2017 the judge gave a further judgment in which he resolved all the outstanding issues ([2017] EWHC 1304 (Pat)) and his final order was made on that same day. He granted a UK injunction against Huawei until such time as it entered into a global agreement, the terms of which he settled and which he held were FRAND but stayed the injunction pending appeal. Huawei has since undertaken to enter into whatever licence is finally determined to be FRAND in these proceedings.

19. Huawei now appeals against Birss J's final order with the permission of the judge on the following three grounds. It contends first, that, far from being FRAND, the imposition of a global licence on terms set by a national court based on a national finding of infringement is wrong in principle and leads to results which are manifestly unjust. That is particularly so in the present case, it continues. The judge held that, in order to be FRAND, the licence had to be global and had to include all SEPs owned by UP which it wished to license anywhere in the world. UP LLC was a party to the action only as a defendant to the competition law counterclaims and did not own any UK patents but only patents in other jurisdictions. Despite this, the judge set the global rate and terms of a licence in circumstances where 64% of the money to be paid relates to Chinese patents owned by UP LLC, rather than to any patent owned by UP International. What is more, the judge settled this licence notwithstanding the facts that (a) there was ongoing patent litigation in relation to corresponding patents in Germany and in China, and (b) there were some countries where UP had no relevant patents at all.

20. Secondly and in the event that the appeal on ground one should fail, Samsung was, on the judge's own finding, a company which was similarly situated to Huawei. In those circumstances, Huawei ought to have been offered the same rates as those reflected in the Samsung licence because the non-discrimination limb of FRAND prohibits a SEP owner from charging similarly situated licensees substantially different royalty rates for the same SEPs. The judge fell into error in failing so to find.

21. Thirdly and in light of the decision of the Court of Justice of the European Union (the "CJEU") in Case C-170/13 *Huawei v ZTE* [2015] Bus LR 1261, the owner of a SEP cannot, without infringing Article 102 of the Treaty on the Functioning of the European Union (the "TFEU"), bring an action for a prohibitory injunction against an alleged infringer without (a) notice or prior consultation and, if the alleged infringer has expressed a willingness to conclude a licensing agreement on FRAND terms, (b) offering to that infringer a licence on such terms. In this case, UP sued Huawei without giving any notice of which SEPs were said to be infringed or why, and without having made any licensing offer. That conduct contravened Article 102 TFEU

and afforded a defence to the grant of an injunction. In these circumstances the judge ought to have found that this defence had been made out.

22. We will deal with the three grounds of appeal in turn but must first set out some of the essential features of the FRAND framework.

The FRAND framework

23. ETSI is recognised by the European Union (the "EU") as the SSO in the EU telecommunications sector. It has counterparts in other countries such as the US, China, Korea, Japan and India. Each of these SSOs has an intellectual property right policy ("IPR Policy"). The principal 2G, 3G and 4G telecommunications standards are overseen or were developed by the 3G Platform Partnership ("3GPP"). 3GPP is a partnership between ETSI and the other SSOs.

24. The ETSI IPR Policy is set out in annex 6 to the ETSI rules of procedure. It explains, in clause 3, that it is ETSI's objective to create standards and technical specifications which best meet the technical objectives of the European telecommunications sector. It continues that, to further this objective, the ETSI IPR Policy seeks, on the one hand, to reduce the risk to undertakings applying its standards of investment being wasted as a result of the essential intellectual property for that standard not being available; and, on the other hand, to ensure that the owners of an essential intellectual property right are adequately and fairly rewarded for its use.

25. Article 4.1 of the ETSI IPR Policy requires members of ETSI to inform ETSI of any "ESSENTIAL" intellectual property right ("IPR") in a timely fashion. An ESSENTIAL IPR is defined as an IPR which is necessary from a technical perspective for the implementation of a standard. A SEP is necessarily an ESSENTIAL IPR. Once an ESSENTIAL IPR has been declared by its owner to ETSI then, irrespective of whether that owner is a member of ETSI, it will be requested by ETSI, pursuant to clause 6.1 of the ETSI IPR Policy, to give an irrevocable undertaking in writing that it is prepared to grant irrevocable licences on FRAND terms. Clause 6.1 provides:

> "6.1 When an ESSENTIAL IPR relating to a particular STANDARD or TECHNICAL SPECIFICATION is brought to the attention of ETSI, the Director-General of ETSI shall immediately request the owner to give within three months an irrevocable undertaking in writing that it is prepared to grant irrevocable licences on fair, reasonable and non-discriminatory ("FRAND") terms and conditions under such IPR to at least the following extent:
>
> ● MANUFACTURE, including the right to make or have made customized components and sub-systems to the licensee's own design for use in MANUFACTURE;
>
> ● sell, lease, or otherwise dispose of EQUIPMENT so MANUFACTURED;
>
> ● repair, use, or operate EQUIPMENT; and

● use METHODS.

The above undertaking may be made subject to the condition that those who seek licences agree to reciprocate."

26. It is important to mention four further points at this stage. First, an undertaking given to ETSI pursuant to clause 6.1 has international effect. This is because the standards supported by the ETSI undertaking are themselves of international effect so that businesses can make and supply, and members of the public can use, products which comply with the standard all over the world. To this end clause 6.2 provides that an undertaking given pursuant to clause 6.1 in respect of a member of a patent family shall apply to all existing and future ESSENTIAL IPRs of that patent family unless there is an explicit written exclusion of specified IPRs at the time the undertaking is given. Indeed, Mr Cheng, the Deputy Director of Huawei's IP Department, said in evidence that it would make no sense for owners of SEPs to give undertakings restricted to particular national jurisdictions.

27. Secondly, it was common ground at the trial that UP was bound in law to license its ESSENTIAL IPR on FRAND terms. The ETSI IPR Policy is governed by French law and the judge found (and there is no appeal against his finding) that the FRAND undertaking given by UP was binding upon UP and enforceable by Huawei and, indeed, any third party. The nature of that obligation did not mean that either UP or Huawei could be compelled to enter into a contract against its will, however. It meant that if UP refused to enter into a FRAND licence then the court could and normally should refuse to grant it relief for patent infringement. Conversely, if Huawei declined to enter into a FRAND licence then the relief available for infringement should normally follow.

28. Thirdly, there was no real dispute at trial as to how FRAND terms should be assessed, at least in general terms. The task of the tribunal is to identify terms which would be fair, reasonable and non-discriminatory. The judge directed himself, correctly in our view, that relevant matters will include what a willing licensor and a willing licensee in the relevant circumstances acting without holding out or holding up would agree upon, general practice in the industry, and any relevant comparables. The evidence of the parties may be helpful, as may evidence from appropriately qualified expert witnesses. It was also agreed that it is appropriate to start by assessing a global rate, effectively as a benchmark, and then, if and so far as it may be necessary and appropriate to do so, to adjust it upwards to arrive at a UK rate.

29. Fourthly, one of the questions which arose before the judge was whether, for any given set of circumstances, there is only one FRAND rate and, by parity of reasoning, only one set of FRAND licence terms. The judge concluded that there is indeed only one set of terms, including one rate or set of rates, which are truly FRAND. He felt supported in this view by the evidence of the expert economists before him. He also thought it would promote certainty and make the enforcement of the FRAND undertaking conceptually straightforward. It would mean that, for any given situation, a court would be able to hold the parties to their obligations arising from the FRAND undertaking. Both parties would be entitled to insist on the FRAND terms and neither would be entitled to insist on anything other than the FRAND terms. It was, to his mind, the only approach which produced a result which was fair to both the owner of

the SEPs and the implementer. We must return to this finding for it is one with which Huawei does not agree.

Ground 1 – global licensing

30. We must begin by outlining the positions adopted by the parties at trial and the reasons Birss J gave in support of his conclusion that, in the circumstances of this case, a FRAND licence would be of global scope.

The trial and decision of Birss J

31. As we have seen, the rival positions of the parties before the judge at trial were as follows. Huawei indicated it was willing to take a licence under UP's UK patent portfolio. UP contended that it was entitled to insist upon the grant of a global licence.

32. Huawei developed its case before the judge in the following way. It argued that it was not FRAND for an undertaking, such as UP, to seek to bundle UK SEPs with non-UK SEPs which could never have been made the subject of an action in this jurisdiction. What was more, it continued, this amounted to an abuse of a dominant position because it was a fundamental principle of EU competition law that a dominant undertaking could not tie or bundle together, with a product or service in respect of which it held a dominant position, some other product or service which did not fall within the same market. It also argued that there was no such thing as a portfolio right; that there was a fundamental difference of principle between bundling all rights enjoyed within a jurisdiction and bundling all rights enjoyed across different jurisdictions; and that the approach for which UP was contending amounted to a form of coercion and was contrary to well-established jurisdictional rules.

33. Huawei also submitted that some of the particular circumstances of this dispute and aspects of the parties' respective positions made it wholly inappropriate to impose upon it a global licence. Here it advanced the following, among other, arguments: UP did not have SEPs in every country of the world - indeed its portfolio was relatively small and geographically limited; Huawei was making a very considerable volume of sales in South America and South East Asia in respect of which UP had no relevant SEPs; Huawei manufactured handsets in Venezuela and this was a territory in which UP had no relevant SEPs; UP's coverage of 3G-UMTS and 2G-GSM was much weaker than for 4G-LTE; and Huawei was engaged in litigation with UP not just in this country but also in Germany and China on SEPs within the portfolio and that these SEPs might be revoked.

34. The judge was not persuaded that global portfolio licensing necessarily foreclosed or restricted competition. Indeed, he found that portfolio licensing was common industry practice and had efficiency benefits. It saved transaction costs for both licensors and licensees and obviated the need to determine a royalty on a patent by patent basis. What was more, the vast majority of patent licences before the court were worldwide licences or at least covered a number of different territories. The judge drew the inference from all of the evidence before him that multi-jurisdictional portfolio licences were in and of themselves unlikely to have anti-competitive effects and that a demand for a worldwide licence was not inherently likely to distort competition. He therefore rejected the general submission made to him that worldwide portfolio licences were necessarily and inherently objectionable. They might or might not be, and all would depend upon the circumstances pertaining to each particular agreement and licence.

35. Turning to the arguments specific to the circumstances of UP and Huawei, the judge began by addressing the contention that UP's SEP portfolio was limited. Here he observed that the portfolio covered most of Europe, Russia, Turkey, China, Japan, much but not all of South East Asia, the USA, Canada, Australia, India and Mexico. He accepted that coverage was limited in Africa, South America and Eastern Europe but he thought that overall the coverage was very wide and, indeed, not very different from that of Huawei.

36. The judge did not appear to be greatly impressed with Huawei's further points that it was making a very considerable volume of sales, especially of and 2G-GSM and 3G-UMTS equipment in South America and South East Asia where UP had no relevant SEP coverage. Here he observed that it was necessary to consider manufacturing as well as sales and that, subject to Venezuela, this took place in China where there was SEP coverage. As for Venezuela, Huawei's manufacturing facility there put together components which had been made in China.

37. Nevertheless, the judge did accept that UP's portfolio was much smaller than that of the big manufacturers such as Huawei, Samsung and Ericsson. But, he continued, it was not so small as to justify treatment in a different way from that of a large portfolio. It was still large enough for it to be impractical to fight over every patent. What was more, the small size of the portfolio and the relatively low number of SEPs would be reflected in the FRAND royalty rate.

38. There followed an assessment by the judge of the impact of these matters upon the geographical scope of a licence that a willing licensor and a willing licensee in the positions of, respectively, UP and Huawei would agree. Here, his findings were unequivocal and merit recitation in full:

> "543. Before turning to the impact of the litigation, this is a convenient point to ask what sort of licence for Unwired Planet's portfolio would be FRAND in terms of its geographical scope when applied to a multinational licensee like Huawei? I will start by asking what a willing licensor and a willing licensee with more or less global sales would do. There is only one answer. Unwired Planet's portfolio today is (and in 2014 it was) sufficiently large and has sufficiently wide geographical scope that a licensor and licensee acting reasonably and on a willing basis would agree on a worldwide licence. They would regard country by country licensing as madness. A worldwide licence would be far more efficient. It might well have different rates for different regions and for different standards but that is another matter. The employment of different rates would not lead the parties to abandon a worldwide licence and go for country by country licensing. Assuming the licensee was a Chinese multinational like Huawei, they might well agree on different rates for China as for the Rest of the World but again they would not go for country by country licensing. If the multinational had a significant manufacturing base in another country in which the portfolio was weak, again that could be taken into account.

> 544. A point arose in the arguments on the terms of the UK only licence which Huawei called a manoeuvre. Unwired Planet insisted that the UK only licence should have a term in it precluding entry into the UK of unlicensed Huawei handsets. This seems to have caught Huawei by surprise but it really should not have done. It was a manifestation of the point that the UK only licence is only a licence under the UK patents. It illustrates one reason why country by country licensing is inefficient for goods like mobile telecommunications devices which will move across borders but I do not regard this as a major point in the present context. It would have to be addressed but that could be done (see below the section on the UK only licence where it is addressed in context). The real inefficiency of country by country licensing is the effort required to negotiate and agree so many different licences and then to keep track of so many different royalty calculations and payments. No rational business would do this if it could be avoided. ”

39. That did not necessarily mean that a global licence would be FRAND, however. It might still constitute unlawful bundling. Here the judge made a further important finding that, given the prevalence of worldwide licences and the prevalence of assessment based upon patent families and the obvious inefficiencies of country by country licensing, he was not prepared to assume that the tying by UP of a SEP licence in one country to a SEP licence in another country had, by its nature, a competitive foreclosure effect. He thought that close analysis of the actual effects of such tying activities would be required and that had not been done.

40. The judge then turned to the other points relied upon by Huawei and reasoned as follows. First, he accepted that there was no such thing in law as a "portfolio right" and that if and in so far as UP wished to pursue claims for infringement of its SEPs it would have to do it in the territories in which they subsisted. But again that did not mean that a global licence was not FRAND.

41. Secondly, he rejected the submission that there was a fundamental difference in principle between the bundling of all rights enjoyed within a given jurisdiction and the bundling of rights across jurisdictions. It was of course true that there was a risk that the threat of an injunction might function, unfairly and unreasonably, to coerce an undertaking into accepting a global licence; and further, it might also undermine the impact of revocation proceedings in respect of foreign patent rights. But the position changed once a FRAND offer was available. In proceedings for infringement of one or more SEPs, an injunction would only be granted once a SEP had been held by the court to be valid and essential and the FRAND offer rejected. Furthermore, there was nothing to prevent a FRAND licensee from challenging the validity of a licensed SEP in any jurisdiction and the licence could and should include an appropriate mechanism to deal with the outcome of such proceedings.

42. Thirdly, he held there was no question of this approach contravening any jurisdictional rules. If a worldwide licence was FRAND then requiring Huawei to take it did not amount to an assessment of the validity of any foreign patent. Validity

would still be an issue falling within the exclusive jurisdiction of the courts of the territory where that patent subsisted.

43. Fourthly, it necessarily followed that this approach did not cut across the ongoing litigation in China and Germany. Thus far there had been wins, losses and appeals on both sides, with no final outcome.

44. The judge then expressed his conclusion in these terms at [572]:

> "I conclude that a worldwide licence would not be contrary to competition law. Willing and reasonable parties would agree on a worldwide licence. It is the FRAND licence for a portfolio like Unwired Planet's and an implementer like Huawei. Therefore, Unwired Planet are entitled to insist on it. It follows that an insistence by Huawei on a licence with a UK only scope is not FRAND."

The appeal

45. Upon this appeal Huawei contends that there was only one correct approach to a court determination of what is or is not a FRAND licence in the context of existing proceedings, and it was one the judge failed to adopt. The task of the court was to determine the appropriate relief for infringement of two SEPs. Huawei's offer to enter into a FRAND licence settled by the court which covered all UP's UK rights was sufficient to meet the FRAND undertaking UP had given and, in the absence of agreement, it was inappropriate for a UK court to set rates and impose a licence which extended beyond the UK. The judge's approach is therefore wrong in principle and gives rise to real practical difficulties and inconsistencies; and further, the judge's reasons for adopting a global approach to the determination of the appropriate FRAND licence are flawed.

46. UP supports the judgment and argues that the judge came to the correct conclusion and that he did so for reasons which are unimpeachable.

The rival approaches

47. Counsel for Huawei submit that the obligation on the owner of a SEP is to be prepared to grant licences on FRAND terms. But they say there is nothing in the FRAND undertaking which either creates a global portfolio right or which alters the basic legal characteristics of a SEP which is a territorially limited intellectual property right.

48. Counsel for Huawei accept that SEP owners and implementers may negotiate a licence which suits their requirements in accordance with FRAND principles, and that such a licence will often be of worldwide scope. But, they continue, we are concerned with a different case for it is one in which UP elected to pursue Huawei in the UK and Germany before any negotiations could begin. In these circumstances the issue became one of national patent enforcement. A UK court can only properly determine the infringement and validity of UP's UK SEPs. Further, by giving a FRAND undertaking in relation to those SEPs, UP has given up the right to exclude third parties from the UK market in return for FRAND royalties. It follows that, in light of

the FRAND undertaking given by UP, an implementer, such as Huawei, ought to be able to enter the UK market by payment of FRAND royalties in respect of the UK SEPs which protect this market. The purpose of an injunction in relation to a UK patent is, ultimately, to protect a statutory monopoly and it must equate to the statutory right given. In principle, therefore, FRAND royalties should match the territorial scope of the SEP, and of the injunction forgone by the SEP owner. In short, they argue, the legitimate purpose of an injunction in relation to a SEP is to secure the FRAND remuneration for the territory in which that SEP subsists and no other territory.

49. These submissions are, say counsel for Huawei, supported by the approach taken by courts and decision making bodies in other jurisdictions. Indeed, they continue, the UK court currently stands alone in considering a territorially limited licence to be incompatible with FRAND. In this connection they and counsel for UP have taken us to a series of decisions to which we will come in a moment.

50. Counsel for UP respond that by giving a FRAND undertaking, a SEP owner comes under an obligation that restricts its ability to enforce its SEPs. It is a single obligation and it is one enforceable by implementers such as Huawei. Absent the restriction, the relief to which the SEP owner would normally be entitled would include an injunction. However, the restriction requires the SEP owner to be prepared to license its SEPs on FRAND terms. That means an implementer is in a position to avoid an injunction by taking the FRAND licence. But the licence is not imposed as a remedy for patent infringement. It is what the SEP owner must be prepared to offer to the implementer, and if the implementer accepts it, he will avoid an injunction. If the implementer does not accept it, then the patentee will obtain the normal relief for infringement.

51. Counsel for UP continue that the licence which the SEP owner is required to offer need not be limited to the particular SEPs sought to be enforced in the proceedings. In the case of a SEP portfolio with worldwide coverage, a willing licensor and willing licensee would ordinarily agree a worldwide licence and, depending on all the circumstances, such a licence may be and likely will be FRAND. In these circumstances a SEP owner may meet its FRAND obligation by offering a worldwide licence under all of its SEPs. The licensee may seek to challenge the patents in the portfolio but that should not delay the parties entering into the licence, for the licence can incorporate ways of dealing with such a challenge as and when it occurs.

52. We should say straight away that we accept without question that a UK SEP has limited territorial scope and that courts in this jurisdiction will generally only determine disputes concerning the infringement and validity of UK or EP UK patents. If a UK SEP is found valid and infringed, a UK court will only grant relief in respect of the infringement of that patent. As Aldous LJ explained in *Coflexip SA v Stolt Comex* [2001] RPC 9 at [18], the injunction must equate to the statutory right given; a right which has been held to have been validly granted and infringed. So the court will only grant an injunction to restrain infringement of the SEP in issue in the proceedings. The same applies to a claim for damages: they will only be awarded for infringement of that SEP.

53. The position in relation to a FRAND undertaking is rather different, however. As we have seen, ETSI is the SSO for the EU but its standards are of international effect. So

too, the FRAND undertaking given by a patent owner to ETSI in return for the incorporation into the standard of the technology protected by the patent is also of international effect. It applies to all patents which belong to the same family irrespective of the territory in which they subsist. This is necessary to protect implementers whose equipment may be sold in a number of different jurisdictions and then used by members of the public who may travel with that equipment from one jurisdiction to another. These implementers must be able to use the technology embodied in and required by the standard provided they are prepared to pay a FRAND rate for doing so, for otherwise the owner of the relevant patent rights would be able to charge excessive licensing fees. So any implementer must be able to secure a licence on FRAND terms under all the SEPs it needs to produce and market its products which meet the standard.

54. But there is another side to the coin which needs some elaboration at this point. Just as implementers need protection, so too do the SEP owners. They are entitled to an appropriate reward for carrying out their research and development activities and for engaging with the standardisation process, and they must be able to prevent technology users from free-riding on their innovations. It is therefore important that implementers engage constructively in any FRAND negotiation and, where necessary, agree to submit to the outcome of an appropriate FRAND determination.

55. It therefore comes as no surprise to us that Huawei accepts, through counsel, that, outside the litigation process, SEP owners and implementers will often negotiate a licence which best suits their respective needs in accordance with FRAND principles and further, that this licence will often be global or at least cover a number of different territories. It may be wholly impractical for a SEP owner to seek to negotiate a licence of its patent rights country by country, just as it may be prohibitively expensive for it to seek to enforce those rights by litigating in each country in which they subsist. This latter point was accepted by Mr Cheng in the course of his evidence: he agreed that the costs of such litigation for UP would be impossibly high.

56. In our judgment these considerations point strongly to the conclusion that, depending on all the relevant circumstances, a global licence between a SEP owner and an implementer may be FRAND. Indeed, on the face of it, it is very hard to see how a contrary view could be justified. Assuming such a licence is not discriminatory, it would be the product of two undertakings acting fairly and reasonably. What is more, it seems to us, at least as a matter of principle, that there may be circumstances in which it would not be fair and reasonable to expect a SEP owner to negotiate a licence or bring proceedings territory by territory and that in those circumstances *only* a global licence or at least a multi-territorial licence would be FRAND.

57. Now we must consider the position of a SEP owner who brings proceedings for infringement against an implementer in one jurisdiction in respect of the SEPs which it owns there and makes good its case. If we assume, as Huawei invites us to, that the defendant establishes that a willing licensor and a willing licensee in the position of the parties would agree a FRAND licence in respect of that jurisdiction but the SEP owner refuses to offer it such a licence then we agree that no injunction should be granted. If, on the other hand, the implementer refuses to enter into the FRAND licence for that jurisdiction then the SEP owner can properly seek an injunction to restrain further infringement.

58. This is only part of the picture, however. We must also consider the position on the basis that a willing licensor and a willing licensee in the position of the parties to the proceedings would agree a *global* FRAND licence, that such a licence would conform to industry practice and that it would not be discriminatory. If the SEP owner were to refuse to grant such a licence to the implementer then once again it should be denied an injunction. If, on the other hand, the implementer were to refuse to enter into such a licence then, as a matter of principle, we think the SEP owner should be entitled to an injunction in that jurisdiction to restrain infringement of the particular SEPs in issue in those proceedings. Were the position otherwise then the SEP owner seeking to recover the FRAND licence monies for all of the SEPs in the same family from an uncooperative implementer who is acting unreasonably would be required to bring proceedings in every jurisdiction in which those rights subsist, which might be prohibitively expensive for it to do. This result would not involve any alteration of the territorially limited characteristics of any SEP; nor would it involve any jurisdictional expansionism. To the contrary, it would amount to a recognition by the court (i) that the SEP owner has complied with its undertaking to ETSI to offer a licence on FRAND terms; (ii) that the implementer has refused or declined to accept that offer without any reasonable ground for so doing; and (iii) that in these circumstances the SEP owner is entitled to the usual relief available for patent infringement including an injunction to restrain further infringement of the particular SEPs in issue in the proceedings.

59. That brings us to the approach adopted by courts and other decision making bodies to which Huawei and UP have referred us. We begin with the decision of the European Commission in *Motorola* (Case AT.39985) which was issued on 29 April 2014. This is perhaps the high-water mark of Huawei's case. Here the issue for the Commission was whether Motorola had infringed Article 102 TFEU (and Article 54 of the Agreement on the European Economic Area (the "EEA Agreement")) by seeking and enforcing an injunction against Apple before the German Federal Court in respect of Apple's infringement of one of its German SEPs relating to the GPRS standard. In the course of those German proceedings Apple offered to take a licence for the territory of Germany under all of Motorola's SEPs for a number of standards on terms to be settled by the German courts, if necessary. Motorola argued that this offer was not FRAND for a number of reasons, one of which was that the licence was not worldwide and only covered Germany. The Commission rejected Motorola's arguments. It found that Apple's offer was FRAND, that Motorola's pursuit of an injunction was not necessary to protect its commercial interests, and in particular its right to obtain appropriate remuneration for Apple's use of its telecommunication SEPs in Germany, and that Motorola's position was adequately protected by the opportunity to secure a judicial determination of FRAND royalties and the payment of damages through action before the German courts. The Commission concluded that in the exceptional circumstances of the case and in the absence of an objective justification, Motorola had abused its dominant position by seeking and enforcing an injunction against Apple on the basis of its German GPRS SEP.

60. The judge thought this decision was firmly in Huawei's favour but that it was based on the view that a licence limited to Germany was FRAND. We agree with him. That is the basis of the decision. But we are not persuaded that the Commission was expressing a concluded view that in other circumstances a worldwide licence would not be FRAND. Indeed the Commission said in terms (at, for example, [437]) that

Motorola had not advanced any credible arguments as to why, in light of the offer Apple had made, the pursuit of an injunction was necessary to protect its legitimate commercial interests, implying that, in another case, the position might be different. Be that as it may, if it was the view of the Commission then it is one it has since modified. This is apparent from a communication from the Commission, the Council and the European Economic and Social Committee dated 29 November 2017 (COM (2017) 712 final) ("the November 2017 EU Communication"). Here it is emphasised, so far as relevant to this ground of appeal, that once a standard has been established and the owners of the relevant SEPs have given an undertaking to license them on FRAND terms, the technology should be available to any potential user and that smooth licensing practices are essential to guarantee fair, reasonable and non-discriminatory access to that technology and to reward SEP owners so they continue to invest in research and development and standardisation activities. In this connection the Commission set out some key principles to foster a balanced, smooth and predictable framework for SEPs licensing. It is explained (at page 6) that there is no one-size-fits-all solution to what FRAND is and that what can be considered fair varies from sector to sector and over time. Then, at section 2.2, it continues:

> "2.2 EFFICIENCY AND NON-DISCRIMINATION
>
> The non-discrimination element of FRAND indicates that rightholders cannot discriminate between implementers that are 'similarly situated'.
>
> Given that FRAND is not one-size-fits-all, solutions can differ from sector to sector and depending on the business models in question.
>
> As mentioned above, FRAND negotiations imply good faith negotiations from both parties. Efficiency considerations can come into play as well. Transaction costs relating to the negotiation of a licence should be kept to the minimum necessary. Furthermore, in sectors where cross-licensing practices are widespread, efficiency gains related to such practices should be taken into account. These points need to be taken into account when assessing on a case by case basis whether a licensing offer is compatible with FRAND.
>
> In line with the approach presented above, the Commission considers that the same principles of efficiency support the practice of SEP portfolio licensing for products with global circulation. As noted in a recent ruling, a country-by-country licensing approach may not be efficient and may not be in line with a recognised commercial practice in the sector."

61. Here the Commission has expressly recognised the need when assessing whether a licensing offer is FRAND to take into account the circumstances of the particular sector in issue and to have regard to, among other things, the practice in that sector, the importance of non-discriminatory licensing and efficiency considerations. The Commission has also referenced the decision of Birss J the subject of this appeal as an illustration how these principles of efficiency may support the practice of portfolio

licensing for products with a global circulation, and that a country-by-country approach may not be efficient or conform to the recognised practice in the sector. Then, in section 2.4, it is said in terms in a summary table that:

> "For products with a global circulation, SEP licences granted on a worldwide basis may contribute to a more efficient approach and therefore can be compatible with FRAND."

62. Counsel for UP rely upon two decisions in the German Regional Courts which they say, and we agree, are consistent with the approach explained in the November 2017 EU Communication. Both decisions were appealed but it is our understanding that, in each case, no adverse comment was made about the reasoning to which we refer on this issue.

63. In *Pioneer v Acer* 7 O 96/14, a decision of the Regional Court of Mannheim given on 8 January 2016, the proprietor of a German SEP sought an injunction to restrain the defendant from infringing its patent. The claimant offered to grant a worldwide portfolio licence to the defendant's parent company, but the defendant was only prepared to take a licence in respect of claimant's German patent rights. The decision is one to which we must return in addressing the third ground of appeal but for present purposes we can limit our observations to the court's consideration of the geographical scope of a FRAND licence. The court explained that the course of behaviour required by the jurisprudence of the CJEU had the aim of leading the parties to enter into licence agreements which conformed to customary practice in the business area in issue; and further, that it was the experience of the court that the usual practice of parties such as those before it, where the claimant had SEPs in different countries and the group of which the defendant was part was active in a number of those countries, to agree a worldwide portfolio licence with the group parent company rather than a series of licences for different territories. The court also explained that if the defendant's offer to take a licence only in respect of Germany were accepted, the claimant would be forced to go separately to each country in which its rights subsisted to enforce those rights; and that the defendant's behaviour was not that of a reasonable licensee. The court held that in these circumstances the defendant's offer to take a licence in respect of the claimant's German patent rights was not FRAND.

64. Just a little while later, on 31 March 2016, the District Court of Düsseldorf gave judgment in the case of *St Lawrence v Vodafone* 4a 073/14. Here the claimant sued the defendant for infringement of a SEP in the area of broadband language encoding and transmission, and it offered to license this patent and its family members around the world to the defendant in a portfolio licence. This is another decision to which we must return in considering the third ground of appeal but, in the same way as the decision in *Pioneer v Acer*, we think it also gives a useful insight into the current approach of the German courts to portfolio licensing. The court observed that, in assessing whether a worldwide portfolio licence is FRAND, it is relevant to consider the practice in the industry; that if such worldwide portfolio licences are the normal practice then an offer of such a licence will be FRAND unless the circumstances of the case justify a different conclusion; and that a patent proprietor has a legitimate interest in controlling all of the activities of a group of companies implementing its patented technology around the world, instead of having to negotiate licences or pursue proceedings country by country.

65. Counsel for Huawei have placed reliance on three decisions of the US District Court. The first, *In re Innovatio IP Ventures LLC* Case No 11 C 9308, 2013 WL 5593609 (N.D. 1:11), was a decision of District Judge Holderman given on 3 October 2013 in the US District Court for the Northern District of Illinois, Eastern Division, in proceedings in which Innovatio sued various users of wireless internet technology for infringement of a number of its US SEPs. After discovery but before claim construction, the parties and the court agreed that the best course would be for the court to evaluate the potential damages available to Innovatio in the event the defendants were found to infringe. The court determined the RAND rate for the licensing of those US SEPs. However, there is no suggestion in the report that either side contended for any other approach.

66. The second, *Realtek Semiconductor Corporation v LSI Corporation* Case No C-123451-RM, LSI, was a decision of District Judge Whyte given on 16 June 2014 in the US District Court, Northern District of California, San Jose Division. Here Realtek began proceedings asserting that LSI had breached their RAND licensing obligations by beginning proceedings for infringement before approaching Realtek with a RAND licensing offer. One of the issues addressed in this particular decision was whether a jury's earlier finding of the RAND royalty rates for two of LSI's SEPs was sustainable. There is no suggestion in this decision that the geographical scope of a RAND licence was ever in issue.

67. The third, *Apple Inc v Qualcomm Inc* Case No 3:17-cv-00108-GPC-MDD, was a decision of District Judge Curiel given on 7 September 2017 in the US District Court, Southern District of California in proceedings brought by Apple against Qualcomm in respect of its use of various Qualcomm SEPs for the 3G-UMTS and 4G-LTE standards. This particular decision addressed a request by Qualcomm for an anti-suit injunction preventing Apple from pursuing the various foreign claims it had also instigated on the basis that they were duplicative of the claims before the US court in which that court would determine whether Qualcomm had satisfied its global FRAND commitment to ETSI and to Apple. In those foreign proceedings Apple was seeking, among other things, declarations that certain SEPs subsisting in at least some of the territories the subject of those proceedings were invalid and that Qualcomm had engaged in actionable anti-competitive behaviour. But in none of those foreign proceedings did Apple seek a determination of a FRAND rate for Qualcomm's global patent portfolio.

68. Judge Curiel refused the application essentially on the basis that the global FRAND issue would not dispose of the foreign proceedings because Apple was seeking in those proceedings, among other things, to challenge the validity of Qualcomm's patents and Qualcomm's licensing practices under foreign competition and anti-trust laws. It was in that context that the court observed (at page 22) that Apple was not obligated to accept a worldwide FRAND licence from Qualcomm and (at pages 25-26) that Apple were adopting a reasonable strategy in wanting to verify that Qualcomm's patents were valid and essential before agreeing to take a licence under the global portfolio. However, the court did not decide that it did not have authority to adjudicate on Qualcomm's claim for a global FRAND determination. Indeed the court made it clear (in footnote 5 on page 18) that it was not deciding that issue on the application before it.

69. We should also mention for completeness *Microsoft Corporation v Motorola Inc* Case C10-1823JLR, 2013 US Dist LEXIS 60233, a decision of District Judge Robart given on 25 April 2013 in the US District Court, Western District of Washington at Seattle in proceedings brought by Microsoft against Motorola in which it claimed that Motorola had made unreasonable offers to license its patents to Microsoft at RAND rates and thereby acted in breach of its RAND commitments. Here the court determined a RAND licensing rate and range for a global licence of Motorola's SEP portfolio but the decision contains no analysis of the reasonableness or otherwise of the adoption of a global licensing approach.

70. We have also been referred by counsel for Huawei to the decision of the US Court of Appeals for the Federal Circuit in *Ericsson v D-Link* 773 F.3d 1201 (Fed Cir 2014). Ericsson had sued D-Link and various other implementers for infringement of three US patents which it claimed were SEPs for inventions in the field of Wi-Fi technology. The case progressed to a jury trial where it was found that D-Link had infringed certain claims of each of the three patents and awarded damages on the basis of a unit sum per infringing device. On appeal D-Link argued that the District Court had erred in a series of respects and had, among other things, failed properly to direct the jury about how to arrive at a royalty award and the appropriate factors to take into account. The court found that the district court had indeed fallen into error by failing to instruct the jury: adequately about the RAND commitment; that the royalty must be apportioned from the value of the standard as a whole; and that the rate must be based upon the value of the invention and not the value added by the standardisation of the invention; and by instructing the jury to consider certain irrelevant factors.

71. Counsel for Huawei argue that the approach adopted in *Ericsson v D-Link* is entirely inconsistent with the global portfolio approach for which UP contends. We disagree. So far as we have been able to ascertain, the issues which arise before us in this appeal were not considered by the District Court or the Court of Appeals.

72. Counsel for Huawei also rely upon the decision of the IP High Court of Japan given on 16 May 2014 in *Samsung v Apple* No 2013 (Ne) 10043. Here the court found that certain models of Apple's iPhone and iPad infringed one of Samsung's Japanese SEPs in respect of which Samsung had given a FRAND undertaking. The court held that a party which has given a FRAND undertaking should be restricted from exercising the right to seek an injunction against a party willing to enter into a FRAND licence agreement. We detect no inconsistency between this decision and the principles we have explained. There was no suggestion the court found or was asked to find that a global portfolio licence cannot be FRAND.

73. The final court decision to which we have been taken by counsel for Huawei on this issue is that of the Guangdong High People's Court in *Huawei v InterDigital* (2013) Guangdong High Ct. Civ. Third Instance No 305. By way of background, IDC and Huawei had negotiated for a considerable period of time over the terms of a licence by IDC to Huawei of its patent rights. No licence was agreed, however. In 2011 IDC began patent infringement proceedings against Huawei in Delaware. Later in 2011, Huawei began proceedings in China against IDC seeking a determination by the court of the FRAND royalty rate for a licence by IDC to Huawei under IDC's Chinese SEPs. One of the issues before the Chinese court was whether various earlier offers IDC had made to Huawei to license its patent rights on a worldwide basis were FRAND. The trial court settled the royalty rate of a licence under IDC's Chinese

SEPs. It also found that none of those earlier offers was FRAND, but not because each was an offer of a worldwide licence. Indeed, it appears the trial court thought that a worldwide licence of IDC's SEPs would be both reasonable and feasible. On appeal, the High People's Court upheld the decision of the trial court. Again, however, it did not make any finding or make any observation to the effect that a worldwide licence could not be FRAND.

74. We therefore reject the submission made to us by counsel for Huawei that the approach adopted by Birss J in these proceedings loses sight of the territorial nature of patent proceedings and does not accord with the approach taken in other jurisdictions. It is true that Huawei's position derives support from the decision of the Commission in *Motorola* but the views of the Commission as expressed more recently in the November 2017 EU Communication are in our view both consonant with the approach of the judge and consistent with the other decisions to which we have been taken and which we have summarised. So we must now turn to the other criticisms of the judge's approach and the practical difficulties to which it is said to give rise.

Is the judge's approach wrong in principle?

75. Huawei contends that the judge's approach is wrong in principle for three reasons:

i) it pays insufficient heed to the principle of comity or to the appropriate limitations on the exercise of the court's powers in cases touching on foreign patents;

ii) it necessarily and wrongly presumes infringement of at least some valid SEPs in territories outside the UK; and

iii) it is contrary to public policy and disproportionate.

76. We will address these points in turn and will begin with comity and the limits of the court's powers in relation to foreign patents. Counsel for Huawei have developed this in the following way. They argue that it is well established by authority at the highest level that the courts of this country must respect the sovereignty and autonomy of other states. Further, the courts of this country do not adjudicate on the validity of foreign patent rights and so they ought not to grant relief of what amounts to damages and royalties under those rights, save with the agreement of the parties. In particular, they continue, the courts of this country should not usurp the right of a foreign court to set the terms and rates which apply in the foreign court's market and in respect of the corresponding foreign monopoly rights.

77. Counsel for Huawei continue that these fundamental points are not merely theoretical considerations for two reasons: first, the effect of Huawei entering into a global licence on the terms settled by the judge would bring to an end the purpose of ongoing litigation in China and Germany, and this would amount to indirect interference with foreign litigation relating to foreign property; and secondly, different jurisdictions have adopted materially different approaches to the assessment of FRAND (and RAND) royalty rates for their own jurisdictions. On this second issue counsel point to the decisions of the US courts in *Microsoft v Motorola*, *In Re Innovatio* and *Ericsson v D-Link*, in each of which it was held that it was inappropriate to award to the patentee any part of the value attributable to incorporation of a patent in the relevant

standard, a view with which the judge disagreed; and to the decisions of the Chinese court in *Huawei v InterDigital* and the Higher Regional Court of Düsseldorf in *Sisvel v Haier* 66/15 OLG Dusseldorf, 15 March 2017, in which approaches were taken on the issue of non-discrimination which differ from those of the judge.

78. In the result, counsel for Huawei continue, Birss J has determined and required back payment of damages and ongoing royalties for the whole world, including the US, China and Germany, on a different basis from that which the competent courts of those jurisdictions would have adopted had they been faced with an infringement case in respect of the SEPs subsisting in those territories. They say there is no justification for such an approach and that it overrides the jurisdiction of those courts.

79. In our judgment, these submissions confuse and elide two separate but related matters: first, the scope of these proceedings for patent infringement, and secondly, the scope and effect of the undertaking UP has given to ETSI. The only patent rights in issue in these proceedings have been SEPs that UP owns in this jurisdiction. The judge has found in the technical trials that two of those SEPs are valid and essential and it follows that Huawei's activities in this jurisdiction have amounted to an infringement of them. The judge has made no finding as to the validity or essentiality of any SEP in any other jurisdiction.

80. The next matter is the meaning and effect of the undertaking that UP has given to ETSI in relation to the SEPs in its patent portfolio, wherever those rights may be situated. This is a single undertaking, the construction, validity and enforcement of which are governed by French law. As we have explained, the judge decided, as he was entitled to decide, that this undertaking is enforceable by third party implementers and it requires a SEP owner to grant a licence to any such implementer under its SEPs on FRAND terms. One of the critical questions for the judge in this trial was what those FRAND terms were for a licence by UP to Huawei and, in particular, whether UP was required by its undertaking to grant to Huawei a licence under its SEPs territory by territory or whether it could meet its obligations to ETSI by offering to Huawei a worldwide licence. The judge decided this issue in favour of UP. In doing so he was not adjudicating on issues of infringement or validity concerning any foreign SEPs. Nor was he deciding what the appropriate relief for infringement of any foreign SEPs might be. He was simply determining the terms of the licence that UP was required to offer to Huawei pursuant to its undertaking to ETSI. It was then a matter for Huawei whether it was prepared to take that licence, and to do so in its full scope. It could not be compelled to do so, and if it chose not to, the only relief to which UP would be entitled would be relief for infringement of the two UK SEPs the judge had found to be valid and essential.

81. We therefore reject the submission that the judge has in some way usurped the right of foreign courts to decide issues of infringement and validity of patent rights subsisting in their respective territories, or of the appropriate relief to be granted if infringement is established. Similarly, we do not accept that the judge's approach pays insufficient heed to the principle of comity.

82. We are also not persuaded that the judge's approach creates practical problems in the manner for which Huawei contends. The judge made clear that a FRAND licence should not prevent a licensee from challenging the validity or essentiality of any foreign SEPs and should make provision for sales in non-patent countries which do

not require a licence, and so proceedings such as those between these undertakings in Germany and China are not rendered purposeless.

83. It may be true that the approaches of courts around the world to the assessment of royalties under a worldwide licence are not at present wholly aligned but this is not surprising given the developing nature of this jurisdiction. We also consider it relevant that, subject to the discrimination issue the subject of ground two of the appeal, no challenge is made in this appeal to the royalty rates and the basis for their assessment which the judge found to be FRAND in all the circumstances of this case. As for the two particular instances of allegedly divergent approaches, it was common ground between the parties' expert economists, Professor Neven and Dr Niels, that the FRAND scheme did not mean that a patentee could not appropriate some of the value associated with the inclusion of its technology into a standard and the value of the products using the standards, and neither side disputed this. The judge recognised that he might be differing from certain parts of the decisions in *In Re Innovatio* and *Ericsson v D-Link* but since neither side was taking the point it was not necessary for him to look into it further. The second area of divergence is said to be in relation to discrimination and this is a topic we address under ground 2 of the grounds of appeal. Suffice it to say at this stage that neither of these areas of divergence leads us to think the judge has fallen into error as a matter of principle.

84. Huawei's second point under this head is that the judge's approach necessarily and wrongly presumes infringement of at least some valid SEPs in territories other than the UK. It contends that a party that agrees to a global licence or the assessment of such a licence may have effectively consented to forgo its right to challenge the validity and essentiality of the patents owned by the prospective licensor. But a court ought not to compel a party to do so, particularly since it is well known that courts in different jurisdictions have different approaches to issues of infringement and validity and in any event do not always come to the same conclusion.

85. Counsel for Huawei have developed this point by focusing on the position in China and Germany. As for China, they say, entirely fairly, that UP only has five relevant SEP families in China and yet it is of critical importance to Huawei. It is not only Huawei's largest market but, in addition, it is where Huawei manufactures the products it sells in China and around the world, including territories where UP has no patent rights at all. Indeed, they continue, the total proportion of Huawei's sales in respect of which UP's claim to a royalty depends on infringement by manufacture or sale in China is about 64%; and correspondingly, if Huawei does not infringe any valid Chinese SEPs, there is no basis for demanding a royalty on those sales.

86. The same point can be made about Germany, argue Huawei's counsel. Thus far, the outcome of the proceedings in Germany is that UP has failed to establish infringement by Huawei of any German SEP for 4G. But the effect of the licence settled by the judge is that Huawei must pay licence fees for Germany at the rate the judge has determined.

87. Counsel for Huawei also submit that the unfairness of the position is also highlighted by the terms of the judge's licence in respect of past sales. Huawei must take a licence globally from January 2013, the time it started the activities complained of. In effect, therefore, Huawei must pay what amount to back damages on global manufacture and sales on the strength of a finding of infringement of two UK SEPs only and in

circumstances where there is ongoing litigation in Germany and China. This, they say, is neither fair nor reasonable.

88. We do not accept that the judge's approach wrongly assumes validity and infringement of UP's foreign SEPs or that a licensee is required to forgo its right to challenge the validity and essentiality of those SEPs. To the contrary and as we have explained, the judge stated in terms that a FRAND licence should not prevent a licensee from challenging the validity and essentiality of licensed patents and should make provision for sales in non-patent countries. It is of course true that the licence provides for payment of royalties in respect of the use by Huawei of UP's whole portfolio of SEPs but the alternative would be to require UP to bring proceedings in each territory in which its SEPs subsist. That is not how a reasonable and willing licensor and licensee in the position of, respectively, UP and Huawei would behave; it would be a blue print for hold-out; and, as Mr Cheng accepted, the costs of such litigation for UP would be prohibitively high. So the outcome would be that, as a result of its FRAND undertaking, UP would not be able to secure an injunction in any jurisdiction and would not be able to secure payment of royalties for those jurisdictions in which it could not afford to bring proceedings.

89. As for the position in China and Germany, we have no difficulty accepting that China is a territory of particular importance to Huawei and that Germany too is a significant market. But here it is important to have firmly in mind that the mechanism arrived at by the judge for dealing with the position in different countries is not challenged on this appeal. Counsel for UP helpfully summarised that mechanism in the following terms which we do not understand to be contentious:

i) The royalty rate is tied to the country where Huawei sells its equipment.

ii) The rate applicable will be at one of two levels (either at a higher or lower rate) which depends on the extent of patent protection in a given territory.

iii) China receives special treatment and the royalty rate is the lower tier regardless of the extent of patent protection in China.

iv) Adjustments are made annually to which territories are in the upper and lower tiers to take account of any change in the patent landscape.

v) Royalties are payable in respect of sales in territories where there are no patents at the lower (Chinese) rate because the equipment is manufactured in China.

90. We agree that the effect of the licence is that Huawei must pay royalties in respect of manufacture and sales in China and sales in Germany in accordance with this mechanism. But this provides no foundation for the submission that the judge has erred in principle in deciding that a willing licensor and licensee in the position of the parties would have agreed a global licence.

91. The third argument advanced by Huawei is that the judge's approach is contrary to public policy, and that is so for four reasons. First, there is a clear public policy that parties ought to attempt to negotiate a licence before they begin proceedings, and UP's failure to do so is a matter of which the judge took no proper account. To the

contrary, his approach in settling the terms of a global licence which Huawei is obliged to take despite UP not having approached it before beginning proceedings is one which encourages a race to sue.

92. Secondly, the judge's approach encourages over-declaration of patents as SEPs. Over-declaration is a substantial problem as illustrated by the judge's assessment that up to 72% of declared SEPs are not truly essential.

93. Thirdly, the judge's approach frustrates the obvious public policy enshrined in the competition rules which preclude an obligation to pay licence fees on patents which have been granted in error without there being any opportunity to terminate the licence that contains that obligation.

94. Fourthly, the judge's approach flies in the face of the policy of Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 ("the IP Enforcement Directive") which requires relief for patent infringement to be proportionate and that it be applied in such a way as to avoid the creation of barriers to legitimate trade. To be proportionate it must pursue a legitimate objective, be suitable or appropriate to achieve that objective, and go no further than necessary. Here counsel for Huawei argue that UP had a legitimate objective in pursuing these proceedings, namely to secure the payment of royalties for infringement of its patents in the UK. But Huawei undertook to take a FRAND licence in respect of the UK, and did so on the first occasion on which it was offered a licence on FRAND terms. In these circumstances it was neither necessary nor proportionate for the judge to impose an injunction.

95. We can deal with these points quite shortly. The first is founded upon the decision of the CJEU in *Huawei v ZTE* which we consider in detail addressing the third ground of appeal. We agree that this decision imposes upon SEP proprietors an obligation to comply with specific requirements when bringing actions against alleged infringers for injunctive relief. But we do not accept that the imposition of these requirements or the fact that a SEP owner may fail to comply with one or more of them undermines the approach adopted by the judge as a matter of principle.

96. As for the second point, we recognise the existence of the practice of over-declaration and we acknowledge that it is a problem. The judge described it in his judgment at [201] to [202]. In summary, very many more patents are declared to be essential than are truly essential and the fact that royalty rates are negotiated by counting patents creates an incentive to over-declare. In the end, there was no real dispute between the parties to these proceedings as to the number of truly relevant SEPs in UP's portfolio; but the parties were a long way apart on the number of truly relevant SEPs in the market as a whole, and this was the subject of a good deal of evidence which the judge evaluated in considerable detail. However, we do not accept that the practice of over-declaration undermines the judge's approach to FRAND licensing. His approach was based upon the facts that in the real world and despite over-declaration, patent licensing generally relies upon patent counting, adjustments are made to take into account essentiality and, as the judge found at [201], no-one tries to take account of validity. Further and as we have seen, depending on the size and extent of the SEP owner's portfolio and the nature and extent of the prospective licensee's business, the parties to such negotiations will usually agree global (or at least multi-territorial) portfolio licences because it is so inefficient to negotiate and operate licences territory by territory. In these circumstances, any public policy considerations around over-

declaration could not begin to justify a departure from normal practice in a FRAND determination of the kind which the judge was required to carry out; nor could it justify condemning SEP owners such as UP with large portfolios to impossibly expensive litigation in every territory in respect of which they seek to recover a royalty.

97. The third point is no more persuasive than the second. The judge has found that the licence he has settled conforms in its scope to normal practice in the industry. What is more, such licences do not guarantee revenues based on patents granted in error for licensees can challenge the validity and the essentiality of each of the licensed SEPs.

98. The fourth point is equally unmeritorious. The legitimate objective of UP in pursuing the proceedings in this country was first, to establish infringement of its UK SEPs; and secondly, to determine the scope and terms of the FRAND licence it was required to offer to Huawei. It has always taken the position that in all the circumstances a FRAND licence would be a worldwide licence under its whole SEP portfolio and that if it were correct, it would insist on Huawei taking such a licence if it wished to avoid an injunction. The judge having found in UP's favour on this issue, it became a matter for Huawei whether to accept the licence. In these circumstances there was nothing unnecessary or disproportionate about the approach taken by the judge. Huawei stood before the court without a licence, but it had the option of taking one.

99. For all of these reasons we reject the submission that the judge's approach was wrong in principle.

Does the judge's approach create significant practical problems?

100. Huawei contends that the judge's approach will lead to significant practical problems and inconsistencies and that many of these are illustrated by the global licence he has settled.

101. Counsel for Huawei have developed this contention as follows. In summary, they submit: if any court can set a global rate then there will be a race between the SEP owner and the implementer to choose what each perceives to be the most favourable jurisdiction, with the likelihood of anti-suit injunction applications; there may be a divided system with some courts settling global licences and others not; the position of the parties in relation to cross-licensing will become impossible; implementers may be faced with the threat of injunctions which effectively deprive them of their ability to defend their FRAND positions before the courts of the territories where the relevant SEPs subsist; courts will set rates for SEPs over which they have no jurisdiction; the judgment of a single court in a jurisdiction in which an implementer does not wish to litigate may create a *res judicata* as between it and the SEP owner in relation to the terms of a global licence, and this might be very unfair; SEP owners will be able to choose which SEPs to include in a global licence to be settled by the court as it suits them; and the judge's approach will increase the costs of implementers doing business in the UK.

102. Counsel for Huawei then point to the global licence settled by the judge. They submit this guarantees global revenues regardless of whether any underlying rights in major jurisdictions have been found to be valid or infringed. In particular, they continue, UP does not now need to assert any rights in China, where Huawei manufactures and

makes most of its sales. Further, if Huawei revokes all of UP's patents in China, it must still pay royalties in respect of that territory.

103. There are other problems, they continue. UP LLC has never made a claim yet it now has a licence worth tens of millions of dollars as a consequence of the judge's approach to global portfolio licensing. On the other hand, had it not wanted to participate it could not have been compelled to do so. What is more, it could never have brought a claim for infringement in the UK because it does not own any UK SEPs.

104. We do not find these arguments persuasive. The judge was required to determine the meaning and effect of the FRAND undertaking which UP had given and Huawei was seeking to enforce. That is what he proceeded to do. He found that, having regard to the parties and in all the circumstances of this case, UP's undertaking to ETSI would be met by offering Huawei a global licence in respect of all of its SEPs on the terms he settled. We do not accept that this approach is likely to cause any problems of a kind with which commercial courts around the world are not familiar or which might impact upon the meaning and effect of the undertaking UP has given to ETSI. It is true that a court in one country will decide, as between the parties, whether a global or multi-territorial licence is FRAND but that is inevitable and we see nothing unfair about it, and it most certainly does not deprive a licensee from challenging the validity and essentiality of the SEPs in any jurisdiction where it may choose to do so.

105. As for the particular licence settled by the judge, we recognise that, if Huawei accepts that licence, it must pay royalties in accordance with its terms. But there is nothing extraordinary about that. So too must the licensees under all the global licences that other undertakings in the global telecommunications sector have agreed, and it is what reasonable undertakings in the position of the parties would have agreed. Huawei is also wrong to suggest it is compelled to take the licence. It is not, and if chooses not to do so then the only relief to which UP will be entitled will be the normal relief available to a successful patentee in this jurisdiction.

106. There is nothing in the argument about UP LLC either. This is not a point which was taken before the judge and rightly so. It would be absurd if affiliated companies could game the system by dividing a portfolio of SEPs between them, and the undertaking given to ETSI makes it clear they cannot. It is made on behalf of affiliated companies and it applies not just to the declared patents but also to the families of patents to which the declared patents belong.

Are the judge's reasons in favour of a global approach well-founded?

107. Huawei then attacks three aspects of the judge's reasoning in arriving at the licence he held to be FRAND. We will take them in turn.

108. First, it attacks the judge's findings at [543] and [544] which we have set out at [38] above. In short, the judge held here that the size and scope of UP's patent portfolio and the multinational nature of Huawei's business were such that a willing licensor and licensee acting rationally and reasonably would agree a worldwide licence. Indeed, the judge continued, the alternative, country by country licensing, would be "madness" and something that "no rational business would do if it could be avoided".

109. In this connection counsel for Huawei repeat their submission that the judge's approach is flawed in principle for it shifts the burden onto the implementer to pay royalties until it can show that patents in issue are invalid or inessential. They then submit that the judge's approach in the circumstances of this case ignores commercial and legal realities for, had the judge adopted a national approach to licensing, no-one other than UP would have suggested that it would need to litigate everywhere. The jurisdiction of central importance is China for this is where the bulk of Huawei's business is conducted, and the Chinese courts have shown themselves willing and able to determine FRAND rates for Chinese patents as demonstrated by the decision in *Huawei v InterDigital*. This was and remains the natural and proper forum for determining a FRAND rate in respect of Huawei's activities in that country. Further, the judge's decision would carry great weight with a foreign court, including a court in China, and if and in so far as the foreign court were to decline to follow the judge's methodology, this would simply demonstrate how inappropriate it was for the judge to adopt a global licensing approach.

110. We have rejected the submission that the judge has erred in principle and there is no need to repeat our reasons for doing so. We must now focus on the submission that the judge's decision in the circumstances of this case ignores the commercial and legal realities. The following points are, we think, material. First, the focus of the judge's reasoning at [543] and [544] of his judgment is not upon litigation but upon the behaviour of a licensor and licensee in the positions of, respectively, UP and Huawei who are acting reasonably and on a willing basis. The judge found that, having regard to the size and extent of UP's SEP portfolio and the multinational nature of Huawei's business, such a licensor and licensee would regard country by country licensing as madness. The reason is given by judge at [544]: such an approach would be needlessly inefficient because of the effort required to negotiate and agree so many licences and then to keep track of so many different royalty calculations and payments. The judge arrived at this conclusion having heard a good deal of evidence and we can see no possible justification for interfering with it.

111. Secondly, we do not accept counsel for Huawei's submission in any event. On the assumption that only a country by country approach to licensing is FRAND, a patentee in the position of UP would face not just the needless expense of negotiating and managing licences on a country by country basis but also the problem of dealing with a potential licensee which is holding-out and refusing to engage in a reasonable way with the negotiation process. The patentee must then bring proceedings country by country to secure the payment of the royalties to which it is entitled. But unlike a normal patent action, where an unsuccessful defendant faces the prospect of an injunction, the reluctant licensee would know that, on the assumption it could only be required to take licences country by country, there would be no prospect of any effective injunctive relief being granted against it provided it agreed to pay the royalties in respect of its activities in any particular country once those activities had been found to infringe. So it would have an incentive to hold out country by country until it was compelled to pay. We therefore reject the submission that UP's position would be adequately protected were it to bring proceedings in China or any other single country. Such proceedings would not secure the payment of all the royalties to which it is entitled in respect of Huawei's activities in the other countries in which it carries on business.

112. Thirdly, there is a suggestion in Huawei's submissions that this was not the appropriate or natural forum in which to litigate this dispute. In our judgment it is far too late to take this kind of point. If Huawei wished to have this dispute decided in another forum then it should have applied for a stay of the FRAND issues at an early stage. It did not do so. Instead, shortly after Birss J had given judgment in the form of order hearing on 7 June 2017 ([2017] EWHC (Pat)), Huawei began proceedings in the Shenzhen court in China in which it alleged, among other things, that the UK court had hijacked the determination of the FRAND licence as between it and UP, and that the injunction sought by UP and granted by the UK court and UP's conduct in seeking that relief were wrongful and in breach of competition law. UP then sought an anti-suit injunction from the UK court to restrain Huawei from pursuing these Chinese proceedings on the basis they were vexatious and oppressive and an abuse of process. That application came before Henry Carr J on 12 October 2017. On the morning of the hearing it was compromised upon Huawei giving undertakings, but the issue of costs remained live. In his judgment given on that day ([2017] EWHC 2832 (Pat)), Henry Carr J expressed the view that, having looked at the Chinese proceedings, he was in no doubt that UP's contentions were entirely well founded. He continued that the Chinese proceedings should never have been commenced and constituted hold-out and that had the matter not been compromised, he would have granted the injunction sought. He then considered the undertakings that Huawei had given in relation to the Chinese proceedings and concluded that, in respect of the anti-suit injunction, UP had won and was in principle entitled to its costs.

113. We therefore reject Huawei's contention that the judge's decision ignores the commercial and legal realities of this case. To the contrary, we think the judge was fully alive to those commercial and legal realities and took them into account in an entirely appropriate manner.

114. Huawei's second complaint is focused on the judge's concern to simulate "real negotiations" and "common industry practice". Here Huawei's counsel submit that the judge had in mind the prevalence of negotiated global licences. But, they continue, he overlooked the fact that no willing licensor or willing licensee would rely entirely upon two UK SEPs as the basis for a global licence, especially when the real subject matter of the dispute lay in China. In the real world, Huawei and UP would consider the strengths and vulnerabilities of UP's worldwide portfolio, not its UK portfolio; and further, in the judge's attempt to simulate common industry practice, he treated findings of infringement of two patents in the UK as enough to trigger an enquiry into and obligation to pay global royalties. In the result UP is using the threat of an injunction in the UK to leverage Huawei into paying royalties in respect of its global activities and this is the very thing the FRAND undertaking was intended to avoid.

115. In our view these submissions betray a considerable confusion of thought. First, there is no question of a willing licensor and licensee relying upon two UK SEPs as a basis for a global licence. It has formed no part of UP's case or the judge's reasoning that they would. The basis for the judge's finding that a willing licensor and a willing licensee in the position of, respectively, UP and Huawei would agree a global licence was the size and extent of UP's SEP portfolio, the global nature of Huawei's business and the inefficiencies inherent in any other approach.

116. Secondly, there was, as we have said, no real dispute of principle about how to work out what was or was not the appropriate FRAND rate for a global licence, at least in

general terms and subject to the issue of non-discrimination. The global royalty rate reflects an assessment of the whole portfolio under licence and one approach for carrying this out involves determining the value of UP's portfolio relative to that of the industry as a whole. The exercises carried out by both parties in support of their respective cases were, subject to one point, based on patent counting and the assessment of how many truly essential patents were involved. But no one tried to take account of validity. The judge heard a good deal of expert and factual evidence about these matters and he carried out a thorough and extensive assessment of it all. Moreover, Huawei has not challenged the outcome of that assessment on this appeal. It does not dispute the royalty rates and structure that he has settled.

117. Thirdly, we think it is unfair to say that UP is using the threat of an injunction to leverage Huawei into taking a global licence. It is up to Huawei whether it takes a global licence or submits to the injunction in the UK and it is also important to have well in mind that the global licence settled by the judge is, subject to Huawei's other points, FRAND. There is nothing unfair or unreasonable about its terms.

118. Huawei's third complaint is directed to the judge's finding that, as between two undertakings, the potential licensor and licensee, there is only one set of FRAND terms. Counsel for Huawei argue that he relied upon this finding to support his view that where the potential licensor's patent portfolio is too large to litigate every patent and where the potential licensee carries on business around the world then only a global licence will be FRAND. Put another way, the judge rejected a country by country licensing approach at least in part because he was of the view that, in any one case, a national and a worldwide licence cannot both be FRAND. Counsel continue that the judge's adoption of this "only one set of terms" theory led him to discard all indicators of principle and practice that a national licence is capable of being FRAND. What is more, the judge did not explain how the terms he set for the global licence were the *only* set of FRAND terms for such a licence, nor could he have done when it was perfectly clear that his approach to, for example, valuation differed from that used by courts in other jurisdictions.

119. The judge's view that, in circumstances such as those of this case, only one set of terms can be FRAND was, counsel for Huawei continue, based on two matters: first, the judge's view of the economic evidence before him; and secondly, a problem he had raised in his earlier decisions in *Vringo v ZTE* [2013] EWHC 1591 (Pat) and [2015] EWHC 214 (Pat), namely what is to be done where each side in a dispute such as this has made a FRAND offer, but those offers are different. They also submit that, on a proper analysis, the economic evidence did not support the judge's "only one set of FRAND terms" theory and that:

i) he ought to have found that it is entirely possible to have different sets of FRAND terms in any one case;

ii) he ought to have found that the terms he settled for the UK only licence were FRAND; and,

iii) if UP refused to offer that UK only licence to Huawei, he ought to have refused to grant an injunction.

120. In summary, counsel for Huawei submit that the judge settled the terms of a UK licence which he would have found to be FRAND but for his conclusion on worldwide licensing. This UK licence provides for the payment of royalties for all relevant SEPs in the UK. The royalty rate is higher than the global rate to account for the fact that a national licence is less efficient than wider global licensing. Huawei ought to be able to enter into this licence and it would cover all of its acts in the UK.

121. We have come to a different conclusion from that of the judge on the question whether there can be only one set of FRAND terms for any given set of circumstances. Patent licences are complex and, having regard to the commercial priorities of the participating undertakings and the experience and preferences of the individuals involved, may be structured in different ways in terms of, for example, the particular contracting parties, the rights to be included in the licence, the geographical scope of the licence, the products to be licensed, royalty rates and how they are to be assessed, and payment terms. Further, concepts such as fairness and reasonableness do not sit easily with such a rigid approach. In our judgment it is unreal to suggest that two parties, acting fairly and reasonably, will necessarily arrive at precisely the same set of licence terms as two other parties, also acting fairly and reasonably and faced with the same set of circumstances. To the contrary, the reality is that a number of sets of terms may all be fair and reasonable in a given set of circumstances.

122. We agree with Huawei that the judge relied on two matters in coming to a contrary conclusion. The first was the economic evidence. The judge observed at [148] that, from the point of view of economists, the FRAND royalty rate was the rate which the parties in a given set of circumstances would converge upon and agree to. Then, at [164], he appeared to rely once again on the economist's view in concluding that, for a given set of circumstances, there will be only one set of FRAND terms and one FRAND rate.

123. The economic evidence did not support such an inflexible approach, however. Dr Niels, UP's expert economist, explained in his second report that FRAND was a range for all practical purposes. Dr Neven, Huawei's expert economist, said that there are different combinations of contractual clauses including royalties that can be deemed to be FRAND, but that for a given set of contractual clauses there is only one level of royalty payments that will be agreed upon.

124. The second matter relied upon by the judge was the problem he had identified in his two *Vringo* decisions and to which we have referred. He thought one of the merits of the single set of FRAND terms approach was that it eliminated this problem. He also said that if more than one set of terms can be FRAND then the *Vringo* problem cannot be solved in a fair way.

125. In our judgment this is more of a theoretical problem than a real one. If the SEP owner and prospective licensee cannot agree upon the terms and royalty rates of a FRAND licence and the question of what is FRAND falls to be decided by a tribunal, whether a court or an arbitrator, then the tribunal will normally declare one set of terms as FRAND and that will be the set of terms the SEP owner must offer to the prospective licensee. If, however, the outcome of the proceedings is that two different sets of terms are each found to be FRAND then in our judgment the SEP owner will satisfy its obligation to ETSI if it offers either one of them. It will in that way be offering an irrevocable licence of its SEPs on FRAND terms.

126. Counsel for Huawei submit this outcome will create injustice in a case where, as here, the real difference between the parties is whether a global or a national licence is FRAND. If both are FRAND then, counsel continue, the tribunal should limit its consideration to the particular jurisdiction where it is situated. Further, it would be unjust for the SEP owner to be given the opportunity to use the threat of a national injunction to require the prospective licensee to take the global licence for this would amount to a form of international coercion.

127. We disagree. For the reasons we have given earlier in this judgment, this submission involves an elision of two separate but related matters: first the relief to which a SEP owner is entitled if it establishes infringement of its monopoly right, and secondly, what the SEP owner must do to satisfy the undertaking it has given to ETSI. Moreover, the term coercion is used in this context to imply improper duress or compulsion. But, if both the global and the national licence were FRAND, the SEP owner would be guilty of no such behaviour by offering the global licence. That global licence would, on this hypothesis, be fair, reasonable and non-discriminatory. It would then be a matter for the prospective licensee whether to accept it.

128. We must now consider the application of these principles in this case and consider whether, as Huawei contends, the judge fell into error in deciding that in the circumstances of this case only a global licence would be FRAND and whether he ought also to have found that a UK licence could have been FRAND. We have no doubt that he did not. As we have seen, the judge found that a licensor and a licensee acting willingly and reasonably would have regarded country by country licensing as madness; and further, that no rational business would have done this if it could be avoided. This language is not capable of accommodating a finding that a national licence could also be FRAND. Further, it is no answer to say that the judge proceeded to settle the terms of a UK FRAND licence. He did so only on the basis that these critical earlier findings were wrong and Huawei has not begun to show that they were.

Conclusion on ground 1

129. The judge was entitled to find that in all the circumstances only a global licence would be FRAND. He fell into error in one aspect of his reasoning but this had no material effect on the conclusion to which he came. Ground one must therefore be dismissed.

Ground 2 - Non-discrimination

130. This ground of appeal is concerned with the non-discrimination limb of UP's FRAND undertaking. There is a fundamental dispute between the parties as to the interpretation of this part of the obligation. It is therefore worth setting out (again) the terms of the undertaking:

> "… [UP] hereby irrevocably declares that (1) it and its AFFILIATES are prepared to grant irrevocable licenses under its/their IPR(s) on terms and conditions which are in accordance with Clause 6.1 of the ETSI IPR Policy…".

131. A licence which is in accordance with Clause 6.1 of the ETSI IPR policy is an "*irrevocable licence[s] on fair, reasonable and non-discriminatory ("FRAND") terms and conditions*".

132. Huawei's case is that the licence offered to them is not on "non-discriminatory terms and conditions", because the global royalty rate offered to Huawei is higher, much higher, than that contained in the global Samsung licence (see [8] above). Accordingly, if the judge was right to decide the first ground of appeal against Huawei, such that a global licence fell to be settled by him, then he should have fixed a royalty rate no higher than the range of royalties represented by the Samsung licence. No issue arises as to where in that range the royalty should fall, as Huawei has said that it is prepared to pay the royalty represented by the upper end of that range.

133. Broadly, the positions adopted by the parties are as follows. Huawei contends that the non-discrimination limb of the undertaking must be given its ordinary and unadorned meaning. The ordinary, unadorned meaning of "non-discriminatory" is that like situations must be treated alike and different situations differently. Thus an obligation to license upon "non-discriminatory … terms and conditions" means that the SEP owner must grant the same or similar terms to all similarly situated licensees. The judge coined the term "hard-edged discrimination" to describe the meaning contended for by Huawei.

134. UP's position is, first, that the Samsung and Huawei licences are not sufficiently equivalent or comparable transactions to engage the non-discrimination obligation at all. Secondly, if the obligation is engaged, UP contends that the obligation not to discriminate does not include a hard-edged criterion of the kind contended for by Huawei. Instead, UP contends that the "ND" limb is an integral part of the determination of the FRAND terms, which includes a benchmark royalty rate set by reference to the true value of the SEPs being licensed. A rate which is arrived at in this way, and which is available to all licensees without discriminating against them by reference to their individual characteristics, does not cease to be FRAND because the SEP owner has previously granted a licence on more favourable terms. Thirdly, and again if the obligation is engaged, UP contends 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.

135. The judge concluded that Huawei and Samsung were "similarly situated". He also concluded that the Samsung licence and the licence on offer to Huawei were equivalent or comparable. The judge went on to hold, however, that the non-discrimination obligation was either (as explained further below) a general obligation integrated into the setting of the benchmark rate, or alternatively that the asserted discrimination needed to distort competition before it could be a breach of the ETSI undertaking. Huawei had not established on the evidence that the differences between the two sets of terms - those in the Samsung licence and those in the putative licence on offer to Huawei - were sufficient to distort competition. The judge did not decide a further contingent issue, namely whether those differences were objectively justified.

136. Before addressing these arguments in more detail, it is necessary to explain a little more of the background to the Samsung licence, and the judge's findings about its

relevance to the issue of valuation of the portfolio and the identification of the benchmark rate.

The Samsung licence

137. The Samsung licence was entered into on 28 July 2016, after UP had been acquired by a company called PanOptis. Huawei relied on the licence for both the FR and the ND elements of FRAND. Thus Huawei contended that the licence was the best comparable for assessing a fair and reasonable royalty rate. An offer of a licence at a significantly higher rate was discriminatory, and thus a breach of the FRAND undertaking.

138. Under the Samsung licence Samsung paid UP [redacted] in cash and assigned a portfolio of patent families in return for a worldwide licence under UP's SEP and non-SEP portfolio until [redacted] together with a release of any past damages.

139. In order to arrive at a comparable royalty rate from the Samsung licence it was necessary to convert the lump sum cash payment into a running royalty, ascribe a value to the Samsung patents assigned to UP, take into account the value of the non-SEPs, and then assign the value between 4G, 3G and 2G. The judge found at [397] that, on certain assumptions, the 4G rate ranged from [redacted] to [redacted] and the 2G/3G rate ranged from [redacted] to [redacted]. Before turning to the context in which the licence was entered into, the judge reached a provisional conclusion that these rates raised a question mark over whether the licence was evidence of a fair and reasonable value for a licence under UP's portfolio, not least because they were significantly lower than the rates for which Huawei contended in the present proceedings.

140. UP contended before the judge that any royalty rate to be derived from the Samsung licence needed to be seen in the context of the wider arrangement between Samsung and PanOptis and the distressed financial position which UP was in when acquired by PanOptis. This depended on the evidence of Mr Ware who was the moving spirit of PanOptis.

141. At paragraphs [400] to [405] the judge related Mr Ware's account, which he broadly accepted. In summary, PanOptis was a licensing company which had offered US$75 million for the UP portfolio in March 2015, but UP wanted US$100 million and no deal was done. From July 2014 PanOptis was in commercial negotiations with Samsung, which included the possibility of Samsung taking a licence under other PanOptis telecoms patent portfolios and the possibility of a wider strategic partnership.

142. In July 2015 UP approached PanOptis again, this time with a view to PanOptis purchasing UP. In September 2015 PanOptis offered to buy UP for US$35 million. [two sentences redacted].

143. The reason (the judge found it to be "the key reason") why PanOptis was interested in this deal and why it bought UP when it did and for the price it did was in order to build trust with Samsung and because Samsung was prepared to take a licence under the portfolio in a deal in which the cash component [redacted]. The judge concluded that the long term benefits to PanOptis which would be derived from this deal were

regarded by PanOptis as important and potentially very valuable, but the deal did not give PanOptis a contractually enforceable right to the benefits derived from building trust with Samsung.

144. As to UP's worsening financial position, the judge found that, by the time it was purchased by PanOptis, UP was in serious financial trouble. The price PanOptis paid for UP was lower than the market value of the patent portfolio because of the serious financial difficulties UP was in at the time. The only licence UP had been able to agree was with Lenovo and UP was engaged in very expensive multinational patent litigation in an effort to establish its rights. By late 2015 - early 2016 UP was close to insolvency. The judge accepted Mr Ware's evidence that in March 2016 PanOptis dropped its offer from US$50 million to US$40 million specifically because of UP's worsening financial position, that it was able to purchase UP for a price which did not represent the value of UP's portfolio and that this was because UP was on the verge of insolvency. UP had told shareholders that it would run out of cash reserves in July 2016 to a significant degree as a result of the difficulties it had encountered in in trying to license the portfolio and the cost of litigation.

145. PanOptis also had a relationship with Ericsson. Ericsson was also keen that PanOptis should buy UP, which provided an additional reason why PanOptis would wish to buy UP so as to strengthen its existing strategic partnership with Ericsson.

146. The judge concluded that these findings about the context of the licence together with the findings about low rates in the licence itself supported one another. He concluded that the licence did not represent useful evidence of the market value of the UP patent portfolio.

Article 102(c) TFEU

147. We should set out Article 102(c) TFEU because it forms the backdrop to the argument between the parties about the meaning of the non-discriminatory limb of the FRAND undertaking:

> "Any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States.
>
> Such abuse may, in particular, consist in:
>
> …
>
> (c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;
>
> …".

Foreign cases on the non-discrimination limb of FRAND

148. Both parties sought to rely on decisions from other jurisdictions which had considered this limb of the FRAND undertaking. It is convenient to summarise them here, before tackling the issues which arise on the appeal.

(i) Germany

149. The Oberlandesgericht Dusseldorf considered the non-discrimination limb of FRAND in *Sisvel v Haier* 6615 (cited at [77] above). It first reviewed, at paragraphs [253] and following, the effect of Article 102(c) TFEU, observing that the rule only extended to comparable issues and circumstances. There was no obligation to treat all trading partners schematically equally. Instead, even a company having a dominant market position was not precluded from reacting differently to different market conditions. Unequal treatment was permissible as long as it was objectively justified.

150. At paragraph [256] the court said:

> "In this case, the question of whether or not unequal treatment is objectively justified can be answered by looking at, and weighing, all interests involved, which is geared to the purpose of the TFEU, namely to contribute to the development of effective, undistorted competition … What is decisive here are the type and extent of different treatment. Its admissibility depends, in particular, on whether the relative discrimination of the companies affected appears as a competitive reconciliation of interests that is determined by the respective offer in the individual case or whether it is based on arbitrariness or considerations and intentions that are alien to economically or entrepreneurially sound actions ... In view of the considerable scope of discretion that a patent holder has in such situations, not every difference in conditions can be regarded as an abuse of a dominant market position. Instead, the difference must be more than just minor in order to find that a condemnable abuse has taken place … At the same time, one must make sure, however, that the exercise of power by the dominant company does not result in the companies affected by such unequal treatment being impaired in terms of their ability to compete with each other …".

The court went on to say at paragraph [257] that these principles apply equally to a SEP holder which makes a FRAND declaration, and continued:

> "Regardless of whether such declaration is of a constitutive or declaratory nature and whether the patent holder's obligations resulting from it apply even if it does not have a dominant market position …, it certainly does not result in a different standard for nondiscrimination. With its commitment contained therein to not discriminate against license seekers, the SEP holder rather makes reference to Art. 102 c) TFEU: regarding its license terms, the SEP holder apparently wants to be bound (only) precisely to the extent required by the statutory nondiscrimination rule. Accordingly, its license offer is

> "nondiscriminatory" only if it treats the license seeker equally to other licensees or if there are good objective reasons for unequal treatment."

151. At paragraph [258] the court stated that the burden and standard of proof of discrimination rests on the party seeking the licence, but re-iterated:

> "The SEP holder's FRAND declaration has basically no effect on said burden of demonstration and proof because, with its commitment to grant nondiscriminatory licenses, the SEP holder merely complies with the regulatory requirements of Art. 102c TFEU, but does not mean to grant the license seeker a comparably better legal position".

152. The court then concluded at paragraph [260] that there had been relevant discrimination. It rejected the contention that "outliers" could be disregarded. Although it was correct that there was no general "most-favoured treatment" obligation, differences in treatment needed to be objectively justified.

153. On the facts of that case the court concluded that the licence fees were "exorbitantly higher" and therefore the difference in treatment was more than "just minor" (paragraph [263]). Objective justification had not been demonstrated (paragraph [268]). At paragraphs [270] to [273] the court considered and rejected an argument that the differences represented discounts common in the trade. It then went on to consider (paragraph [274]) whether the difference was justified by the special surrounding circumstances of the licence agreement.

154. The SEP owner sought to rely on a variety of factors (the fact that a licensee might be a "reference customer", and the specific allocation of risks between licensor and licensee as regards future sales development) to justify the difference in rates, but the court's assessment was that these matters, whilst admissible in principle, were not sufficient to justify what were described as exorbitant differences in rates. It appears, however, from paragraphs [278] and [287] that the court considered that the differences in treatment were sufficient to distort competition.

(ii) United States

155. In *TCL v Ericsson* Case 8:14-cv-00341(unreported) Judge Selna, in the United States District Court for the District of California, considered (at page 91 of the transcript) an argument that it was necessary to show competitive harm, in other words that the discrimination had the effect of impairing the development or adoption of the standard. The court considered that this was an illegitimate attempt to engraft onto the FRAND declaration principles derived from US anti-trust law. Although one purpose of the FRAND declaration was to foster standardisation, this was not to the exclusion of individual harmed firms.

156. The court made a comparison of the amounts paid by similarly situated licensees, and concluded (at page 94 of the transcript) that the terms on offer to the licensee were "radically divergent" from those amounts and therefore did not meet the FRAND obligation.

157. In *Ericsson, Inc., v D-Link Systems, Inc.* (cited at [70] above) the United States Court of Appeals for the Federal Circuit, explained that in setting a royalty rate on reasonable and non-discriminatory terms it was not permissible to have regard to "the commercial relationship between licensor and licensee" see page 48 of the report. The commercial relationship between licensor and licensee is one of the list of fifteen "*Georgia Pacific*" factors normally used by the US courts in assessing damages on a reasonable royalty basis, and refers for example to whether the licensor and licensee are competitors or inventor and promoter: *Georgia-Pacific*, 318 F. Supp. at 1120.

(iii) China

158. In *Huawei v Interdigital*, (2013) (cited at [73] above), the Chinese appellate court (at page 71 of the transcript) recorded and apparently approved the lower court's finding as follows:

> "… if the trading conditions are basically the same, basically the same royalties or royalty rates should be collected. To determine if non-discriminatory terms are satisfied, it often requires comparative methods. Under the same terms of trade, if a standards-essential patents holder charges a lower royalty from a certain licensee while a higher royalty is collected from another licensee, the latter will have every reason to believe to be subject to discriminatory treatment by way of comparison. In this connection, the standards-essential patents holder would violate the commitment to grant non-discriminatory licenses."

159. In that case, other InterDigital licences were unpacked to derive effective rates, with the unpacked effective rates for Apple being much lower than were on offer to Huawei. The court regarded the Apple licence as the primary reference, having been voluntarily negotiated and agreed by the parties (see page 72). The unpacked effective rate derived for Apple was 0.0187%, for Samsung 0.19%, but the court adopted the rate of 0.019% (marginally greater than the unpacked effective rate paid by Apple) as the appropriate rate.

Equivalent or comparable transaction

160. Although it arises on UP's respondent's notice, it is logical to consider this issue first, because if UP is correct, then UP contends that the obligation not to discriminate is not engaged. UP argued before the judge that the factors which made the Samsung licence an unreliable comparator for the purposes of setting a fair and reasonable rate were also relevant to whether the transactions were equivalent or comparable. The judge rejected this. Although Mr Ware's evidence showed that the weight to be attached to pricing in the Samsung licence was low, the various benefits which PanOptis perceived would flow from it, and UP's financial and other circumstances, did not derive from any objective characteristics of the transaction itself. He said at [491]:

> "It is in the end nothing more than a patent licence (with the associated assignment). UP's or PanOptis's motives for selling this licence cheaply on that occasion do not change the fact that they did sell the licence cheaply. The consequence of the

> licence is that PanOptis has been able to enhance its general relationship with Samsung and therefore to have a relationship with Samsung which it does not have with Huawei, but I reject the suggestion that this means that the transaction has features vis a vis Samsung which make it different in any objective sense relevant in this context from the licence Huawei is entitled to."

161. The judge went on to point out that the circumstances of the present case were striking. Samsung was one of a handful of major licensees. The licence was for the same portfolio and related to the same acts. It was contemporaneous. It was therefore, for the purposes of considering hard-edged non-discrimination, an equivalent or comparable transaction to the putative licence under consideration between UP and Huawei.

162. It is common ground that the principles of non-discrimination on the one hand and equality of treatment on the other are essentially two sides of the same coin. The underlying principle is that comparable situations must be treated the same and different situations must be treated differently: see e.g. Case C-313/04 *Franz Egenberger* EU:C:2006:454 at [33]. That principle finds application in a wide variety of different contexts. In competition law, Article 102(c) TFEU provides specifically that "*applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage*" is prohibited where the party applying the dissimilar conditions is in a dominant position in the EU internal market or a substantial part of it.

163. The parties are not, however, agreed on how one goes about determining when situations, and in particular transactions, are equivalent or comparable. In the context of the Treaty establishing the European Coal and Steel Community, which prohibits by Article 60(1) the application by one and the same seller of dissimilar conditions to comparable transactions, *Commission Decision 72/440/ECSC*, OJ 1972 L 239/39 laid down a three part test for this purpose:

> "Transactions shall be considered comparable within the meaning of Article 60 (1) if
>
> (a) they are 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 involve the same or similar products,
>
> (c) in addition, their other relevant commercial features do not essentially differ."

164. The essence of this aspect of the dispute is the breadth of the enquiry into the "relevant commercial features" of the transaction. Is it enough if the two counterparties (in this case Samsung and Huawei) are "similarly situated" as

licensees? Or does the enquiry go further, making it legitimate to rely on differences in the commercial situation facing the licensor? Huawei did not contend that the position of the licensor was wholly irrelevant, but submitted that a line needed to be drawn between objective factors, and factors which merely reflected the licensor's self-interest. Thus counsel for Huawei accepted that a licensor who agreed a low royalty rate because he was on the verge of insolvency and had no alternative but to agree might be able to contend that the licence agreed in consequence was not equivalent or comparable to a licence where the licensor was not in such a position. That, however, was not this case.

165. Counsel for UP sought to gain support from some observations of Advocate General Wahl in Case C-525/16 *MEO Serviços de Comunicações e Multimédia SA v Autoridade da Concorrência*. That case concerned the application of differential prices at different times by a collective copyright licensing body, GDA.

> "56. Secondly, and following on from those considerations, I wonder if the present case really does involve 'equivalent transactions' on 'dissimilar conditions', within the meaning of point (c) of the second paragraph of Article 102 TFEU — and thus 'discrimination', rather than objective 'differentiation' — in the context of the licensing of related rights to MEO and NOS.
>
> 57. As is clear from the case-law, account must be taken of all of the prevailing conditions on the market in order to determine whether transactions are equivalent. Those conditions will include, among other things, a temporal aspect, inasmuch as the price set for the provision of a particular service may vary over time, depending on market conditions and the criteria applied in setting that price. In other words, the fact that a service may be provided at different times may render transactions non-equivalent.
>
> 58. In addition, it is apparent from the information submitted to the Court that the determination of the prices and of the other contractual terms associated with the related rights which GDA markets is subject to the law, which obliges the parties to have recourse to arbitration if they cannot reach agreement. In such a situation, GDA will, as it did with the prices it charged MEO, merely apply the price established by the arbitration decision. In my opinion, the prices which GDA applied to MEO and NOS respectively were therefore set under circumstances that were a priori different."

166. Counsel for UP also relied on the German case of *Sisvel v Haier* (cited at [77] above), which showed that the court was prepared in principle to take account of other relevant circumstances on a broader basis than the judge had done here, even though, on the facts of that case, those special circumstances had not assisted the SEP owner.

167. On the facts here, Counsel for UP stressed the judge's findings (a) concerning UP's serious financial difficulties and the impact that they had on the price that was paid by

PanOptis for UP; (b) that the Samsung licence is part of a much wider and more complex financial commercial transaction entailing the purchase by PanOptis of UP; (c) the importance of the broader strategic relationship with Samsung, which the judge had found objectively to have value; and (d) the fact that the licence in the context of the broader transaction had the effect to de-risk the acquisition by PanOptis of the UP portfolio. Those matters had quite rightly led the judge to recognise that the licence did not represent useful evidence of the value of UP's portfolio, and should have led him to conclude also that the Samsung licence and the putative licence with Huawei were not equivalent or comparable.

168. For their part counsel for Huawei relied on *Ericsson, Inc., v D-Link Systems, Inc.*, (cited above) where the court explained that in setting a royalty rate on reasonable and non-discriminatory terms it was not permissible to have regard to "the commercial relationship between licensor and licensee".

169. In our judgment, in deciding whether two transactions are equivalent it is important to focus first on the transactions themselves. The equivalence of the transactions themselves needs to be disentangled from differences in the circumstances in which the transactions were entered into. Commission Decision 72/440 speaks of the "relevant commercial features" of the transactions, not all the economic circumstances prevailing at the time the transaction was entered into. On this basis, a change in market conditions between two otherwise identical transactions would not make the transactions themselves non-equivalent. On the other hand such a change (for example a change in a cost of raw materials) could well amount to an objective justification for a difference in treatment.

170. We accept that the Advocate General, in paragraphs 57 and 58 of his Opinion in *MEO Serviços de Comunicações e Multimédia* referred to changes in market conditions as having the potential to render transactions non-equivalent. That observation is not supported by any corresponding finding in the judgment of the Court, however, and the Opinion is expressed in the most tentative terms. Moreover, the passage does not go as far as UP contends, because, in drawing a distinction between "discrimination" on the one hand and "objective differentiation" on the other hand it does not go as far as to suggest that the non-discrimination obligation is not engaged at all. It cannot be the case that even minor differences in market conditions could be the foundation for an argument that the transactions are not equivalent, and that the non-discrimination obligation is not therefore engaged. Finally, the sort of factors which the Advocate General is considering, external market conditions or a different licensing regime, are plainly objective external factors which could justify a difference in treatment in an appropriate case.

171. The German case of *Sisvel v Haier* is also of no assistance to UP on this issue. That approach admits that a factor such as market conditions may justify a difference in treatment. The conclusion from this is not that the non-discrimination obligation ceases to be engaged, but that differences in treatment have to be justified objectively.

172. In our judgment the judge was right to regard the licences to Samsung and to Huawei as equivalent transactions on this basis.

173. UP's financial circumstances were certainly a factor which enabled the effective royalty rate payable by Samsung to be depressed, but we do not think that it is

legitimate to regard the licensor's financial position as a relevant feature of the transaction itself, any more than it would be legitimate so to regard the licensee's financial position.

174. It is true that the licence to Samsung formed part of a wider deal, which made it necessary to disentangle the patent licence from the other features of the deal. That exercise was necessary as a preliminary step in identifying the relevant features of the transaction. Having done so, however, the transaction which emerges is an equivalent transaction to the putative transaction with Huawei.

175. PanOptis' goal of achieving a strategic relationship with Samsung also does not form a relevant feature of the transaction. No term of the agreement provided for any such future relationship. PanOptis' subjective reasons for licensing Samsung at the lower rate do not result in the conclusion that the patent licence granted to Samsung is not equivalent. The same applies to the de-risking of the acquisition.

176. It follows, therefore, that we agree with the judge that the non-discrimination limb of the FRAND undertaking is engaged in this case.

General or hard-edged?

177. The judge's first formulation of the non-discrimination obligation was that which he termed "general". As he explained it, a benchmark rate for what was a fair and reasonable valuation of the patents, provided that it was on offer to all potential licensees seeking the same kind of licence without reference to their size or any other characteristic, was "itself non-discriminatory". On this basis, his view was that a grant of a licence at a lower rate did not count.

178. The development of the notion of general non-discrimination can be traced to the judge's reasoning in deciding on the benchmark rate. Thus at [175] he says:

> "Huawei also submit that the comparables selected should include some, or ideally all, of three criteria: (a) the licensor is UP or Ericsson, (b) the licensee is Huawei, or a similarly situated company such as Samsung and (c) the licence is recent. I agree with (a) and subject to what "recent" means I agree with (c). However I am not convinced that (b), the identity of the licensee, should be a strong factor in determining what comparables are useful for determining the FRAND rate aside from the hard edged non-discrimination point addressed below. FRAND is supposed to eliminate hold up as well as hold out. Different licensees will have differing levels of bargaining power. That is another way of saying their ability to resist hold up and their ability to hold out will vary. It would be unfair (and discriminatory) to assess what is and is not FRAND by reference to this and other characteristics of specific licensees. In my view, it would not be FRAND, for example, for a small new entrant to the market to have to pay a higher royalty rate than an established large entity. Limiting comparable licences to those where Huawei or a similar company like Samsung is the licensee is therefore unjustified. In my judgment the

> FRAND rate ought to be <u>generally non-discriminatory</u> in that it is determined primarily by reference to the value of the patents being licensed and has the result that all licensees who need the same kind of licence will be charged the same kind of rate." (emphasis supplied).

179. Then the judge explained the contrast between general and hard-edged discrimination at [177]:

> "Some arguments were addressed to the non-discrimination ("ND") aspect of FRAND as opposed to the "FR" aspect of FRAND as if they were distinct. However it is not that simple. Most of the time the concepts of non-discrimination, reasonableness and fairness relate to one another. In that sense it is useful to characterise a royalty rate as FRAND rather than try to distinguish between something which is merely fair and reasonable as opposed to fair, reasonable and non-discriminatory. The argument about non-discrimination treated it as a concept which would apply to reduce a royalty rate even if that rate was otherwise "FR". For want of a better expression, I will distinguish between a "hard-edged" and a "general" non-discrimination obligation. The general non-discrimination obligation is the aspect of non-discrimination which I have mentioned already. It is part of an overall assessment of the inter-related concepts making up FRAND by which one can derive 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. The hard-edged non-discrimination obligation, to the extent it exists, is a distinct factor capable of applying to reduce a royalty rate (or adjust any licence term in any way) which would otherwise have been regarded as FRAND. This will take into account the nature of the particular licensee seeking to rely on it."

180. The judge noted that there was no authority in point as to the meaning of the "ND" limb of FRAND. He was referred to a paper in the economics literature "*An Economic Interpretation of FRAND*" by Carlton and Shampine, Journal of Competition Law and Economics (2013) 9(3): 531-552 from which he cited at [496]:

> "The "non-discriminatory" principle of FRAND, however, is not widely agreed upon. The standard economic definition would mean that all users pay the same royalty – i.e., there is literally no discrimination on price or any other terms. Some economists have proposed that it means only that all firms which use the standard be able to obtain a license, with no constraint as to the terms of the license. That of course allows different firms to pay different royalties but still have access to use of the patent.
>
> *[…]*

> 'Non-discriminatory' in the context of an SSO setting standards for competing firms can be interpreted to mean that all implementers of the standard should be offered licenses to the technology and all 'similarly situated' firms should pay the same royalty rate."

181. The judge went on to explain what he derived from the cited literature:

> "497. I infer from the paper that there is no wide agreement amongst economists about how the non-discrimination limb of FRAND applies. In the passage quoted the paper proposes three possible interpretations. First, the "standard economic definition". That is one in which all licensees pay identical rates on identical terms. It is not supported by either party before me. I am not surprised. If that is what the ETSI undertaking was supposed to mean it could readily have been written in that way. While such an approach has the virtue of simplicity it would be impractical in practice. It would be highly restrictive. Many licences contain most favoured licensee clauses but they are not generally as onerous as this would be. There is no reason to interpret the ETSI FRAND undertaking in such a strict way.
>
> 498. The second version of non-discrimination referred to is one which "some economists" have proposed. It is very weak. Since the ETSI FRAND undertaking already obliges licensors to offer licences to everyone, it does not add anything to that. It is also weaker than the benchmark FRAND rate approach, which at least applies to all licensees with licences of the same type. The benchmark approach does not mean that all licensees must pay exactly that rate but it provides a benchmark against which such a rate can be judged. In practice it will stop licensees having to pay much more than the benchmark set by reference to the value of the portfolio. Competition law can intervene to penalise the imposition of excessive prices much higher than the benchmark FRAND rate. Neither side supported this weak second version of nondiscrimination.
>
> 499. The third interpretation proposed by Prof Carlton is based on similarly situated firms paying the same rate. It is based on the same concepts as competition law. In effect this is the one Huawei contend for although one cannot take that too far. The paper is not purporting to set out a fully worked out proposal on the correct approach in law to interpret the FRAND undertaking. It is not focussed on the distinction between the arguments of Huawei and UP."

182. The judge arrived at the "general" non-discrimination approach at [502]:

> "Having got this far it seems to me that it is not necessary to read this hard-edged non-discrimination obligation into the

> ETSI FRAND undertaking at all provided one takes a benchmark rate approach to assessing a royalty under the ETSI FRAND undertaking. That approach is itself non-discriminatory and gives effect to the "ND" limb of FRAND. It is a more stringent non-discrimination obligation than the weakest one proposed in Prof Carlton's paper but much simpler to apply in practice than the first proposed obligation or the one based on all the competition law concepts. Competition law will always be available in an appropriate case."

183. Thus the judge's approach does not mean simply that licences are available to all-comers, with the rates to be hammered out in negotiations which would take account of the relative bargaining power and other circumstances of the particular licensee. Rather it involves a unitary process in which a benchmark royalty is decided on which is then available to all-comers who are similarly situated. In that way weight is given to both the fair and reasonable limb and the non-discriminatory limb of the FRAND undertaking.

184. Huawei's case is that the "ND" limb of FRAND is a separately enforceable obligation. Thus, if a SEP proprietor has granted a licence at a rate below the benchmark rate, it is obliged to offer that rate to all potential licensees, even though this would mean that the licensee is then granted a licence at a royalty rate which under-values the SEPs included in the portfolio. Huawei therefore supports what the judge termed "hard-edged" non-discrimination.

185. Counsel for Huawei submitted that the judge had fallen into error in approaching the non-discrimination limb of FRAND in the way he had. They submitted that the judge's approach appeared positively to permit the SEP owner to discriminate beneath the cap set by the benchmark rate. Further it had the effect in the present case that the Samsung licence, a licence granted for the same portfolio to one of Huawei's major competitors, is simply ignored. That is because the Samsung licence was left out of account as not being a fair reflection of the value of the portfolio when setting the benchmark rate, and then left out of account again when it came to deciding whether the SEP owner has been guilty of discriminatory pricing.

186. Counsel for Huawei went on to submit that the judge's approach was not supported by any of the academic papers cited to the judge, or by the experts. It robbed the non-discrimination limb of FRAND of any content independent of the fair and reasonable limb. Further, the approach would render the non-discrimination obligation ineffectual, as in most real-world situations the parties do not have the benefit of a court-determined benchmark obligation. In *Huawei v ZTE* (cited at [21] above) the CJEU had assumed that the licensor could determine whether he was complying with the obligation by consulting actual prior licence agreements.

187. Counsel for UP supported the judge's "general" approach to non-discrimination. They underpinned their submissions by drawing attention to the wide variety of circumstances in which a non-discrimination obligation can arise: public law, EU law and competition law. In the context of non-discrimination as it applies to regulate the conduct of private economic actors in their interaction with other private economic actors, they submitted that it is well-recognised that charging different prices to different customers is not necessarily problematic. It is well-recognised that

differential pricing can actually enhance consumer welfare and that different prices and terms are commonplace in the real world.

188. Counsel for UP relied for support on a passage from *The Law and Economics of Article 102 TFEU* by O'Donoghue and Padilla (Hart, 2018) at 780-781. The authors explain that price discrimination is not universally regarded by economists as *a priori* good or bad for consumer welfare. Condemning discrimination normally requires clear evidence of actual or likely harm to consumer welfare. The authors also make the point that different prices and terms are ubiquitous in real-world markets, which means that the practical scope of a strict non-discrimination rule would be enormous. Finally they point to the impracticality of rules that would insist on uniform prices and terms. Experience with strict non-discrimination laws in other jurisdictions—most notably the United States Robinson-Patman Act 1936—had been uniformly negative from a consumer welfare perspective. The result had been the protection of less efficient producers and higher average uniform prices for consumers as well as a reduction in distribution efficiencies.

189. Counsel for UP went on to point out that concerns such as these had been picked up by the Advocate General in his Opinion delivered 20 December 2017 in Case C-525/16 *MEO-Serviços de Comunicações e Multimédia SA v Autoridade da Concorrência* at paragraphs [61] to [64]:

> "61. On a general note, it is important to bear in mind that discrimination, including discrimination in the charging of prices, is not in itself problematic from the point of view of competition law. The reason for that is that price discrimination is not always harmful to competition. On the contrary, as is evidenced in particular by the (vain) official attempts made in the United States to repeal the provision in the Robinson-Patman Act of 1936 which prohibits such discrimination, purely and simply prohibiting price discrimination may prove injurious to economic efficiency and the well-being of consumers.
>
> 62. Indeed, it is well established that a practice of discrimination, and a differential pricing practice in particular, is ambivalent in terms of its effects on competition. Such a practice may have the consequence of increasing economic efficiency and thus the well-being of consumers. These are goals which, to my mind, should not be overlooked in the application of the rules of competition law, and they are, in any event, quite distinct from considerations of fairness. As the Court has repeatedly held, the rules of competition law are designed to safeguard competition, not to protect competitors.
>
> 63. It should only be possible to penalise price discrimination, either under the law applicable to cartels or under the law applicable to abuses of a dominant position, if it creates an actual or potential anticompetitive effect. The identification of such an effect must not be confused with the disadvantage that may immediately be experienced, or suffered, by operators that

> have been charged the highest prices for goods or services. Accordingly, the fact that an undertaking has been charged a higher price when purchasing goods or services than that applied to one or more of its competitor undertakings may be characterised as a disadvantage, but it does not necessarily result in a 'competitive disadvantage'.
>
> 64. Therefore, even where an undertaking is charged higher prices than those applied to other undertakings and, as a result, suffers (or considers that it suffers) discrimination, the conduct in question will be caught by Article 102 TFEU only if it is established that it is likely to restrict competition and diminish the well-being of consumers."

190. Counsel for UP also drew our attention to *Nondiscriminatory Pricing: Is Standard Setting Different?* by Anne Layne-Farrar (Journal of Competition Law and Economics 2010 1-28), in which the author argues that non-discrimination in the context of a RAND obligation should be "effects-based", i.e. that it should not condemn price-discrimination *per se*.

191. Accordingly, counsel for UP submitted that a strict and absolute non-discrimination obligation, particularly in the context of pricing, would be undesirable and impractical. For this reason, non-discrimination obligations in all bodies of law incorporate mechanisms to ensure that they preclude differential treatment which is problematic, but allow differential treatment which is not problematic.

192. Counsel for UP advanced five reasons in support of the judge's "general" non-discrimination obligation:

    i) The general non-discrimination obligation gives full effect to the non-discrimination limb of FRAND. It does not discriminate between licensees, because the FRAND rate is objectively determined based on the value of the portfolio, and it does not take into account the characteristics of individual licensees. It satisfies the obligation to treat like cases alike, because the same rate is made available to all licensees who are similarly situated in the sense that they seek the same licence.

    ii) The non-discrimination limb of FRAND should not be read so as to trump all other considerations. The judge had correctly read it as working together with the fair and reasonable limb of FRAND as part of a unitary concept. The role of the non-discrimination limb was to ensure that the fair and reasonable royalty was one which did not depend on any characteristics of the licensee. Huawei's approach meant that the existence of a prior licence which the judge had expressly held did not represent useful evidence of the value of the portfolio compelled UP to licence at the same rate, and therefore receive remuneration which was less than a fair and reasonable return for its portfolio. This was to give the non-discrimination limb an unnecessarily extreme effect.

    iii) ETSI had considered and rejected the imposition of a "most-favoured licensee" clause in the undertaking. It would be anomalous if the non-discrimination limb of FRAND had the effect of compelling the SEP owner to grant a licence on the most favourable terms thus far granted, thereby giving effect to an undertaking which had been expressly rejected.

iv) There can (as explained above) be no presumption that differential pricing is problematic. Competition law can always step in to prevent differential pricing which is harmful to downstream markets, as the judge had recognised.

v) The judge's approach reflects commercial reality in that there may be circumstances in which a licensee licenses its portfolio at a rate which does not actually reflect its true value. One example of this is where a licensor offered a lower rate to the first licensee to take a licence, because it provides them with initial income on their portfolio and because the fact that somebody has been prepared to take a licence to their portfolio validates it and encourages others to do the same. A further example would be where a licensor who was in financial difficulties engaged in a "fire sale" and also granted a licence which did not represent the fair value of the portfolio.

193. As to the possibility of discrimination by granting licences below the benchmark rate, Counsel for UP submitted that the judge had correctly addressed and dealt with this argument at [494] of his judgment. Having considered the differences between the Samsung licence rate and the benchmark rate, and also between the Samsung licence rate and the rates claimed at various points by UP, he said:

> "These discrepancies favour Huawei's argument. However there is a major difference between this case and a case like [*Attheraces Ltd v The British Horseracing Board Ltd* [2007] ECC 7], because at this point in the argument the discrepancy is with respect to a benchmark rate which represents what has been determined to reflect the true value for the portfolio under licence. The discrimination is not that Huawei is being required to pay a rate higher than that, the issue is that Huawei's competitor has been given a much lower rate."

194. Both sides' submissions on this issue were extremely cogent and presented with great skill. In the end we prefer UP's submissions.

195. On its face, the difficulty with the "general" non-discrimination approach is that it operates in an asymmetric fashion. On this approach, once a benchmark rate is identified, the SEP owner is precluded by the undertaking from attempting to secure higher rates from licensees, but there is nothing to prevent it from granting licences at lower rates. A proposed licensee who points to a prior comparable licence granted at a lower rate is not able to force down the rate on offer to match this lower rate.

196. The "general" approach does, however, gain support from the object and purpose of the FRAND undertaking. These are to ensure that the SEP owner is not able to "hold-up" implementation by demanding more than its patent or patent portfolio is worth. The undertaking therefore requires it to offer to license the portfolio on terms which reflect the proper valuation of the portfolio, and to offer those terms generally (i.e. in a non-discriminatory manner) to all implementers seeking a licence. The objective of the undertaking is not to level down the royalty to a point where it no longer represents a fair return for the SEP owner's portfolio, or to remove its discretion to

agree lower royalty rates if it chooses to do so. It is inherently unlikely that a proposal presented in such terms would have gained support from innovators.

197. We accept that differential pricing is not *per se* objectionable, and can in some circumstances be beneficial to consumer welfare. Counsel for UP made good the point that there is no point in mandating equal pricing for its own sake. In short, an effects-based approach to non-discrimination is appropriate. Once the hold-up effect is dealt with by ensuring that the licence is available at a rate which does not exceed that which is fair and reasonable, it is difficult to see any purpose in preventing the patentee from charging less than the licence is worth if it chooses to do so.

198. In that connection we consider that a non-discrimination rule has the potential to harm the 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. It is true that it is not compelled to grant any licence, and may hold out for a return which is commensurate with the value of the portfolio, but such an approach is not always commercially possible. The undertaking should be construed in a way which strikes a proper balance between a fair return to the SEP owner and universal access to the technology without threat of injunction. 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.

199. It is difficult to identify any underlying purpose which would support the hard-edged discrimination rule contended for by Huawei. Its effect is akin to the insertion of the rejected "most favoured licensee" clause in the FRAND undertaking. It is of course possible that those behind formulating the undertaking thought that the same effect as a most favoured licensee term could be achieved by the "ND" limb of FRAND, but we consider that it is far more likely that the industry would have regarded such a term as inconsistent with the overall objective of the undertaking.

200. Huawei is correct that the potential exists for discrimination below the benchmark rate. Such discrimination is not, however, without the potential for redress through the application of competition law. We can see no reason why the authors of the undertaking should have been concerned to constrain the ability of the SEP owner to grant licences at lower rates if these cause no competitive harm.

201. Whilst Huawei is right to point out that the effect of the general approach is to limit the impact of the non-discrimination limb of the undertaking, it may also fairly be said that the hard-edged approach gives unwarranted primacy to that limb, in that a licence granted at a lower rate, no matter how low, will always trump the benchmark fair and reasonable rate.

202. We are not impressed by reliance on the assumptions made in the *Huawei v ZTE* case that prior licences will be relevant to determining whether the non-discrimination obligation has been complied with. We do not think that either the CJEU or the Advocate General will have had in mind the precise interpretation of the non-discrimination limb. Furthermore it is far from being the case that prior licences granted by the SEP-owner will have no bearing on that obligation, as they will likely form the best comparables for determining the benchmark rate.

203. Equally, there is nothing in Huawei's complaint that the judge's interpretation did not exactly replicate any of those described in the expert evidence or the economic literature. The judge was engaged in an exercise of interpretation, seeking to apply normal principles of contractual interpretation against a specific commercial, factual matrix. He was not bound to adopt the formulation of either side. Furthermore, given the wide spectrum of possible interpretations canvassed in the literature, it is not surprising that he did not opt precisely for any one of them.

204. It is true that the parties who seek to negotiate a licence on FRAND terms will not have the benefit of a court-determined benchmark rate. We do not see this as a real practical difficulty with the judge's approach, however. If the correct approach in law is as we have determined, then it will mean that the focus of the negotiations will be on determining a fair and reasonable rate for the portfolio, an exercise which is familiar in the patent licensing world. It is true that this will not be as simple as merely identifying the lowest rate which the SEP owner has offered in the past, but that is a consequence of adopting an approach which does not abandon the principle of fair reward to the SEP owner.

205. We also, with respect, have not found much assistance in the foreign cases cited on this point, as they do not directly address the argument which is presented to us. *Sisvel v Haier* is of some assistance to UP where it stresses the discretion enjoyed by the SEP owner to set different conditions. However the court then goes on to take the stricter approach that discrimination which is more than minor can only be allowed to the extent that it is objectively justified, and specifically to disapprove the rejection of "outliers". The court did not directly address the issue of whether the non-discrimination obligation can force the SEP owner to accept a royalty which is shown to be less than a fair and reasonable valuation of the portfolio. Whilst the court in *TCL v Ericsson* rejected the notion that a requirement for competitive harm should be grafted on to the non-discrimination obligation, it was not asked to address the argument presented to us. The Guangdong court in *Huawei v Interdigital* seems to have accepted a hard-edged approach, but there is no detailed analysis of why that should be so.

206. We recognise that, in the development of this important area, it is desirable that an internationally accepted approach should ultimately emerge. However there is as yet only a handful of decisions which attempt to grapple with these issues. It would be wrong, in our judgment, to harmonise on a first-to-decide basis.

207. It follows that the judge was right to hold that the licence on offer to Huawei was on non-discriminatory terms.

Distortion of competition

208. The judge concluded that, if the "ND" limb of FRAND included a hard-edged non-discrimination obligation, then, in the alternative, it should be tempered or softened by ignoring differences in terms which were not sufficient to give rise to a distortion of competition. The judge put it in this way at [501]:

> "In my judgment the ETSI FRAND undertaking should not be interpreted so as to introduce the kind of hard-edged non-discrimination obligation supported by Huawei without also

> including consideration of the distortion of competition. Competition law does not seek to prohibit different prices being charged to different customers. An important aspect of the way that result is assured in competition law is by the requirement that only terms which are sufficiently dissimilar to distort competition are prohibited. In other words, the various elements of the competition law applicable [to] discriminatory pricing operate as a whole to achieve a fair balance. Splitting off some parts without the others is unbalanced and risks unfairness."

209. As we have rejected the hard-edged non-discrimination rule, it follows that it is not necessary for us to deal with this alternative case.

210. In the result, Huawei's appeal on ground 2 fails.

Ground 3 – Huawei v ZTE and proportionality

211. Huawei contended before Birss J that UP was in a dominant position and that it had abused that dominant position contrary to Article 102 TFEU by bringing these proceedings prematurely, by seeking to charge excessive royalty payments and by bundling together its SEPs and non-SEPs in its offers of a licence. The judge found that UP was in a dominant position in the relevant market, the market for licences under its SEPs, but that it had not abused that dominant position in any of the ways contended for by Huawei.

212. Upon this appeal, Huawei argues that the judge was wrong to reject its assertion that UP had breached its dominant position by bringing the proceedings prematurely. UP counters that the judge was right to right to reject all of the allegations of breach of dominant position but fell into error in finding that it had a dominant position in the first place.

Dominant position?

213. It is convenient to take this point first and we begin by summarising some general principles. The CJEU explained in Case 27/76 *United Brands v Commission* [1978] ECR 2017 at [65] that a dominant position is:

> "… a position of market strength enjoyed by an undertaking which enables it to prevent effective competition being maintained in the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately of its consumers."

214. The Commission gave guidance on the assessment of dominance in its communication 2009/C 45/02. In paragraph 10, it is explained that the notion of independence in this definition is related to the degree of competitive restraint exerted on the undertaking, and dominance means that any competitive restraints are not sufficiently effective and hence that the undertaking enjoys substantial market power over a period of time. This allows it to be largely insensitive to the actions and reactions of competitors and customers.

215. At paragraph 12 the Commission set out three factors the assessment should take into account, the third of which is "constraints imposed by the bargaining strength of the undertaking's customers". In that regard, paragraph 13 explains that market shares are a useful first indication of the market structure and of the relative importance of the various undertakings active on the market, but they must be interpreted in light of the relevant market positions and the dynamics of the market. Paragraph 18 then addresses the possibility of countervailing buyer power. Here it is said that even an undertaking with a high market share may not be able to act independently of customers with sufficient bargaining strength.

216. It was and remains common ground that in this case the relevant market for the purpose of assessing dominance is, in the case of each SEP, the market for the licensing of that SEP, so the SEP owner has 100% of each such market. Huawei submitted that in these circumstances there must be at least a strong presumption that UP was dominant.

217. UP did not admit that it was dominant and in closing submissions contended that, although Huawei had alleged it had a dominant position, it had done no more than rely on the presumption. But, argued UP, its market power was constrained by two important matters. The first was the FRAND undertaking. The other was the potential for hold-out.

218. The judge held that that the FRAND undertaking was justiciable and enforceable and that it could be relied upon by third parties, and there is no appeal against these findings. He then proceeded to consider its effect. Here he referred to, among other matters, the evidence of Dr Niels and Professor Neven. It was Dr Niels' opinion that a SEP owner cannot refuse to grant a licence and that the FRAND undertaking was "almost literally" a restriction on the market power of the owner to set a price because the court could do so if the parties did not agree. Professor Neven agreed that the undertaking did in practice constrain the conduct of SEP owners but was of the opinion that it could not be assumed that it would preclude any owner from acting in a manner which was contrary to FRAND.

219. The judge summarised the position at [656]. He held that, based on all the evidence (including that of the parties' witnesses, the economists, the valuation experts and the French lawyers) SEP owners and potential licensees were well aware that the FRAND undertaking obliges the owner to grant licences; and further, that since 2013 the FRAND undertaking has operated as a practical constraint upon a SEP owner's market power and that it has given potential licensees a form of market power they would not otherwise have had.

220. The second matter is the potential for hold-out by potential licensees. In this regard the judge held that this was an unusual form of market. What the implementers really wanted was access to the standard, which they could get without paying the SEP owners in advance. If they had to pay licence fees then they would do so, but the idea of these implementers rushing to pay licence fees was fanciful. The structure of the market therefore gave rise to the possibility of hold-out and that there was clear potential, on theoretical grounds, for this to occur.

221. As to whether hold-out had occurred, the judge referred to and accepted the evidence of Mr Robbins, who was until July 2015 the Executive Vice President and General

Manager of the Intellectual Property Division of UP. He explained that prior to the commencement of proceedings potential licensees did not want to take a licence and were deploying "every tool available" to ensure that no licence was concluded; many seemed to be engaging in delaying tactics; and UP realised that it would be very difficult if not impossible to progress beyond technical discussions and to start negotiating the terms of a licence without litigation. The judge held that this was evidence of holding out before discussions on pricing took place. He drew the distinction between the periods before and after pricing discussions because once pricing was discussed, the issue of delay became tied up with the question of what a proper rate should be.

222. The judge then reached this overall conclusion at [670]:

> "670. Standing back, the question I have to decide is whether Unwired Planet is in a dominant position in the relevant market. The relevant market is a market for licences under the SEPs. It is a market in which the SEP owner has 100% market share. The market is covered by the FRAND undertaking which does weaken the SEP owner's position. It is a market in which licensees can engage in holding out and there is some evidence that they do, particularly given the relative weakness of Unwired Planet. If a proper economic analysis had been done into this market then the issue might be more finely balanced but as it stands, and without that analysis, I am not satisfied either of these points alone or together is sufficient to justify not drawing the inference that the holder of a 100% market share is likely to be dominant. I hold that as the owner of SEPs, Unwired Planet is in a dominant position in the market for licences under those SEPs."

223. Upon this appeal, counsel for UP argue that the judge's reasoning contains two errors of principle. First, he was wrong to treat the various matters to which he had referred as evidence of hold-out before discussions on pricing took place. It was in fact evidence of an ability to hold-out at all times and so his finding should have been unqualified. The important question was whether potential licensees had demonstrated the ability to constrain the market power of a SEP owner, and they plainly had.

224. Secondly, the judge referred in his conclusion to the absence of a proper economic analysis. However, although Dr Niels and Professor Neven did not express a concluded view on dominance, both engaged with the issues in detail. What was more, the judge made crucial findings that the FRAND obligation was justiciable and enforceable; that the practical effect of the FRAND undertaking was to weaken the SEP owner's position; and that UP was in a weak financial position and unable to conclude licences. These matters should have led him to conclude that UP was not in dominant position.

225. We are not persuaded by these submissions. It is well established that, although the importance of market shares may vary from one market to another, the possession, over a long period, of a very large market share constitutes in itself and save in exceptional circumstances, proof of the existence of a dominant position, and that

market shares of more than 50% constitute very large market shares: see, for example, Case C-457/10 P *Astra Zeneca v Commission*, 6 December 2012 at [176].

226. In the case of a SEP owner, the market share is, of course, 100%. This is an important starting point but we recognise that ultimately it is no more than one factor in the analysis. As Advocate General Wathelet observed in his opinion in *Huawei v ZTE* at [57] to [58], the fact that an undertaking owns a SEP does not necessarily mean that it holds a dominant position, and it is for the national court to assess, on a case-by-case basis, whether that is indeed the case. Further, he continued, if the fact of using a standard and so making use of a SEP could give rise to a rebuttable presumption that the SEP owner holds a dominant position, it must be possible to rebut that presumption with specific detailed evidence.

227. These general principles guided the judge in this case. He directed himself correctly in law and then gave careful consideration to the expert evidence, such as it was. Dr Niels left the issue of dominance open but Professor Neven noted that, given the market definition, there was a strong presumption that UP was dominant. The judge thought that UP should have advanced a positive case if it wanted to rebut that presumption, and it should not have met Huawei's allegation with a mere non-admission. What was more and although it was true that the experts did express opinions on aspects of the market, UP had carried out no market analysis and in our view this was a matter which the judge was entitled to take into account.

228. That said, the judge did consider in detail the two particular points on which UP relied in argument, namely the FRAND undertaking and the potential for hold-out. No criticism is made of the way he dealt with the FRAND undertaking and we do not accept that the judge fell into error in the way he addressed hold-out. He recognised that the structure of the market gave rise to the potential for hold-out but he was not persuaded that this was a relevant factor once the negotiating parties had reached the stage of discussing prices. This was a finding that he was entitled to make on the evidence before him.

229. Overall, we are satisfied the judge was entitled to find that UP had a dominant position in the market. He took careful account of the structure of the market, the expert and factual evidence before him, the FRAND undertaking and the possibility of hold-out, and he reached an evaluative conclusion. He made no error of principle and the conclusion he reached was properly open to him. UP has not established any basis upon which it would be appropriate to interfere with that conclusion and we reject UP's challenge to it.

Has UP abused its dominant position?

230. This issue raises an important question concerning the circumstances in which it is appropriate for a UK court to grant injunctive relief in respect of the infringement of a SEP. The answer to this question depends upon the proper interpretation of the decision of the CJEU in *Huawei v ZTE*.

231. Huawei contends that this decision sets out a behavioural framework with which a SEP owner must comply before issuing and pursuing proceedings for injunctive relief or the recall of infringing products; and if it fails to do so its conduct is to be regarded as constituting an abuse contrary to Article 102 TFEU.

232. UP responds and the judge accepted that the CJEU has simply identified a series of procedural steps amounting to a 'safe harbour' for SEP owners. If a SEP owner follows these steps then it can exercise its right to enforce its patent rights by means of proceedings for injunctive relief without infringing Article 102.

233. We will come to the decision in *Huawei v ZTE* in a moment but first we must summarise the key elements of the factual background relevant to this ground of appeal:

i) The business of UP began in 1994. By November 2011 it had become a licensing business and it owned 140 patent families concerned with mobile internet technology.

ii) Ericsson was, by 2011, a major technology developer in telecommunications and a participant in standard setting. It had handset and infrastructure businesses and also a patent licensing business. It had licensed its patents to a range of companies including Samsung and, since 2009, Huawei. The patents which it had licensed to Huawei included the SEPs the subject of these proceedings. The licence expired at the end of 2012.

iii) In January 2013 Ericsson transferred to UP in excess of 2,000 patents and patent applications falling into 825 families of which 37 were declared as essential; the transferred patents included the SEPs the subject of these proceedings.

iv) Between June and August 2013 Huawei and UP considered the possibility of Huawei buying some of UP's patents. Huawei did not do so.

v) UP wrote to two Board members of Huawei in September 2013 suggesting the two companies should "sit down and have an extended discussion" with a view to concluding a licence. No reply was received to those letters.

vi) In November 2013 UP contacted Huawei's IP department which replied very promptly. There followed a brief delay during December 2013. In early January 2014 Huawei asked UP for claim charts and by letter of 16 January 2014 UP agreed to produce claim charts under a non-disclosure agreement and included draft terms. On 29 January 2014 Huawei produced different draft terms.

vii) By the end of 2013 Huawei knew or ought to have known that it required a licence from UP or its successor to continue to use the SEPs it had formerly licensed from Ericsson (if and in so far as any licence was required).

viii) On 10 March 2014 UP began these proceedings against Huawei, and parallel proceedings in Germany.

ix) In April 2014 UP made its first offer of licensing terms.

234. The decision of the CJEU in *Huawei v ZTE* was given on a reference from the Landgericht Düsseldorf in proceedings brought by Huawei against ZTE for infringement of one of its SEPs by selling products which met the standard for which that SEP was essential. Between November 2010 and the end of March 2011, Huawei

and ZTE engaged in discussions concerning the alleged infringement of the SEP by ZTE and the possibility of concluding a licence on FRAND terms in respect of the allegedly infringing products. Huawei indicated the amount it considered to be a reasonable royalty. For its part, ZTE sought a cross-licensing agreement. But no offer relating to a licensing agreement was finalised. Nevertheless, ZTE continued to market products which Huawei maintained met the standard without paying a royalty or rendering an account in respect of past sales.

235. In April 2011, Huawei began proceedings for infringement against ZTE and sought an injunction prohibiting the infringement, the rendering of accounts and an award of damages. The German court thought the decision turned on whether the action brought by Huawei constituted an abuse of its dominant position contrary to Article 102 TFEU and it referred a series of questions to the CJEU in that regard.

236. By way of introduction, the CJEU explained (at [41]) that, in the context of the dispute, the referring court raised the question whether the action for infringement seeking an injunction prohibiting that infringement, the rendering of accounts, the recall of products and the damages was to be characterised as an abuse of a dominant position and whether the action had to be dismissed. It continued (at [42]) that in answering that question it had to strike a balance between maintaining free competition (in respect of which the law prevented abuses of a dominant position) and the requirement to safeguard a proprietor's intellectual property rights and its right to judicial protection.

237. The CJEU then turned to the detail of the referred questions and observed that, so far as these concerned legal proceedings, they asked, in substance, in what circumstances the bringing of an action for infringement by an undertaking in a dominant position and holding a SEP, which had given an undertaking to the standardisation body to grant licences to third parties on FRAND terms, seeking an injunction prohibiting the infringement of that SEP or seeking the recall of products for the manufacture of which the SEP has been used, was to be regarded as constituting an abuse contrary to Article 102 TFEU.

238. From [45] to [47] the CJEU took the opportunity to restate some basic principles. First, the concept of an abuse of a dominant position contrary to Article 102 is an objective matter relating to the conduct of a dominant undertaking which, in a market where the competition is already weakened, through its behaviour hinders the maintenance of the degree of competition which still exists. Secondly, the exercise of the exclusive right linked to an intellectual property right, by bringing proceedings, forms part of the rights of the owner, with the result that the exercise of the right, even by a dominant undertaking, cannot itself amount to an abuse of a dominant position contrary to Article 102. But thirdly, that the exercise of the right in that way may nevertheless, in exceptional circumstances, amount to abusive conduct.

239. The CJEU explained that a case involving a SEP was distinguishable from the usual case for two reasons: first, a SEP is indispensable to the standard, making its use indispensable to all competitors; and secondly, a patent only acquires its SEP status as a result of the FRAND undertaking. So, although the SEP owner has a right to bring proceedings for an injunction, the fact that the patent has acquired SEP status means that its proprietor can prevent products made by other manufacturers from coming onto the market and in that way reserve the market in standard compliant products to

itself. This in turn means that a refusal to grant licences on FRAND terms may in principle amount to an abuse of a dominant position (see at [49] to [52]).

240. The CJEU continued (at [53]) that, in these circumstances, a refusal to grant licences on FRAND terms might in principle be raised by way of defence to an injunction or for the recall of products but the difficulty came where the parties could not agree what FRAND terms were. This discussion is followed by these two paragraphs:

> "55. In such a situation, in order to prevent an action for a prohibitory injunction or for the recall of products from being regarded as abusive, the proprietor of an SEP must comply with conditions which seek to ensure a fair balance between the interests concerned.
>
> 56. In this connection, due account must be taken of the specific legal and factual circumstances in the case (see, to that effect, judgment in *Post Danmark*, C-209/10, EU:C:2012:172, paragraph 26 and the case-law cited)."

241. A SEP owner may therefore prevent an action for an injunction from amounting to an abuse before FRAND terms have been settled by complying with conditions which will secure a fair balance between the competing interests we have identified. After emphasising (at [57] and [58]) that intellectual property rights are entitled to a high level of protection, the court continued (at [59]) that the FRAND undertaking nevertheless imposes on a proprietor an obligation to comply with specific requirements when bringing actions against alleged infringers for a prohibitory injunction or for the recall of products.

242. Then, at paragraph [60], the CJEU stated the proprietor of a SEP *cannot*, without infringing Article 102 TFEU, bring an action against an alleged infringer seeking an injunction or the recall of products without notice or prior consultation with the alleged infringer, and that is so even if the SEP has already been used by the alleged infringer:

> "60. Accordingly, the proprietor of an SEP which considers that that SEP is the subject of an infringement cannot, without infringing Article 102 TFEU, bring an action for a prohibitory injunction or for the recall of products against the alleged infringer without notice or prior consultation with the alleged infringer, even if the SEP has already been used by the alleged infringer."

243. The CJEU continued that, prior to proceedings, it is thus for the proprietor of the SEP, first, to:

> "61. … alert the alleged infringer of the infringement complained about by designating that SEP and specifying the way in which it has been infringed."

244. Secondly, after the alleged infringer has expressed a willingness to conclude a licensing agreement on FRAND terms, it is for the proprietor of the SEP to:

> "63. … present to that alleged infringer a specific, written offer for a licence on FRAND terms, in accordance with the undertaking given to the standardisation body, specifying, in particular, the amount of the royalty and the way in which that royalty is to be calculated."

245. Then, it is for the alleged infringer to:

> "65. … respond to that offer, in accordance with recognised commercial practices in the field and in good faith, a point which must be established on the basis of objective factors and which implies, in particular, that there are no delaying tactics."

246. The sanction upon the alleged infringer if it fails to respond appropriately is explained by the CJEU at [66]. If it does not accept the offer which has been made to it, it may rely upon the abusive behaviour of an action for an injunction or for the recall of products *only* if it has submitted to the proprietor of the SEP in question, promptly and in writing, a specific counter-offer that corresponds to FRAND terms.

247. A further obligation is imposed on the alleged infringer at [67]. Where that undertaking is using the teaching of the SEP before the conclusion of a licence, it is for it, from the point that its counter-offer is rejected, to provide appropriate security in accordance with recognised commercial practices in the field.

248. Two other points should be mentioned at this stage. First, if no agreement is reached after the counter-offer, the parties may request that the amount of the royalty be determined by an independent third party without delay (see at [68]). Secondly, an alleged infringer cannot be criticised for challenging, in parallel to the negotiations of the grant of a licence, the validity or the essentiality of the SEPs in issue, or for reserving the right to do so in the future (see at [69]).

249. The conclusion of the CJEU on these points is then set out at [71] which we should set out in full:

> "71. It follows from all the foregoing considerations that the answer to Questions 1 to 4, and to Question 5 in so far as that question concerns legal proceedings brought with a view to obtaining the recall of products, is that Article 102 TFEU must be interpreted as meaning that the proprietor of an SEP, which has given an irrevocable undertaking to a standardisation body to grant a licence to third parties on FRAND terms, does not abuse its dominant position, within the meaning of Article 102 TFEU, by bringing an action for infringement seeking an injunction prohibiting the infringement of its patent or seeking the recall of products for the manufacture of which that patent has been used, as long as:
>
> – prior to bringing that action, the proprietor has, first, alerted the alleged infringer of the infringement complained about by designating that patent and specifying the way in which it has been infringed, and, secondly, after the alleged

infringer has expressed its willingness to conclude a licensing agreement on FRAND terms, presented to that infringer a specific, written offer for a licence on such terms, specifying, in particular, the royalty and the way in which it is to be calculated, and

– where the alleged infringer continues to use the patent in question, the alleged infringer has not diligently responded to that offer, in accordance with recognised commercial practices in the field and in good faith, this being a matter which must be established on the basis of objective factors and which implies, in particular, that there are no delaying tactics."

250. The position is different in relation to an action for infringement seeking an account or damages, as the CJEU went on to explain at [74] and [75]:

> "74. In the present case, according to the description set out in the order for reference, the actions for infringement brought by the proprietor of an SEP, seeking the rendering of accounts in relation to past acts of use of that SEP or an award of damages in respect of those acts of use, do not have a direct impact on products complying with the standard in question manufactured by competitors appearing or remaining on the market.
>
> 75. Consequently, in circumstances such as those in the main proceedings, such actions cannot be regarded as an abuse under Article 102 TFEU."

251. Huawei contended at trial that the CJEU has here laid down a set of mandatory conditions with which a SEP owner must comply before starting an action seeking injunctive relief, and that if it fails to do so its claim for an injunction necessarily amounts to abusive conduct. It argued that UP was in breach of these conditions in that it issued these proceedings without (i) designating the patents said to be infringed; or (ii) presenting to Huawei a licensing offer of any kind, still less a FRAND offer. In these circumstances Huawei was entitled to rely on these deficiencies as a defence to the claim for an injunction.

252. The judge rejected these contentions. We think his reasoning can be distilled into the following propositions. First, the SEP owner must be committed to license its SEPs on FRAND terms, must make that clear to the implementer and must put forward concrete proposals; it is this commitment that matters and not whether the SEP owner has actually made an offer on terms which are ultimately found to be FRAND (see [738] and [744 (ii)]).

253. Secondly, the only requirement that *must* be satisfied before proceedings are commenced is that set out by the CJEU at [60], namely that the SEP owner gives notice to or consults with the implementer; and what amounts to sufficient notice will depend on all the circumstances (see [740] and [744(iv)]).

254. Thirdly, the CJEU has deliberately not decided that any deviation by the SEP owner from the scheme laid down in its judgment at [61], [63] and [71] will necessarily amount to an abuse of its dominant position; it has instead decided that if the SEP owner complies with those requirements, its conduct in bringing the proceedings for an injunction will *not* amount to an abuse of its dominant position (see [739], [741] and [744(iii) and (v)]).

255. Fourthly, in deciding whether the conduct of the SEP owner is abusive or not, regard must be had to all the circumstances and that conduct may be measured against the standard of behaviour the CJEU has set out at [71] (see [740] and [744(v)]).

256. Fifthly, if the SEP owner complies with the scheme its *subsequent* behaviour may nevertheless amount to an abuse of a dominant position (see [744(vi)]).

257. Sixthly, if the SEP owner does abuse its dominant position by bringing the claim or by its conduct in pursuing the claim, this will afford a defence to the claim for an injunction (see [744(vii)]).

258. The judge then proceeded to apply these principles to the facts of the case. Here he found that although UP had not provided its FRAND terms to Huawei before issuing proceedings, there was contact between the parties. Further, at the moment before proceedings were issued, Huawei had sufficient notice that UP held particular SEPs and it knew or ought to have known that if these SEPs were truly essential and valid then a licence was required. It also knew that UP wished to agree a licence with it. Overall, the information Huawei had by March 2014 was sufficient for it to understand that the issuing of proceedings for an injunction against it did not represent a refusal to license its SEP portfolio; quite the reverse: (see at [750]). Furthermore, the fact that an injunction was being claimed did not prevent the parties negotiating and that is what they proceeded to do (see at [752]).

259. The judge also explained that although UP did not present to Huawei, prior to the issue of proceedings, a specific, written offer for a licence on FRAND terms, it did provide to Huawei the key terms of a licence offer a few weeks after the commencement of proceedings (see at [753]). This was followed by counter-offer and further negotiations. But Huawei never made an offer to accept whatever the court might decide were FRAND terms (see at [754]).

260. In all these circumstances, the judge continued, UP had not abused its dominant position by issuing and pursuing these proceedings for an injunction in the way that it did. Even if it had done so, the judge was "far from being convinced" that the refusal of an injunction in 2017 would have been a proportionate remedy (see at [795]).

261. Upon this appeal, Huawei maintains the position it took at trial and contends that Birss J wrongly rejected its defence and has misunderstood the judgment of the CJEU in *Huawei v ZTE*. The submissions developed by counsel on its behalf are, in outline, as follows. They argue first, that the judge perceived there to be a tension between paragraphs [60] and [71] of the CJEU's judgment and he then sought to identify which paragraph formed the *ratio decidendi* of the decision. This was an error because there is no distinction between the *ratio* of a decision and *obiter dicta* in European jurisprudence. The judge ought to have interpreted the decision as a whole, and had he done so he would have found that the CJEU was laying down specific

requirements which, if not complied with, would result in a finding of abuse of a dominant position. They also say this has been the understanding of national courts.

262. Counsel for Huawei continue that the judge also misunderstood the requirement imposed by the CJEU at [60] in another way. He found that it only required contact *to some degree* before proceedings are issued. However, he ought to have read [60] together with [61] and in context, and had he done so he would have found that the prior notice called for [60] is to alert the alleged infringer of the infringement complained about by *designating* the relevant SEP and *specifying the way in which it has been infringed*. The judge's view that only lack of prior notice of any kind would render proceedings for an injunction abusive is not a faithful or fair interpretation of this requirement or the CJEU's judgment as a whole. As it was, UP's conduct was plainly deficient. Huawei was reasonably expecting to receive claim charts when the litigation began.

263. It is also submitted by counsel for Huawei that the condition laid down by the CJEU at [71] requiring a FRAND offer to made by the SEP owner *prior* to the commencement of proceedings cannot be complied with by making such an offer *after* the commencement of proceedings, and the judge was wrong to find otherwise.

264. Finally, submit counsel for Huawei, the judge fell into error at [795] in expressing the view that non-compliance with the *Huawei v ZTE* conditions might not disentitle UP to an injunction given the passage of time since March 2014. The decision of the CJEU on this issue is, they say, absolutely clear. The failure to comply with the *Huawei v ZTE* conditions gives rise to a defence to the claim for an injunction which is without limit of time, and the judge's observation to the contrary has no proper basis.

265. Counsel for UP submit that the judge came to the right answer and that he did so for the right reasons. They also argue that if the decision of the CJEU has the meaning for which Huawei contends then the injunction which UP sought was couched in careful and contingent terms which the judge ought to have found prevented any possible finding of abuse. Specifically it sought an injunction: "*save in so far as [Huawei] are entitled to and take a licence to the Declared Essential Patents on FRAND terms (in accordance with [UP's] undertakings and the ETSI IPR Policy) and insofar as [UP] is and remains required to grant such a licence*".

266. In resolving these rival submissions we think it helpful at the outset to step back and consider the landscape in which the *Huawei v ZTE* decision came to be made, the problem it seeks to address and the purpose of the framework which it has laid down. Important features of the landscape are the need to ensure, on the one hand, that interoperable and safe technologies are widely disseminated through the use of standards and, on the other hand, that innovators are adequately rewarded for the investment that they have made and that they are encouraged to continue to invest in research and development and standardisation activities. As we have explained, conflicts can occur, however. SEP owners may hold-up implementers by using the threat of litigation and an injunction to charge excessive licensing fees. Conversely, implementers may hold-out against the payment of reasonable licensing fees by refusing to engage in good faith licensing negotiations. So, as the Commission indicated in the introduction to the November 2017 EU Communication, there is a need to set out key principles that foster a balanced, smooth and predictable

framework for SEPs that will incentivise the development and inclusion of top technologies in standards by preserving fair and adequate return for their technical contribution, and also ensure the smooth and wide dissemination of standards based upon fair access conditions.

267. These conflicts and the need for a balanced and predictable enforcement regime to resolve them have given rise to a debate in the SEP area as to the availability of injunctive relief. As the Commission went on to explain in chapter 3 of the November 2017 EU Communication, such relief can protect SEP owners against infringers unwilling to conclude a licence on FRAND terms. But at the same time, safeguards are needed to guard against the risk that good-faith technology users threatened with an injunction accept licensing terms that are not FRAND, or are even driven out of the market. Here lies the importance of the decision of the CJEU in *Huawei v ZTE*. In the words of the Commission at 3.1 of the November 2017 EU Communication:

> "In its Huawei judgment, the CJEU established obligations applying to both sides of a SEP-licensing agreement, when assessing whether the holder of a SEP can seek an injunction against a potential licensee without infringing Article 102 TFEU. SEP holders may not seek injunctions against users willing to enter into a licence agreement on FRAND terms, and the CJEU established behavioural criteria to assess when a potential licensee can be considered to be willing to enter into a licence. "

268. We can now turn to what we perceive to be the most critical question on this aspect of the appeal, namely whether the CJEU was laying down in its judgment at [70] specific mandatory conditions which must be satisfied before proceedings seeking injunctive relief are issued, so that non-compliance will necessarily render the commencement of proceedings for an injunction an abuse of a dominant position, or whether, as the judge found, the only mandatory condition is that contained in the CJEU's judgment at [60], and that the conditions set out in the judgment at [70] will, if satisfied, provide a safe harbour for the SEP owner by ensuring that the commencement of proceedings does not, in and of itself, amount to an abuse.

269. We have come to the firm conclusion that the CJEU was not laying down mandatory conditions at [70] of its judgment such that non-compliance will render the proceedings a breach of Article 102 TFEU and that the judge's interpretation of the CJEU's judgment is in this respect entirely correct. We say that for the following reasons. First, the CJEU has expressly recognised at [56] that, in determining whether a course of conduct is abusive, account must be taken of the actual circumstances in the case. The need to take into account all the circumstances is well established in the jurisprudence of the CJEU and illustrated by the court's decision in Case C-209/10 *Post Danmark A/S v Konkurrencerådet* at [26]. This approach does not sit comfortably with the notion that the CJEU has laid down a set of prescriptive rules and that failure by a SEP owner to comply with any of them will necessarily and in all circumstances render the commencement of proceedings for an injunction abusive.

270. Secondly, the language used by the CJEU supports UP's position. The court said at [53] that a refusal by the SEP owner to grant a licence on FRAND terms may, *in principle*, constitute an abuse of a dominant position. Then, at [54], it recognised that,

as in the case before it, the parties may not be in agreement as to what the FRAND terms are; and, importantly, at [55], that in such a situation and *in order to prevent* an action for an injunction from being regarded as abusive, the SEP owner must comply with conditions which secure a fair balance between the competing interests. The substance of this language is then repeated by the court at [71] in answering the referred questions, for here it says that a SEP owner does not abuse a dominant position by bringing an action seeking an injunction *as long as* it has taken the various steps the court goes on to identify. This language is apt for a safe harbour: if the SEP owner complies with the prescribed steps, the commencement of the action will not, in and of itself, amount to an abuse.

271. Thirdly, the language used by the CJEU at [53], [54] and [71] of its judgment may be contrasted with the language it used at [60]. Here the court made clear that a SEP owner *cannot*, without infringing Article 102, bring an action for an injunction without notice or prior consultation with the alleged infringer. The judge was of the view, and we agree, that the SEP owner must therefore give notice to or consult with the alleged infringer prior to the commencement of proceedings, and that if it fails to do so its conduct will necessarily be abusive. Precisely what notice must be given and the nature and extent of the consultations which must be carried out will depend upon all the circumstances of the particular case in issue.

272. Fourthly, the interpretation for which UP contends is also consonant with the purpose and objective of the FRAND regime, addresses the particular problem with which the CJEU was concerned and allows for and accommodates the wide variety of circumstances which may be present in different cases. As we have explained, on the one hand, a SEP owner which is willing to licence its SEP on FRAND terms but is met with an alleged infringer which is holding-out should be able to bring proceedings for injunctive relief. On the other hand, a SEP owner which is holding-up should not be able to use the threat of an injunction to coerce an alleged infringer which is prepared to take a licence on FRAND terms into paying exorbitant licence fees. These objects are, in our judgment, more readily met by the interpretation for which UP contends.

273. For example, if an alleged infringer is familiar with the technical details of the devices in which it is dealing and the SEP it may be infringing but has no intention of taking a licence on FRAND terms, it would in our view be harsh if the SEP owner were found to be in breach of Article 102 and denied an injunction simply because it had not, prior to the commencement of proceedings, taken the formal steps of designating the SEP or specifying the way it had been infringed. But conversely, if a SEP owner has issued proceedings for an injunction against an alleged infringer without taking those steps, it will have moved outside the safe harbour protection of the CJEU protocol and rendered itself open to a finding of abuse, depending on all the circumstances.

274. Fifthly, counsel for UP say and we agree that it is important to have in mind that the procedural rules of member states differ one from another. In some member states there is a real risk of an injunction being granted to restrain infringement of a patent before any determination is made of its validity. So also, in some member states, a final injunction may be granted before a FRAND rate is determined. These factors favour SEP owners. In the UK, however, it is not the practice of the courts to grant an injunction in cases of this kind until the issue of what is FRAND has been resolved. The risk of any alleged infringer being coerced by the commencement of proceedings

into agreeing an unduly high royalty rate is therefore very much lower. These are matters of which the CJEU would be well aware and render it unlikely it would set out an inflexible framework of the kind for which Huawei contends.

275. Sixthly, counsel for UP also point to the fact that these proceedings began before the CJEU gave judgment in *Huawei v ZTE* on 16 July 2015 and, indeed, before Advocate-General Wathelet gave his opinion on 20 November 2014. The case is therefore what the German courts have described as a "transitional case". It would, counsel say, be very unfair if UP were to be found to have conducted itself abusively in failing to comply with some pre-action protocol requirements identified by the CJEU only at a later date. They say this is a further indication of the correctness of the interpretation of the CJEU's judgment for which they argue.

276. In this regard it is, we think, helpful to refer to a number of decisions of the German courts to which we have been taken by the parties. The first is the decision of the Regional Court of Mannheim in *Pioneer v Acer* (cited above at [63]). Here the court took the view that in cases filed before the decision of the CJEU in *Huawei v ZTE*, it did not matter if the claimant had not fulfilled its obligations by the date it began proceedings and only did so thereafter. If the claimant had indeed fulfilled its obligations, albeit at a later date, it would be disproportionate to deprive it of a right to an injunction on a permanent basis. On appeal, the Karlsruhe Regional Court of Appeal, 6th Division, gave judgment on 31 May 2016 upholding the decision of the District Court: *Pioneer v Acer* 2016 6 U 55/16.

277. The next is the decision of the District Court of Düsseldorf in *St Lawrence v Vodafone* (cited above at [64]). This too was a transitional case. The District Court recognised that the law explained by the CJEU in *Huawei v ZTE* was applicable *ex tunc* but continued that this did not preclude the taking into account of any special features of the case, that it was not appropriate to apply the law in a formulaic way and that it would, for example, be a useless bureaucratic approach to require claimant to give the alleged infringer notice of matters of which it was already well aware, just as it would be to require the claimant to get around the difficulty posed by the decision of the CJEU by taking the step of issuing new proceedings. It is our understanding from the translation provided to us that this decision was upheld in all essential respects by the Düsseldorf Regional Court of Appeal: *St Lawrence v Vodafone* 1-15 U 36/16, a decision of 9 May 2016.

278. The third is that of the Düsseldorf Regional Court of Appeal in the case of *Sisvel v Haier* (cited above at [77]) dated 15 March 2017. Here the court emphasised that the principles explained by the CJEU in *Huawei v ZTE* applied to all cases, including transitional cases. It then referred to the decision of the trial judge that the claimant had given the defendant appropriate notice before the trial, but had failed to present to the defendants a FRAND offer either before filing its claim or by the end of the oral hearing, despite the defendants indicating they were willing to take a FRAND licence. In these circumstances the appeal court thought it irrelevant whether and, if so, under what conditions the claimant SEP holder could fulfil its duty of submitting a FRAND offer during ongoing proceedings. It nevertheless proceeded to point out that "in order to not violate Article 102 TFEU", the holder of a SEP which believes it has been infringed must not assert its claim without complying with the CJEU's conditions, and that "before asserting its claims in court" the SEP owner had to notify the alleged

infringer of the alleged patent infringement, name the SEP and indicate how it had been infringed.

279. In our view these decisions are generally consistent with and support the approach of the judge. The German courts have not applied the reasoning of the CJEU in *Huawei v ZTE* in a formulaic way, and they have instead considered any special features of the cases before them and have been prepared to take into account the behaviour of the parties up to the end of their oral hearings.

280. We must now address the outstanding aspects of the submissions made to us on this issue by counsel for Huawei. They contend that the judge fell into error in searching for the *ratio decidendi* of the CJEU's decision. We agree this was inappropriate but we have no doubt that it made no difference to the conclusion to which he came, as he himself made clear in his second judgment on the form of order.

281. Secondly, we are satisfied that the judge was right to approach paragraph [60] of the CJEU decision in the way that he did. Although we initially had some doubts as to whether the judge's interpretation of this paragraph was unduly favourable to Huawei, we have in the end come to the conclusion the judge was right to say that, cast as it is in mandatory terms, it imposes a positive obligation to notify the alleged infringer before commencing proceedings, and that the nature and content of that notice must depend on all the circumstances. Its purpose is to notify the alleged infringer of the rights said to be infringed and that it is prepared to licence the infringer on FRAND terms, in so far as it is not already aware of these matters.

282. Thirdly, compliance with the protocol laid down by the CJEU affords the SEP owner safe harbour protection against a finding of breach of a dominant position arising from the commencement of proceedings for an injunction. If the SEP owner steps outside the protocol, the question whether its behaviour has been abusive must be assessed in light of all of the circumstances.

283. Fourthly, we have no doubt that the decision of the CJEU is focused on the commencement of proceedings and that it was entirely permissible to consider whether it would be appropriate to bar the claim for an injunction after the trial of the infringement, validity and FRAND proceedings. As the judge pointed out, three years had elapsed from the date of the commencement of proceedings and over a year since the finding that Huawei had infringed UP's valid patent rights. The assertion of abuse could have been taken very much earlier. Although it is not necessary to express a concluded view, we see considerable force in the judge's observation that he was "far from being convinced" that a refusal of an injunction in 2017 would have been proportionate.

284. In all these circumstances we are satisfied that the propositions we have framed from [267]-[272] above are correct as a matter of law. We see no basis for interfering with the judge's findings of fact or his assessment of whether UP had behaved abusively.

285. It follows that it is not necessary to address the other point arising on the respondent's notice, namely whether the judge ought to have accepted that the contingent terms of the injunction UP sought bypassed all of the issues which we have addressed. Nevertheless and since we heard argument upon it, we will state our views, albeit briefly. In our judgment this would not have saved UP had we decided the other

points against it. This was far from an undertaking that it would license Huawei on whatever terms the court found to be FRAND.

Was there some other basis upon which relief should have been refused?

286. It only remains to consider whether, as Huawei has also contended, the judge ought to have refused an injunction on the basis that it would be disproportionate or in some way other way inequitable. We think there is nothing in this point. The judge has found and in our view was entitled to find, that a global licence was FRAND and that UP had not engaged in any abusive behaviour. Huawei had infringed two SEPs and UP was entitled to an injunction to restrain further infringement unless Huawei took the licence he had settled.

287. It was suggested that UP had never properly articulated a case that only a global licence would be FRAND. We reject that suggestion. The references with which we have been provided show that it was UP's primary case that it was only ever obliged to offer a global licence and that this is a matter of which Huawei was well aware.

288. It was also contended that UP's offers of a licence diverged so far from a FRAND licence that this should in some way bar its claim for injunctive relief. There is nothing in this point. There was no basis for contending that UP's offers were in any way improper or unusual or impacted adversely upon the progress of the negotiations.

289. Finally, it was suggested that it would be inequitable to grant an injunction which would effectively compel Huawei to take a global licence having regard to the nature and geographical spread of its business and the ongoing litigation in Germany and China. We have already addressed the substance of this point in considering the first ground of appeal. UP has established that two of its SEPs have been infringed. The judge has settled a FRAND licence. Huawei can accept that licence and pursue the litigation on foot in other jurisdictions if it wishes to do so.

290. It follows that ground 3 must be rejected.

Overall conclusion

291. For all of the reasons we have given, this appeal must be dismissed.