11 January, 2022

Via Email:

hbersreview@cma.gov.uk

Competition and Markets Authority

United Kingdom

Subject: Comments on the CMA's Call for Inputs Document in relation to the retained Horizontal Block Exemption Regulations

Dear Madam or Sir,

On behalf of Telefonaktiebolaget LM Ericsson ("Ericsson"), we are pleased to submit the attached comments on the CMA's Call for Inputs Document in relation to the retained Horizontal Block Exemption Regulations ("BERs").

Please note that Ericsson's comments concentrate on a limited number of topics that relate particularly to the section of the Horizontal Guidelines that deals with standardisation agreements, *i.e.*, the questions mentioned under HGL7 of the CMA's questionnaire. Those comments are preceded by a few observations on the scope of the Research & Development BER, as requested by question R&D3. Ericsson is not well placed to provide meaningful input on other topics addressed in the Call for Inputs Document.

Ericsson has responded to the European Commission's Targeted consultation on standardisation agreements in the Horizontal Guidelines. Those comments are attached to provide the CMA additional context.

If you have any questions after reviewing these comments, we would be happy to discuss further.

Sincerely,

[redacted]
Head of Antitrust
(IPR, Americas & Asia-Pacific)
Ericsson

[redacted]
Director, IPR Policy
IPR & Licensing
Ericsson

ERICSSON COMMENTS ON THE CMA'S CALL FOR INPUTS DOCUMENT IN RELATION TO THE RETAINED HORIZONTAL BLOCK EXEMPTION REGULATIONS – CALL FOR INPUTS DOCUMENT

11 January 2022

I. Introduction

With over 100.000 employees and a presence in more than 180 countries in the world, Ericsson is one of the leading providers of Information and Communication Technology (ICT) to service providers. Ericsson enables the full value of connectivity by creating game-changing technology and services that are easy to use, adopt, and scale, making our customers successful in a fully connected world.

Research & development is at the heart of Ericsson's business, and with more than 57,000 granted patents, it has one of the industry's strongest patent portfolios. Over the last three years, Ericsson has invested around 100 BN SEK (or 8.09 BN GBP) in R&D, approximately 18% of its revenues, and remains a world leader in the rapidly changing environment of communications technology – providing equipment, software and services to enable transformation through mobility.

As part of its more than 39.000 employee workforce in Europe, Ericsson employs approximately 16.000 highly skilled engineers across 21 R&D centers. A world-leader in groundbreaking innovations and their subsequent implementation as global standards, Ericsson is a trusted partner and recognized leader within 3GPP cellular standards and other major standardization organizations.[1]

Ericsson welcomes the CMA's initiative to review and, where appropriate, revise the R&D and Specialization Block Exemption Regulations and the Horizontal Guidelines.

Innovation in mobile communication critically depends on collaboration in R&D and the development of technical standards under the auspices of Standard Development Organizations ("SDOs"). Ericsson therefore places great importance on the CMA consultation and considers it to have key strategic importance for its activities in the United Kingdom and abroad.

II. Research and Development BER: need to revisit the requirement of full access to the results of the R&D and access to pre-existing know-how

In question R&D3 (c), the CMA raises the question whether the requirement(s) of full access to the results and/or access to pre-existing know-how be maintained.

Ericsson supports a widening of the R&D block exemption by removing the conditions in the R&D BER of full access to the results of the R&D and access to pre-existing know-how across the board.

[1] See more at https://www.ericsson.com/en/standardization.

Ericsson is of the opinion that effective access to the results of joint R&D projects is important. This implies that Ericsson should be able to use the other parties' results for further R&D or exploitation.

However, it notes that the current conditions set out in Articles 3(2) and 3(3) may create a disincentive to enter into a pro-competitive R&D agreement. For example, the parties to an R&D project may, depending on the specifics of their collaboration and their respective investments and contribution, only be willing to provide the other party limited access to the results of the joint R&D. However, by requiring one party to give the other party "full access to the final results of the joint research for the purposes of exploitation as soon as they become available," on penalty of losing the benefit of the exemption, the R&D BER potentially has a chilling effect on R&D projects that provide for less-than-full access, but are nonetheless pro-competitive. In that respect, it appears that an intellectual property license under future intellectual property rights with a field of use designation may, erroneously, not qualify as "full access."[2]

Similarly, by requiring that "access to any pre-existing know-how" must be given in the case of joint R&D projects that do not involve exploitation and where that know-how is indispensable for the exploitation of the results, the BER discourages ventures that may result in significant efficiencies but that do not provide for licenses to pre-existing (foreground and background) know-how and intellectual property. This is particularly problematic as it may be uncertain which "results" the project may generate in the future and how those results may be "exploited."

Ericsson submits that it would be preferable to rely on the parties' own incentives to enter into the R&D project at issue, instead of reserving the benefit of the BER to R&D projects that involve full access to pre-existing know-how and the results of the collaboration. Indeed, the parties' incentives will generally be aligned to exploit the results of their collaboration and bring about the associated efficiencies.

III. Standardization Agreements: need to provide clarification and to address potentially anti-competitive collusive conduct

Introduction

The Horizontal Guidelines include a detailed chapter on the assessment of standardization agreements, i.e., agreements that seek to define the technical or quality requirements with which products, production processes, services or methods may comply. Section 7 of the Horizontal Guidelines concentrates specifically on standardization agreements involving IPRs that give rise to collaborative industry standards.[3]

The Horizontal Guidelines recognize that IP laws and competition laws promote innovation and enhance consumer welfare. They also recognize the dynamic competition-enhancing nature of

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[2] On the procompetitive benefits of field of use designations see e.g. U.S. Dep't of Justice Business Review Letter re the Avanci patent licensing platform at 19-20 https://www.justice.gov/atr/page/file/1298626/download.

[3] Communication from the Commission — Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements Text with EEA relevance

IPRs.4 They further recognize that standard setting and IPRs are generally procompetitive, but that anticompetitive concerns may arise in specific circumstances, including some related to IPR-related conduct.5 An effects-based assessment is required before such a violation can be established to determine whether the agreement restricts competition and constitutes a violation of Article 101 TFEU.6

In particular, the Horizontal Guidelines presume that standardization agreements facilitate technical interoperability and compatibility and give rise to efficiencies that are passed on to consumers.7 The Horizontal Guidelines state that there is no presumption of market power by holding or exercising essential IPR and that market power will be assessed on a case-by-case basis.8 In addition, the Horizontal Guidelines explicitly acknowledge that different types of companies with different business models, incentives and interests in standardization and standard-setting organizations exist.9 With respect to fees charged for the use of IPRs, the Horizontal Guidelines state that they should be assessed based on whether they bear a reasonable relationship to the economic value of the IPR10 and that determining whether royalty rates are excessive must meet the conditions for an abuse of dominant position as set out in Article 102 TFEU and the case law of the Court of Justice.11

Ericsson considers that these statements of principle provide a valuable and helpful guidance and framework that should be maintained in any revised version of the Horizontal Guidelines.

However, Ericsson also believes the Horizontal Guidelines either lack coherence in a number of important respects or give rise to unnecessary uncertainty. It therefore respectfully invites the CMA to address and clarify its position on the following issues.

Access to the standard

The Horizontal Guidelines, in particular paragraph 294, have given rise to some debate about the notion of providing (effective) access to the standard. Paragraph 294 provides that if the essential IPR for implementing the standard(s) is not at all accessible, or accessible only on discriminatory terms for members or third parties (i.e., non-members of the relevant standard-setting organization), this may discriminate or foreclose or segment markets.

This statement has recently led a few players to argue that IPR owners, having agreed to be prepared to grant licenses on FRAND terms under their SEPs, as provided for by the IPR policy of the relevant standards development organization, are under an obligation to license their patents to any party at any level of the supply chain who desires a license. While Ericsson is well aware of the current debate on this issue in a number of jurisdictions, it recommends that competition enforcement agencies, including the CMA, refrain from using the Guidelines to mandate particular

4 *Id.* ¶ 269.
5 *Id.* ¶¶ 263-266, 268.
6 *Id.* ¶¶ 292-299.
7 *Id.* ¶ 263.
8 *Id.* ¶ 269.
9 *Id.* ¶ 267.
10 *Id.* ¶ 289
11 *Id.* ¶ 269 & n2, 287, 290

FRAND licensing models for where in the supply chain licensing should or should not take place, and allow each standard development organization (SDO) to address the issue, if necessary, in their respective IPR policies. In any event, an obligation to license patents to any party at any level of the supply chain would jeopardize the sustainability of the procompetitive standards essential patents licensing ecosystem and neither European, nor U.K., competition law provide for such an obligation. Ericsson respectfully requests the CMA to clarify this important point.

For additional context, please refer to Ericsson's submission to the European Commission on this topic (attached), in particular its responses to questions 12 (pages 6-7 of attached annex) and 31 (pages 11-12 of attached annex).

Standard development in restricted groups of SDOs

The Guidelines provide that unrestricted participation in standard development and transparent procedures for adopting the standard are key principles to avoid that standardization infringe the competition rules.[12]

It is important that collaboration on technological solutions remains open to all parties that can meaningfully contribute to the standard development work. Accordingly, criteria for participating in standard development activities – including in the context of ad-hoc collaborations within SDOs can – while remaining objective and non-discriminatory – legitimately be based on substantive merits of potential participants that are reasonably related to the development of the standards at issue. The European Commission has already acknowledged this principle in its Ships Classification decision and the X/Open Group case.

Ericsson is aware of at least two instances where the requirements of transparency and openness were very significantly compromised and gave rise to competition law investigations. These examples are discussed in detail in Ericsson's attached submission to the European Commission. See, in particular, pages 18-22 of attached annex.

The first example relates to the DensiFi Group, organized by a group of companies around the 802.11ax IEEE standardization work. Ericsson is of the view that the covert work of the DensiFi group, coupled with an agreement among the members of that group to not vote individually, was not only contrary to the SDO governance rules, but also involved a competition law violation.[13]

The second example relates to a U.S. investigation into the process used by the GSM Association in the development its remote SIM provisioning standard. The process, later corrected, provided some participants with certain privileges not available to other members and participants,

[12] *Id*. ¶¶ 281-282

[13] On the illegal actions of DensiFi see, e.g. https://en.wikipedia.org/w/index.php?title=IEEE_802.11ax&diff=802613027&oldid=801237595#Illegal_actions_of_DensiFi_SIG; MLEX, DOJ probes role of special interest group in new WiFi standard (26 January, 2018) https://mlexmarketinsight.com/news-hub/editors-picks/area-of-expertise/technology-media-telecoms/doj-probes-role-of-special-interest-group-in-new-wifi-standard.

allowing that single interest group to exercise undue influence in the standard development process.[14]

In light of the above, Ericsson respectfully observes that additional guidance would be appropriate in relation to "Special Interest Groups" (SIGs) composed of SDO members that operate with restricted membership (sometimes secretly) to manipulate consensus-based standards-development activities in ways that may harm competition, similar to how abuse of the standard-setting process has been found to harm competition in other contexts. Ericsson suggests that where members of such SIGs collectively can and do exercise effective control or influence over the standards-development process, such collusive conduct may well be illegal anti-competitive collusive conduct.

Guidance on FRAND rates

The Horizontal Guidelines seek to provide guidance on the meaning of FRAND commitments and provide methodologies to establish whether royalty rates offered by IP owners are FRAND, in particular by relying on independent experts' assessment of the relevant IPR portfolio's objective quality and centrality to the standard at hand, a comparison with rates charged for IPR in other comparable standards, as well as comparisons based on ex ante licensing terms.

Ericsson believes that the Horizontal Guidelines should refrain from providing any detailed guidance on the methodologies that may be applied in the context of Article 101 TFEU or national competition law and, in addition, reconsider the guidance provided in the Horizontal Guidelines.[15] Indeed, the assessment of the FRAND nature of royalty rates and the methodologies applied in that regard should in principle be left with competent courts and tribunals. This would also be in line with the European Commission's own observation that "there is not a one-size-fits-all solution to what FRAND is: what can be considered fair and reasonable differs from sector to sector and over time," that "the parties are best placed to arrive at a common understanding of what are fair licensing conditions and fair rates" and that they are "in the best position to determine the FRAND terms most appropriate to their specific situation."[16]

In its submission to the European Commission (attached), Ericsson provides additional context on the contractual nature of FRAND commitments, the need to refrain from providing guidance on the methodologies to establish FRAND terms in the context of SDOs and ex ante declarations of royalties. Please refer to pages 29-34 of attached annex.

Joint negotiation of licenses by potential licensees

Ericsson is very skeptical that cooperation between users of standard essential technology in Collective Licensing Negotiations Groups (LNGs) would readily give rise to lower transaction cost and other efficiencies. In fact, it believes that LNGs are more likely to serve as collusive

[14] Assistant Attorney General for Antitrust, Makan Delrahim, Letter to Mr. Timothy Cornell re GSMA Business Review Letter Request (Nov. 27, 2019) https://www.justice.gov/atr/page/file/1221321/download.

[15] It is also noted that the question whether licenses are offered on FRAND terms does not typically arise in the context of horizontal cooperation, but rather is in most cases a "vertical" topic.

[16] Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee, Setting out the EU approach to Standard Essential Patents, COM/2017/0712 final, at 6, *available at* https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017DC0712&from=EN.

buyer-cartel like devices that may be used to delay and complicate licensing discussions and frustrate the Huawei/ ZTE licensing framework.

One example where an LNG was used as a tactic to delay entering into legitimate licensing agreements is discussed here: FOSS Patents: SEP Licensing Negotiation Groups -- Part I: analogy to patent pools entails false symmetry between facilitating and complicating automotive patent licenses and here: FOSS Patents: SEP Licensing Negotiation Groups -- Part II: justice delayed is justice denied when unwilling licensees can hide behind a consensus-building effort.

In its attached submission to the European Commission, Ericsson discusses the potentially problematic aspects of LNGs in more detail. See in this respect pages 22- 29, in particular page 26. It also presents a real-life example of coordinated hold-out conduct in the context of the Indian Cellular Association (page 23 of attached annex).

Ericsson invites the CMA to provide additional guidance to prevent anticompetitive collusive conduct in the guise of LNGs from occurring.[17] At a minimum, such initiatives require careful assessment.

Attached: Ericsson submission to the European Commission dated

[17] Suggestions have been made, in particular by the SEP Expert Group, that LNGs may be beneficial. *See* Group of Experts on Licensing and Valuation of Standard Essential Patents "SEPs Expert Group" (E03600), Contribution to the Debate on SEPs 168 (Jan. 2021), *available at* https://ec.europa.eu/docsroom/documents/45217. However, as SEP licensing must comply with FRAND commitments, the joint purchase of SEP licenses may not be readily comparable to the purchase of other inputs.

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Targeted consultation on standardisation agreements in the Horizontal Guidelines

Fields marked with * are mandatory.

Introduction

Chapter 7 of the Communication from the Commission - Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal cooperation agreements ('Horizontal Guidelines') provides general principles on the **competitive assessment of standardisation agreements**.

The Commission is currently reviewing the Horizontal Guidelines, as part of the broader review of the horizontal block exemption regulations on R&D and specialisation agreements that expire at the end of 2022.

The following questions concern **standardisation agreements**.

No statements, definitions, or questions in this consultation may be interpreted as an official position of the Commission. All definitions provided in this document are strictly for the purposes of this public consultation and are without prejudice to definitions the Commission may use under current or future EU law or in decisions.

Submission of your contribution

You are invited to reply to this targeted consultation by answering the questionnaire online. You may reply to the questionnaire in any official EU language. To facilitate the analysis of your replies, we would kindly ask you to keep your answers concise and to the point. You may include documents and URLs for relevant online content in your replies.

For your information, you have the option of saving your questionnaire as a 'draft' and finalising your response later. In order to do this you have to click on 'Save as Draft' and save the new link that you will receive from the EUSurvey tool on your computer. Please note that without this new link you will not be able to access the draft again.

The responses to this consultation will be analysed and an (anonymous) summary of the main

points will be made public on DG Competition's dedicated page on the horizontal review.

In case of questions, you can contact us via the following functional mailbox: COMP-HBERS-REVIEW@ec.europa.eu.

In case of technical problems, please contact the Commission's CENTRAL HELPDESK.

Deadline for your replies

Please reply by **30 September 2021**.

About your organisation

* 1 Name of your organisation

Telefonaktiebolaget LM Ericsson

* 2 Name and contact details (email and phone number) of contact person.

Torshamnsgatan 21, 164 83 Stockholm, Sweden
Contact details: Patrick Hofkens, Director IPR Policy (patrick.hofkens@ericsson.com), +32 2 745 12 11; Bernardo Matos, Director IPR Policy (bernardo.matos@ericsson.com); Dina Kallay, Head of Antitrust, IPR, Americas & Asia-Pacific (dina.kallay@ericsson.com)
EU Transparency ID: Registration Number 02021363105-42

3 Describe briefly your organisation.

With over 100.000 employees and a presence in more than 180 countries in the world, Ericsson is one of the leading providers of Information and Communication Technology (ICT) to service providers. We enable the full value of connectivity by creating game-changing technology and services that are easy to use, adopt, and scale, making our customers successful in a fully connected world.

Research & development is at the heart of Ericsson's business, and with more than 57,000 granted patents, it has one of the industry's strongest patent portfolios. Over the last three years, Ericsson has invested around 100 BN SEK (or 11 BN EUR) in R&D, approximately 18% of its revenues, and remains a world leader in the rapidly changing environment of communications technology – providing equipment, software and services to enable transformation through mobility.

As part of its more than 39.000 employee workforce in Europe, Ericsson employs approximately 16.000 highly skilled engineers across R&D centers in Finland, France, Germany, Hungary, Ireland, Italy, Poland, Spain and Sweden. This represents over 64% of Ericsson's total R&D personnel.

4 Please indicate your type of company or organisation

Micro enterprises: (i) staff headcount is less than 10 and (ii) turnover does not exceed EUR 2 million or the balance sheet total does not exceed EUR 2 million

Small-sized enterprises: (i) staff headcount is less than 50 and (ii) turnover does not exceed EUR 10 million or the

balance sheet total does not exceed EUR 10 million

Medium-sized enterprises: (i) staff headcount is less 250 and (ii) turnover does not exceed EUR 50 million or the balance sheet total does not exceed EUR 43 million

- ○ Micro enterprise
- ○ Small enterprise
- ○ Medium-sized enterprise
- ○ Association of SMEs
- ◉ Large enterprise
- ○ Other

5 Please provide the following information about your organisation

	Brief answer
Industry sector(s) in which your organisation is active	Telecommunications
Product(s) manufactured/produced by your organisation	Network equipment
Service(s) provided by your organisation	Network related services and digital services (e.g. cloud, IoT)
Manufacturing/production facilities of your organization and their location (number and country)	Brazil, P.R. China, Estonia, India, Mexico, Poland, Romania, USA
Revenues of FY2020	SEK 232,4 billion
Revenues of FY2019	SEK 227,2 billion
Number of employees in your organisation in FY2020	100.824
Number of employees in your organisation in FY2019	99.417

6 Describe your role in the development of standards. Provide the names of the standard setting organisations ("SSOs") that you engaged in during the last ten years. For the purposes of this consultation, SSOs cover both the formal, open standardisation bodies and the private independent bodies, alliances, partnerships or initiatives whose purpose is to develop and adopt industry standards.

Over the last 10 years Ericsson has been active in almost 100 standard development and standard setting organizations (SDO & SSO)

In most organizations Ericsson has played an active role as a developer and contributor of technology to support the creation of open technical standards. Among those are the European Telecommunications Standards Institute (ETSI), 3GPP, the International Telecommunication Union - Telecom (ITU-T), the Internet Engineering Task Force (IETF), the international Organization for Standardization (ISO) and the Institute of Electrical and Electronics Engineers Standards Association (IEEE SA).

Our replies in the present consultation consider our experience with these SDOs.

IPR disclosure requirements

The Horizontal Guidelines provide that standardisation agreements which are normally not restrictive of competition would need to require a good faith disclosure, by participants, of their IPR that might be essential for the implementation of the standard under development. The Horizontal Guidelines further provide that it would be sufficient if the participant declares that it is *likely to have IPR claims over a particular technology* (without identifying specific IPR claims or applications for IPR).

The questions in this section cover both disclosure requirements currently foreseen in the Horizontal Guidelines (for general IPR claims) as well as disclosure requirements as regards specific IPR, specific IPR claims, specific applications to IP protection offices for IPR protection, etc.

For the purposes of this consultation, standard setting organisations ("SSOs") cover both the formal, open standardisation bodies and the private independent bodies, alliances, partnerships or initiatives whose purpose is to develop and adopt industry standards.

7 Do you have experience with standard setting organisations ("SSOs") which require (for instance in their Intellectual Property Rights ('IPR') policy) that participants disclose their IPR that might be essential for the implementation of the standard under development by **identifying specific IPR (patent) claims**?

- ○ Yes
- ◉ No
- ○ No opinion / no experience

10 Please explain your choices. If you chose "Other elements", describe those here.

11 Explain which impact the lack of such requirement has had on

	Very negative	Negative	Neutral	Positive	Very positive	No opinion
Access to the standard being developed	○	○	◉	○	○	○
The licensing of the essential IPR	○	○	◉	○	○	○
Any costs/burden for your organisation	○	○	○	◉	○	○
Benefits for your organisation	○	○	◉	○	○	○
The standard development /setting process in general	○	○	◉	○	○	○
Your respective industry /market (s)	○	○	○	○	○	◉
Other elements	○	○	○	○	○	◉

12 Please explain your choices. If you chose "Other elements", please describe those here.

The consultation questions seem to confuse (i) patent disclosure with (ii) (FRAND licensing) declaration: with a disclosure obligation the SSO/SDO typically tries to obtain information on the IPR that may be or become essential; while with a (licensing) declaration the SSO/SDO tries to obtain the assurance of the IPR owner that it is willing to make its essential IPR accessible.

Some SSO/SDOs require disclosure of individual patents but we have no experience with SSO/SDOs *requiring* the disclosure of individual patent *claims*. This distinction is important as a patent usually encompasses multiple claims.

Below we provide four examples of SDO IPR Policies that require individual *patent* disclosure (rather than the disclosure of a specific patent *claim*): IETF, ETSI, TSDSI and AISG

IETF section “5.4.1. Content of IPR Disclosures” of the Intellectual Property Rights in IETF Technology states (https://datatracker.ietf.org/doc/rfc8179/) :

An IPR disclosure must include the following information to the extent reasonably available to the discloser: (a) the numbers of any issued patents or published patent applications (or indicate that the disclosure is based on unpublished patent applications), (b) the name(s) of the inventor(s) (with respect to issued patents and published patent applications), (c) the specific IETF Document(s) or activity affected, and (d) if the IETF Document is an Internet-Draft, its specific version number. In addition, if it is not reasonably apparent which part of an IETF Document is allegedly Covered by disclosed IPR, then it is helpful if the discloser identifies the sections of the IETF Document that are allegedly Covered by such disclosed IPR.

ETSI’s IPR Policy includes the obligation for individual patent disclosure in Section 4, juncto 6bis and the

IPR Information Statement Annex. The text of these sections and annex can be found in the ETSI Directives, ANNEX 6: ETSI Intellectual Property Rights Policy, via the following link: https://www.etsi.org/about/our-operations#mytoc3

TSDSI's IPR Policy includes the obligation for individual patent disclosure in Section 3 and the IPR INFORMATION STATEMENT form. The text of this IPR Policy and the relevant Section and form can be found via the following link: https://tsdsi.in/wp-content/uploads/2019/10/TSDSI-PLD-40-V1.0.0-20141217_IPR-policy.pdf

AISG's IPR Policy requires in its section 4.1 the disclosure of individual patents.

The disclosure requirement of individual patents or patent claims has no impact per se on accessibility to the standards. As indicated before, the disclosure of the patent (claim) is not the same as the (licensing) declaration for that same patent (claim). Conversely, access to the standard is ensured as soon as there is a (licensing) declaration: a general/blanket or an individual declaration.

For the standardization process, the key issue is ensuring access to the standard; hence the particular importance of the blanket (licensing) declaration.

For a contributor to the standardization effort, the individual disclosures of IPR (claims) require more administrative burden on the organization.

For an implementer of the standard, the critical element is the assurance that all IPR included in the standard is accessible. A general or blanket (licensing) declaration, by itself, can address that element.

Under "Other elements" of question 11, we want to bring the specific situation of negative declarations under the attention. In the event of a negative declaration, the individual disclosure of patent (claims) / patent applications at an early stage can allow the SDO to quickly take appropriate measures to either discuss with the IPR owner whether the IPR in question can be made accessible, or to try to find other alternative technical solutions. In this specific scenario, the lack of an individual disclosure of a specific IPR can have a negative impact.

13 Do you have experience with SSOs which require (for instance in their IPR policy) that participants disclose their IPR that might be essential for the implementation of the standard under development by **identifying applications to the IPR protection offices for their IPR**?

- (●) Yes
- ( ) No
- ( ) No opinion / no experience

14 Please provide here the list of such SSOs and the excerpts of the relevant IPR disclosure policy.

Reference is made to the information provided under question 12. Of the four examples cited in our reply, only the IPR Policy of IETF requires patent owners to disclose either patents or published patent applications.

Under the ETSI IPR Policy and the AISG IPR Policy, the definition of “IPR” covers both patents and patent applications. However, the disclosure obligation stated in section 4 of the IPR Policies (see reference inserted above under question 12) relates to “ESSENTIAL IPR”, whereby “ESSENTIAL” is defined in the IPR Policy to mean that it is not possible on technical grounds to make, sell, lease, otherwise dispose of, repair, use or operate EQUIPMENT or METHODS which comply with a STANDARD without infringing that IPR. Only valid patents can be infringed.

15 Explain which impact such requirement has had on:

	Very negative	Negative	Neutral	Positive	Very positive	No opinion
Access to the standard being developed	○	○	◉	○	○	○
The licensing of the essential IPR	○	○	◉	○	○	○
Any costs/burden for your organisation	○	◉	○	○	○	○
Benefits for your organisation	○	○	◉	○	○	○
The standard development /setting process in general	○	○	◉	○	○	○
Your respective industry /market (s)	○	○	○	○	○	◉
Other elements	○	○	○	○	○	◉

16 Please explain your choices. If you chose "Other elements", describe those here.

Reference is made to the information provided under question 12. The same logic applies here; the negative cost burden impact refers to the fact that the individual disclosures of IPR require more administrative work from the organization. One further difference is that the outcome of the patent application may not always be clear at the moment of disclosure and thus the uncertainty about its potential essential nature will depend on (i) the outcome of the patent process and (ii) the evolution of the standardization process.

However, as indicated above, this potential uncertainty in the disclosure doesn’t impact the accessibility of the standard which is the main objective of the declaration frameworks.

Under “Other elements”, we want to bring the specific situation of negative declarations under the attention as mentioned in our answer to question 12.

17 Explain which impact the lack of such requirement has had on

	Very negative	Negative	Neutral	Positive	Very positive	No opinion
Access to the standard being developed	○	○	○	○	○	○
The licensing of the essential IPR	○	○	○	○	○	○
Any costs/burden for your organisation	○	○	○	○	○	○
Benefits for your organisation	○	○	○	○	○	○
The standard development /setting process in general	○	○	○	○	○	○
Your respective industry /market (s)	○	○	○	○	○	○
Other elements	○	○	○	○	○	○

19 Do you have experience with SSOs which require (for instance in their IPR policy) that participants disclose their IPR that might be essential for the implementation of the standard under development by **linking their specific IPR claims to the relevant sections of the standard?**

- ○ Yes
- ◉ No
- ○ No opinion / no experience

23 Explain which impact the lack of such requirement has had on

	Very negative	Negative	Neutral	Positive	Very positive	No opinion
Access to the standard being developed	○	○	◉	○	○	○
The licensing of the essential IPR	○	○	◉	○	○	○
Any costs/burden for your organisation	○	○	◉	○	○	○
Benefits for your organisation	○	○	◉	○	○	○
The standard development /setting process in general	○	○	◉	○	○	○
Your respective industry /market (s)	○	○	○	○	○	◉
Other elements	○	○	○	○	○	◉

24 Please explain your choices. If you chose "Other elements", please describe those here.

As explained above in our answer to question 12, the disclosure of IPR is different from the licensing declaration in relation to such IPR. With regard to the disclosure of IPR, the quality of the information disclosed under such requirement very much depends on the timing of such disclosure, the IPR owner that is making the disclosure and potentially other elements such as the technical support for such disclosure (e. g. there have been cases where the manual entry and handling of disclosures has led to errors).

We would also like to reference a very recent report made for the Joint Research Centre of the European Commission (Landscape Study of Potentially Essential Patents Disclosed to ETSI, A study carried out in the context of the EC 'Pilot Study for Essentiality Assessment of Standard Essential Patents' project, Authors: Rudi Bekkers, Emilio Raiteri, Arianna Martinelli, Elena M. Tur Editor: Nikolaus Thumm, JRC 2020) which confirms the views shared above by stating the following:

" While the ETSI IPR database of disclosed potentially standard-essential patents is by far the most sophisticated one, it is a non-trivial task to identify patents from that database and clean/harmonize/select/de-duplicate/transform that data into information to be used for a given purpose, such as input for a process of essentiality assessment." (page 57)

And

" It is important, however, to be well aware of the intrinsic limitations of such data if used for other purposes. Among other things, patents disclosed as being potentially essential (1) may not be owned (anymore) by the disclosing firm, (2) may not be factually essential (3) may not be granted, (4) may not be enforceable (valid, non-expired, renewal fees paid, etc.), (5) may greatly differ in technical merit, (6) may relate to functionalities not relevant for a certain product category (e.g., a mobile phone or an infrastructure product), and (7) may relate to optional features that might not be used in a given device conforming to the standard. Moreover, the patent families of these patents may differ substantially in terms of geographical coverage." (page 58)

Furthermore, the timing of the disclosure has an important impact; if the disclosure is made very early on, then there is no certainty about the status of the standard development; the standard is at that moment subject to further change. In addition, at such early stage there is very often no certainty about the status of the patent application. These combined uncertainties (standard & patent status) may negatively impact the quality and/or reliability of the information disclosed.

25 Do you have experience with SSOs which require (for instance in their IPR policy) that participants disclose ex ante the **most restrictive licensing terms**, including the maximum royalty rates such participants would charge?

- ○ Yes
- ◉ No
- ○ No opinion/not applicable

30 Explain which impact the lack of such requirement has had on

	Very negative	Negative	Neutral	Positive	Very positive	No opinion
Access to the standard being developed	○	○	◉	○	○	○

The licensing of the essential IPR	○	○	◉	○	○	○
Any costs/burden for your organisation	○	○	◉	○	○	○
Benefits for your organisation	○	○	◉	○	○	○
The standard development /setting process in general	○	○	○	○	◉	○
Your respective industry /market (s)	○	○	◉	○	○	○
Other elements	○	○	○	○	○	◉

31 Please explain your choices. If you chose "Other elements", please describe those here.

Access to the standard is secured by licensing declarations (cf. our answer to question 12 of this questionnaire), and ex ante disclosures of licensing terms are not necessary to achieve that objective.

The JRC study on SDO governance (Making the Rules; The Governance of Standard Development Organizations and their Policies on Intellectual Property Rights, Authors: Justus Baron, Jorge Contreras, Martin Husovec, Pierre Larouche, Editor: Nikolaus Thumm, 2019) only mentions the example of the VITA organization as an SDO that mandates ex ante disclosure. Although we have no experience with this particular SDO, we believe (from publicly available information) that its activity field is very focused. The number of disclosures to this SDO is limited: their website cites 12 (twelve) patent disclosures / declarations. (cf. https://www.vita.com/Essential-Patents)

The situation mentioned above is very different from the standardization work in SDOs like ETSI. The JRC report issued in 2020 “Landscape Study of Potentially Essential Patents Disclosed to ETSI” (A study carried out in the context of the EC ‘Pilot Study for Essentiality Assessment of Standard Essential Patents’ project, Authors: Rudi Bekkers, Emilio Raiteri, Arianna Martinelli, Elena M. Tur Editor: Nikolaus Thumm) indicated that there are 25.072 patent families in the ETSI disclosure database (figures available until November 2019).

The significant difference in the number of patent disclosures is not surprising, as standardization work in the telecom sector is complex, extremely dynamic, covering a very broad technical scope, involving significant numbers of technology contributions and long evolution cycles over many years.

More specifically, standard development in the telecom sector involves the setting of requirements and identification of a multitude of technical problems which are solved by substantial R&D efforts conducted by different contributors. Thus, telecom standards are collaboratively created with the involvement of many companies (often with a global footprint) with a view to achieving high-performance and built up over a long time-period (years or even decades) based on thousands of technical contributions.

The economic value of such standardized technology is then realized after its development. This can take place many years after the initial development of such standards.

As a result, before a standard is written, the existence, distribution, and ownership of patents essential to the future standard, as well as the economic value of such patented technology, may be uncertain. An ex-ante disclosure of licensing terms for such standards may be very difficult to provide.

It is therefore not surprising that the VITA example, cited in the above mentioned JRC study, is the only one of an SSO/SDO that seems to have mandated the ex-ante disclosure of licensing terms, and starting from that one example it is impossible to argue that the lack of such requirement has a material impact on the licensing of SEPs.

We believe that the lack of such requirement may play a role in the standard development process. Indeed, mandating an ex-ante disclosure of licensing terms may shift the focus of the discussions in the SDO/SSO work from the collaborative creation of leading-edge technology, to discussions on the commercial terms for the licensing of such technology.

A good example of such shift in focus and the consequences thereof can be found in IEEE, where following the introduction of a highly contested IPR Policy change, technical working groups reported that significant time was spent discussing IPR issues in the technical meetings. This in turn caused important delays in the release of new WiFi standards by IEEE. The minutes of the meeting that discussed the impact of the changed patent policy on the development in IEEE 802 (the group that develops the WiFi standard) mentions, inter alia, the following examples of problems encountered during the technical discussions (https://www.ieee802.org/minutes/2016_01/2016-01-22-minutes-v1.pdf) :

“It changed the dynamic on how people collaborate on new technology development. IPR is now a major consideration.”

“There was loss of momentum for 802.11ah due to the issue.”

“Delay in progress of 802.11ah, 4 - 6months.”

32 Based on your experience, at what moment in time during the development of a standard **does the oblig essential** for the implementation of the standard under development?

Please select the applicable option for each of the identified types of disclosure requirements listed below:

"General disclosure" of IPR or IPR claims refers to blanket disclosure requirements without the identification of speci

	Ongoing disclosure requirement	Only at the start of the standardisation process	At the end of the process (before adoption of the standard)
General disclosure of IPR likely reading **on the standard** being developed	☑	☐	☐
General disclosure of IPR claims likely reading on **the standard** being developed	☐	☐	☐
General disclosure of IPR claims likely reading on **specific sections** of the standard	☐	☐	☐
Disclosure of **specific IPR claims** likely reading on **the standard** being developed	☐	☐	☐
Disclosure of **specific IPR claims** likely reading on **specific sections** of the standard	☐	☐	☐
Disclosure of **specific IPR claims** linked to a **particular technology** incorporated in the standard	☐	☐	☐
Disclosure of **most restrictive licensing terms**, including maximum royalties	☐	☐	☐

33 Based on your experience, **at what point** of the standard development process **should there be an obli** for the implementation of the standard under development in order to ensure effective access to the standard

Please select the applicable option for each of the identified types of disclosure requirements listed below:

"General disclosure" of IPR or IPR claims refers to blanket disclosure requirements without the identification of speci

	Ongoing disclosure requirement	Only at the start of the standardisation process	At the end of the process (before adoption of the standard)
General disclosure of IPR likely reading on **the standard** being developed	☑	☐	☐
General disclosure of IPR claims likely reading on **the standard** being developed	☐	☐	☐
General disclosure of IPR claims likely reading on **specific sections** of the standard	☐	☐	☐
Disclosure of specific IPR claims likely reading on **the standard** being developed	☐	☐	☐
Disclosure of specific IPR claims likely reading on **specific sections** of the standard	☐	☐	☐
Disclosure of specific IPR claims linked to a **particular technology** incorporated in the standard	☐	☐	☐
Disclosure of most restrictive licensing terms, including maximum royalties	☐	☐	☐

34 Please explain your choices.

For both questions 32 and 33, we have worked with the assumption that the first question relates to blanket or general declarations, and not to IPR disclosure. The difference between 'disclosure' and 'declaration' was highlighted and explained in our answer to question 12 of this consultation.

A blanket/general declaration can take different forms; for example, blanket/general declarations can be made with reference to a specific standard or specification, with reference to a project or activity of a working group, with regards to the IPR contained in the contributions only or with regards to all the IPR of the declarant.

Based on our experience, we believe that a blanket/general declaration can be made from the moment the potential contributor to the standardization effort starts contributing to the standardization work; this can be different from one SDO/SSO to another.

Mandating that such blanket/general declaration would have to be made before the start of standardization does not acknowledge the dynamic character of the standardization activity, and could actually exclude parties that joined the standardization effort at a later stage, i.e. parties that join the standardization effort after it had already started. Given the timeline of certain standardization efforts it should be expected that this later entry happens regularly.

As indicated before, it is important to make sure that the unavailability of a certain technology (by lack of licensing declaration or negative licensing declaration for the IPR covering such technology) is signaled quickly to the SDO/SSO so that the SDO/SSO can take the necessary corrective actions to ensure accessibility to the standardized technology.

We have difficulties understanding the other queries in questions 32 and 33, as 'disclosures' have no impact per se on the 'access to the standard' (cf. our answer to question 12 of this consultation)

35 Please describe any experience or knowledge you may have of SSO's policies which include **any other requirements** than the ones identified in the previous questions and that are aimed at ensuring effective access to the standard being developed. This may include for instance requirements to verify whether a patent is valid, the expiration date of the patent, information about the owner of a patent or the change of patent ownership, voluntary disclosure of claim charts or information on whether a patent is being litigated, etc.

We are not aware of any SSO or SDO requiring this type of information to be provided.

36 Based on your experience or knowledge, which of the following requirements as regards the **good faith disclosure** by the participants of their IPR that might be essential for the implementation of the standard under development would you consider most effective for ensuring effective access to a standard :

	Not effective	Somewhat effective	Neutral	Effective	Very effective	No oinion /no experience
General disclosure of IPR likely reading on the standard being developed	○	○	○	○	◉	○
General disclosure of IPR claims likely reading on the standard being developed	○	○	○	○	○	◉
General disclosure of IPR claims likely reading on specific sections of the standard	○	○	○	○	○	◉
Disclosure of specific IPR claims likely reading on the standard being developed	○	○	○	○	○	◉
Disclosure of specific IPR claims likely reading on specific sections of the standard	○	○	○	○	○	◉
Disclosure of specific IPR claims linked to a particular technology incorporated in the standard	○	○	○	○	○	◉
Disclosure of most restrictive licensing terms, including maximum royalties	○	○	○	○	○	◉
Requiring an update, if the patent has been invalidated or confirmed valid by a national court	○	○	○	○	○	◉
Information about the expiration date of a patent	○	○	○	○	○	◉
Information about the owner of a patent/change in patent ownership	○	○	○	○	○	◉
Voluntary disclosure of claim charts	○	○	○	○	○	◉
Information on whether a SEP is being litigated	○	○	○	○	○	◉
Information on whether the essentiality has been confirmed by an independent third party	○	○	○	○	○	◉

Information on whether there is a licensing programme for a particular SEP (either through a pool or bilateral)	○	○	○	○	○	◉
Other	○	○	○	○	○	◉

37 Please explain your choices. If you chose "Other" please explain.

Many of the comments made in question 34 apply also to this question and the preceding question 36;

- for the first question, we have assumed that it relates to blanket or general declarations, and not to IPR disclosures (cf. our answer to question 34 of this consultation);

- we have difficulties understanding the other queries in questions 36, as 'disclosures' have no impact per se on the 'access to the standard' (cf. our answer to question 12 of this consultation);

- all the remaining questions relate to the provision of additional information. Such information may have some utility but does not alter the accessibility of the standard. As indicated before in this consultation, the accessibility of the standardized technology can be ensured through the provision of a blanket/general licensing declaration or through an early indication to the SDO/SSO of the unavailability of a certain technology (by lack of licensing declaration or negative licensing declaration for the IPR covering such technology) so that the necessary corrective actions to ensure accessibility to the standardized technology can be taken. Specifying additional information is not necessary for accessibility.

Participation rules/working methods for standard setting organisations

One condition identified in the Horizontal Guidelines for finding that a standardisation agreement would normally not be restrictive of competition, is that participation in the standard setting is unrestricted.

The Horizontal Guidelines also provide that a standardisation agreement would not be likely to lead to any restrictive effects of competition if it would not have been possible to adopt the standard in the absence of a limitation on the number of participants.

In certain situations, the potential negative effects of restricted participation may be removed or at least lessened by ensuring that stakeholders are kept informed and consulted on the work in progress.

38 Please describe your **experience with SSOs which allow that the standard is developed in a restricted group**.

Please provide in particular the following information: (i) describe the limitation that were considered, (ii) explain how the companies participating in the development were selected, (iii) explain in which way the limitation on the number of participants contributed to the adoption of the standard and (iv) explain how /whether the other stakeholders were kept informed on the work in progress and/or consulted on the work in progress.

As mentioned above, for the purposes of this consultation, SSOs cover both the formal, open standardisation bodies and the private independent bodies, alliances, partnerships or initiatives whose purpose is to develop and adopt industry standards.

First, we would like to make an important distinction between occasional collaboration on technology solutions and a more structural/permanent organization of such collaboration. The first type of collaboration is normal in any SDO/SSO and can occur around certain technical solutions or improvements of the standard. This collaboration is between different actors and typically not for the entire standardization work.

The second, more permanent form of collaboration is not as common. Special Interests Groups (SIGs) have been used in IEEE supposedly to help expedite work on standard development. While SIGs may in exceptional circumstances and under strict conditions expedite the standard development work, they can be illegal. We provide an example below of a SIG composed of SDO members that operates with restricted membership (sometimes secretly) in a manner that limits consensus-based standards development activities. Where members of such SIG collectively can and do exercise effective control or influence ("dominance") over the standards-development process, such collusive conduct may well give rise to concerns under Article 101 TFEU.

Looking at our recent experiences, we hereby provide two examples of collaboration that can be considered to fall within the broad category of cooperation described in question 38.

The first is the DensiFi group, organized around the 802.11ax standardization work done by IEEE. This group was formed by a number of companies contributing to the standardization work, including Cisco, Apple, Broadcom, Intel, Qualcomm, Samsung, Huawei, and others. See https://en.wikipedia.org/w/index.php?title=IEEE_802.11ax&oldid=802613027#Illegal_actions_of_DensiFi_SIG; https://mlexmarketinsight.com/news-hub/editors-picks/area-of-expertise/technology-media-telecoms/doj-probes-role-of-special-interest-group-in-new-wifi-standard

DensiFi members made up a majority of the IEEE members involved in developing the aforementioned standard. The presence and activities of this DensiFi group led to a complaint filed with IEEE arguing that DensiFI members were using their majority to exclude the technologies submitted to the standardization effort by companies that were not members of the DensiFi group. IEEE initiated an investigation and found that DensiFI had engaged in dominance with the effect of "excluding viewpoints of non-[DensiFi] participants from 'fair and equitable consideration.'" See also appeal https://ieee802.org/appeal_decisions/Ericsson_Smith_InterDigital_17_0106/Appeal_Brief_and_Appendix_SASB_Appeal_(2017.01.05).pdf. Ericsson is of the view that the covert work, coupled with an agreement to not vote individually, but as a group, was not only contrary to the IEEE governance rules, but also involved a Section 1 Sherman Act / Article 101 TFEU violation.

The second example is the O-RAN Alliance. Although the O-RAN Alliance is not an SDO/SSO, this collaborative organization falls within the broad scope of activities relevant for this consultation (as explained in the introduction of the consultation). The membership to O-RAN Alliance is limited to 'mobile operators' (https://www.o-ran.org/membership-info), and only members can be elected in the Board of Directors of the alliance. The Board of Directors leads the alliances, decides on new projects, releases of specifications, etc…

Contributions can be submitted by non-members, and contributors can be part of the technical discussions but ultimately it is the Board of Directors that decides.

39 Please explain (i) whether the number of participants was restricted for the incipient phases of the development or throughout the process, (ii) whether the interests of other stakeholders that were not a part

of such restricted group were represented in the development of the standard during the entire process (and if so, how).

> The secret DensiFi group was supposedly formed to help expedite work on the 802.11ax standard, which was aimed at improving WiFi connectivity in dense metropolitan areas. When exposed, the membership of the group amounted to 18 members, who admitted being members. DensiFi was secret and closed to new members. Five of DensiFi's identified members, Broadcom, Qualcomm, MediaTek, Marvell, and Intel, had a combined market share over 93 percent in the integrated circuit market. See https://ieee802.org /appeal_decisions/Ericsson_Smith_InterDigital_17_0106/Appeal_Brief_and_Appendix_SASB_Appeal_ (2017.01.05).pdf
>
> To our knowledge, the membership of the O-RAN Alliance is not limited to a certain maximum number of members. The limitation of the membership is qualitative in nature, not quantitative. As indicated before, the technical discussions can be attended by members and contributors. However, the decision on projects and technical releases are made by the Board (which is composed by members only).

40 Based on your experience, which **impact did such restricted participation have** on the following elements:

	Very negative	Negative	Neutral	Positive	Very positive	No opinion
Access to the standard	○	○	◉	○	○	○
Any costs/burden for your organisation	○	○	◉	○	○	○
Benefits for your organisation	○	◉	○	○	○	○
The standard development /setting process in general	○	◉	○	○	○	○
Your respective industry /market (s)	○	◉	○	○	○	○
Other	○	○	○	○	○	◉

41 Please explain your choices. If you chose "Other", explain which elements these would be.

As indicated above, occasional collaboration on technology solutions is normal in any SDO/SSO and can occur around certain technical solutions or improvements of the standard. The collaboration is between different actors and typically not for the entire standardization work. Such collaboration is procompetitive as it can help create good technical solutions with contributions of multiple companies or help create consensus around a certain technical solution.

Especially more permanent collaborations between the same companies for a longer duration of the standardization effort can create some risks. Indeed, such permanent collaboration can lead to (de facto) exclusion from the standardization process of certain technical solutions. This can prevent such solutions from competing with others with a view to being integrated into the standard. Such exclusion may lead to missed opportunities to contribute and may thus result in unsuccessful R&D investments and efforts.

If such exclusion is organized so that it becomes a long term and structural element, then it may have negative impact on the standardization efforts as it can (definitively) preclude certain players from competing in the standard creation and thus effectively reduce the choice and the competition of solutions to be considered for the creation of the standard.

More fundamentally, it is important that collaboration on technological solutions is and remains open to all parties that can meaningfully contribute to the standard development work. In this respect, Ericsson takes the view that criteria for participating in standards development activities – including in the context of ad-hoc collaboration within SDOs - can–while remaining objective and non-discriminatory–legitimately be based on substantive merits of potential participants that are reasonably related to the development of the standards at issue and note that the Commission itself has already acknowledged that principle, in particular in its Ship Classification decision and the X/Open Group case. However, as mentioned above, transparency and openness remain key principles in this respect.

42 Are you aware of any standard development efforts for which it would not have been possible to adopt the standard in the absence of a limitation on the number of participants?

- ○ Yes
- ◉ No
- ○ No opinion

44 Are you aware of any standard development efforts for which the unrestricted participation policy hampered or delayed the standard development process?

- ○ Yes
- ◉ No
- ○ Not applicable

45 Please explain.

In our experience, most SSO/SDOs have unrestricted participation and do not face problems with standardization efforts. The time required for creation of the standard and thus the evaluation of potential 'delays' during the development cannot be done in the abstract. The complexity of the standardized technology, the contributions of different international players, the need for reliability and resilience of the standard, the need for broad market acceptance, and many other requirements and realities need to be taken into account to evaluate and (if needed) quantify the existence of 'delays'.

Furthermore, the restriction of participation seems at odds with the WTO TBT principle of openness (recognized in REGULATION (EU) No 1025/2012 of the European Parliament and of the Council of 25 October 2012

"2. Openness
Membership of an international standardizing body should be open on a non-discriminatory basis to relevant bodies of at least all WTO Members. This would include openness without discrimination with respect to the participation at the policy development level and at every stage of standards development, (WTO | Principles for the Development of International Standards, Guides and Recommendations)"

As indicated above in our answer to question 31, delays in the development of standards have been caused by the introduction within the SDO context of discussions on the commercial terms for the licensing of IPR in standardized technology.

In this regard, we have witnessed in recent years a growing trend whereby companies join SSO/SDOs with the sole intent to modify the IPR Policy of such SSO/SDOs, in an attempt to reduce the value of standard essential patents (and thus their royalty burden). As the number of contributors to a standard is typically (significantly) lower than the number of implementers/users of the standardized technology, such a trend could jeopardize the balance that the IPR Policy of SSO/SDOs tries to reach by seeking both a broad dissemination of the standard and an adequate compensation to incentivize the best contributions to the standard.

46 Are you aware of SSOs which ensure that stakeholders are kept informed and consulted on the work in progress without at the same time allowing for unrestricited participation in the standardisation efforts?

- ○ Yes
- ◉ No
- ○ Not applicable

47 Please explain.

Joint negotiation of licenses by potential licensees

48 Have you negotiated the licensing of standards essential patents (SEPs) with potential licensees that were part of a group (for example a licensing negotiation group)?

- ◉ Yes, as owner of a SEP
- ○ Yes, as potential licensee of a SEP
- ○ Yes, on behalf of an owner of a SEP

- ○ Yes, on behalf of a potential licensee of a SEP
- ○ No
- ○ No opinion/not applicable

49 In your experience with joint negotiations of licenses for SEPs by potential licensees (for instance in the form of a licensing negotiation group), were the potential licensees competitors or potential competitors to each other?

- ◉ Yes
- ○ Yes, but only some of them
- ○ No
- ○ I do not know
- ○ No experience

50 Please explain in which markets they were (potential) competitors.

Several years ago, the Indian Cellular Association represented several Indian handset makers in a negotiation over licenses to Ericsson's SEPs. The markets where they were competitors included the Indian handset market.

51 Was there a separate entity (for example a licensing negotiation group in the form of a joint venture, a company in which the potential licensees hold shares, an independent third party entrusted to pursue the negotiations, a contractual arrangement, or other looser forms of cooperation) in charge of the negotiation for the potential licensees?

- ◉ Yes
- ○ No
- ○ Not applicable

52 Please explain. In particular, describe the nature and degree of integration between the potential licensees and, if applicable, the features of the separate entity.

The Indian Cellular Association represented the Indian handset makers. It came to Ericsson's attention that the Indian handset makers were discussing, among other things, not to take individual licenses from Ericsson. The incentives were clearly one-sided, and the potential effects of the collaboration were to coordinate hold-out among licensees. Ericsson ultimately did not pursue negotiations with the Indian Cellular Association.

53 Which aspects of the licensing were negotiated jointly with the group and which ones separately?

	Jointly	Separately	Not applicable
Royalty rate/fee	○	○	◉
Aggregate royalty for the whole stack of SEPs and apportionment principle(s)	○	○	◉
Certain element(s) of the royalty rate/fee	○	○	◉

Licensed IP	○	○	◉
Scope of the licence (or product scope)	○	○	◉
Geographic scope of the licence	○	○	◉
Essentiality checks for the SEPs	○	○	◉
Other	○	○	◉

54 Please explain your reply. In particular, if you chose 'other', please specify which aspects were negotiated jointly and which ones were negotiated separately.

As previously indicated, Ericsson ultimately did not pursue negotiations with the Indian Cellular Association. The incentives were clearly one-sided, and the potential effects of the collaboration were to coordinate hold-out among licensees.

As further set out below, Ericsson is skeptical that LNGs may bring about any meaningful tangible efficiencies. In fact, LNGs are more likely to serve as collusive devices that may be used to delay and complicate licensing discussions and frustrate the Huawei/ ZTE licensing framework. The incentives of LNGs are clearly one-sided. Those incentives will seek to cap royalty rates at artificially low numbers in hopes of presenting those numbers as "benchmarks" and/or encourage licensees to engage in group hold-out, as happened with the Indian Cellular Association.

55 Based on your experience or knowledge, which of the following elements should play a role in qualifying joint licensing negotiations by potential licensees of standard essential patents either as a restriction of competition by object or as a restriction of competition by effect (several choices are possible)?

	Relevant for qualification as **by object** restriction	**Not relevant** for qualification as **by object** restriction	**Relevant** for qualification as restriction **by effect**	**Not relevant** for qualification as restriction **by effect**	No experience /no opinion
Potential licensees are competing downstream	☑	☐	☑	☐	☐
Degree of integration on the potential licensee side (e.g. separate licensing negotiation group)	☑	☐	☑	☐	☐
Aggregated share of the potential licensees in total demand in the licensing market	☑	☐	☑	☐	☐
Degree of concentration of licensors in the licensing market	☐	☐	☑	☐	☐
Aggregated market share of the potential licensees in the (downstream) selling markets	☑	☐	☑	☐	☐
The licensee cooperation is secret towards licensors	☑	☐	☑	☐	☐
Other	☑	☐	☑	☐	☐

56 Please explain your choices for the elements that would play a role in qualifying such agreements as a restriction of competition by object or by effect.

In contrast to conventional joint purchasing collaborations among competitors which are generally held to have the potential, in narrowly defined circumstances, to generate efficiencies, particularly in the form of lower prices, LNGs in the SEP context are unlikely to bring about any meaningful efficiencies. The principal reason is that the FRAND framework already ensures that SEP licenses will be made available in line with the relevant IP policy of the SDO at issue on non-discriminatory terms. Since efficiencies are a priori absent and because LNGs can give rise to collusive behavior, for example in the form of collective boycotts, and may frustrate the Huawei / ZTE negotiation framework, it is more likely that LNGs may be set up for anti-competitive reasons. This presumption warrants an analytical framework that treats LNGs with suspicion. Thus, rather than taking a neutral approach that concentrates on the effects of the collaboration – and that may provide for a pseudo safe harbor for collaboration among smaller users of standard essential technology, we believe that a (nuanced) "by object" analysis is more appropriate.

The fact that LNG members may compete downstream and/or have a large market share and/or represent a large proportion of demand and/or operate in secret, heightens the competition law risks. In contrast, whether the licensors' market is concentrated, does not alter the analysis; licenses from SEP holders are complementary products and, whether there are many or few, they are readily available and collaboration among users of the technology is not likely to bring any efficiencies.

57 Based on your experience or knowledge, what would be **potential pro-competitive benefits** of agreements between potential licensees of standards essential patents (SEPs) on the following elements (several options are possible)?

	No pro-competitive **benefits**	**Insignificant** pro-competitive **benefits**	**Some** pro-competitive **benefits**	**Significant** pro-competitive **benefits**	No experience /no opinion
Prices for consumers	☑	☐	☐	☐	☐
Royalty fees for SEPs owners	☑	☐	☐	☐	☐
Royalty fees for the licensees party to the licensing group	☑	☐	☐	☐	☐
Royalty fees for licensees not party to the licensing group	☑	☐	☐	☐	☐
Choice/quality of products for consumers	☑	☐	☐	☐	☐
Choice/quality for SEPs owners	☑	☐	☐	☐	☐
Choice/quality for licensees, party to the licensing group	☑	☐	☐	☐	☐
Choice/quality for licensees, not party to the licensing group	☑	☐	☐	☐	☐
Innovation for consumers	☑	☐	☐	☐	☐
Innovation for SEPs owners	☑	☐	☐	☐	☐
Innovation for licensees, party to the licensing group	☑	☐	☐	☐	☐
Innovation for licensees, not party to the licensing group	☑	☐	☐	☐	☐
Other	☑	☐	☐	☐	☐

58 Based on your experience or knowledge, what would be potential **anti-competitive effects** of agreements between potential licensees of standards essential patents (SEPs) on the following elements (several options are possible)?

	No anti-competitive **effects**	**Insignificant** anti-competitive **effects**	**Some** anti-competitive **effects**	**Significant** anti-competitive **effects**	No experience /no opinion
Prices for consumers	☐	☐	☐	☑	☐
Royalty fees for SEPs owners	☐	☐	☐	☑	☐
Royalty fees for the licensees party to the licensing group	☐	☐	☐	☐	☑
Royalty fees for licensees not party to the licensing group	☐	☐	☐	☑	☐
Choice/quality of products for consumers	☐	☐	☐	☐	☑
Choice/quality for SEPs owners	☐	☐	☐	☐	☑
Choice/quality for licensees, party to the licensing group	☐	☐	☐	☐	☑
Choice/quality for licensees, not party to the licensing group	☐	☐	☑	☐	☐
Innovation for consumers	☐	☐	☐	☐	☑
Innovation for SEPs owners	☐	☐	☑	☐	☐
Innovation for licensees, party to the licensing group	☐	☐	☐	☐	☑
Innovation for licensees, not party to the licensing group	☐	☐	☑	☐	☐
Other	☐	☐	☐	☐	☐

59 Please explain your choices for both the **pro-competitive benefits** and the **anti-competitive effects**. If you chose "other" please explain which elements you mean.

As explained above, Ericsson believes that the case for LNGs generating any meaningful efficiencies, is small, if any. The FRAND commitment already makes SEPs available to industry participants on fair, reasonable, and non-discriminatory terms.

In contrast, the potential concerns related to LNGs are formidable, in particular:

- LNGs invite collective hold-out and other collective boycott-related behavior;

- LNGs make it potentially impossible for courts to identify individual implementers' willingness, because implementers can hide behind their LNG; LNGs may take extreme positions and individual members would not be accountable;

- The scope for LNGs to negotiate more favorable terms from SEP owners is at most limited, because SEP licenses are already available on FRAND terms;

- If LNGs would nonetheless be able to negotiate significantly more favorable terms, such "better" terms may limit the incentives on the side of SEP owners to innovate. These concerns are particularly acute where the LNG members represent a large percentage of demand. In that case, the concerns associated with joint purchasing – and the limitation to a combined market share of 15% under paragraph 208 of the current Horizontal Guidelines-would apply mutatis mutandis;

- LNGs are likely to include different types of implementers, active at different levels. The obligation to deal with each of the members of an LNG may create inefficiencies over licensing parties active at a particular level in the production chain;

- LNGs are susceptible to the majority view, or the view of one or a small number of prominent members of the LNG, on the proper licensing modalities. Not only will this potentially limit the negotiation freedom of (smaller) LNG members and complicate licensing discussions, but potentially also lead to suboptimal licensing outcomes.

FRAND

60 Do you have experience with SSOs that give guidance on the FRAND concept?

- (●) Yes
- ( ) No
- ( ) Not applicable

61 Please provide the name of the SSOs and explain how you assess this guidance.

In our experience, many SSO/SDOs provide guidance in relation to 'the FRAND concept'.

The FRAND commitment is contractual in nature and thus must be interpreted in light of specific SDO rules and IPR policies. It is not a universal concept. The interpretation should be based on the choice of law specified in the FRAND commitment. The choice of law can provide rules of interpretation, such as whether to refer only to the language used in the relevant contractual clauses of the contract or whether also to take

into account the internal and external context such as the SDO documents, the objectives of the IPR policy, the ecosystem and industry practices, etc…

This approach has been confirmed in recent case law in Europe, for example in the UK by the UK Supreme Court in Unwired Planet vs Huawei and Conversant vs ZTE ([2020] UKSC 37), in the Netherlands by the Court of Appeal of The Hague in its decision involving "the Koninklijke Philips N.V. v Asustek Computers INC." (7 May 2019 - Case No. 200.221.250/01), in Germany by the Landgericht of Munich in the case involving 'Conversant v Daimler' (30 October 2020 - Case No. 21 O 11384/19).

Further references that highlight the importance of the contractual nature of the FRAND commitment can be found in different papers. In previous consultations we have brought the award-winning paper 'FRAND Licensing Levels Under EU Law', by Prof. Jean-Sébastien Borghetti, Dr. Igor Nikolic, Prof. Nicolas Petit (February 2020) to the attention of the European Commission. Another example that illustrates the contractual nature of the FRAND commitment can be found in an overview provided of SDO IPR Policies' rules on the licensing of the component level in a given value chain. (A review of SDO IPR Policies; do they require component level licensing?', Richard Vary, 2021, https://www.twobirds.com/en/news/articles/2021/global/a-review-of-sdo-ipr-policies-do-they-require-component-level-licensing)

As there are many SSO/SDOs with different activities, governance, member structure, etc… it should not come as a surprise that the guidance provided by the SDO on the FRAND concept may be different.

As stated before in our reply of 12 February 2020 to the "Public consultation on EU competition rules on horizontal agreements between companies – evaluation" SDOs' IP policies typically do not mandate specific licensing modalities or rates; instead, they generally provide that licenses for standard essential patents should be granted on FRAND terms and specifically provide that licensing terms of standard essential patents are to be negotiated on an individual basis between the IP owner and the prospective licensee.

The recent change of the IEEE IPR Policy (2015) introduced more detailed guidance directly impacting SEP license negotiations and SEP valuation methodologies. The discussions that followed this IPR Policy change, including within the actual technical working groups (as cited above in our answers to question 31 of the consultation) are clear evidence of the negative impact such detailed commercial guidance can have. An SDO's main objectives are 1. to create the best possible technology by attracting contributions that are the result of leading-edge R&D investments; 2. to ensure a broad dissemination of the standardized technology that it created via the implementation in successful products and services. The only way to achieve both these objectives is to have a balanced approach to the interests of both contributors and implementers, and allow for the necessary flexibility that enables the best possible 'no-one-size-fits-all' approach.

It would not be appropriate to lay down, in the Horizontal Guidelines or via other regulatory intervention, rules on the specific methodologies that should be relied upon to conduct this assessment. The task to evaluate FRAND should in principle be left to the competent courts and tribunals in the event of a dispute. This would also be in line with the Commission's own observations that "there is not one-size-fit-all solutions to what FRAND is: what can be considered fair and reasonable differs from sector to sector and over time" and that "the parties are best placed to arrive at a common understanding of what are fair licensing conditions and fair rates" and that they are "in the best position to determine the FRAND terms most appropriate to their specific situation." (Communication from the Commission on Setting out the EU approach to Standard Essential Patents COM(2017), page 6) Moreover, Ericsson is of the view that SDOs have discretion under the European competition rules how they wish to structure and define their respective IP policies.

62 Which valuation methods have you used in your licensing negotiations for proposing a FRAND license? How would you assess these methods?

As a general matter, Ericsson believes that the Horizontal Guidelines should refrain from providing any guidance on the methodologies to be utilized in the context of FRAND rates and, instead leave this to be assessed by the parties and competent courts and tribunals in light of the FRAND contractual commitments made.

There is a general understanding that the value of a FRAND license must reflect the economic value that the patented technology adds to the end product. This can be determined in different ways.

Based on our experience with licensing SEPs, both as patent owner (licensor) and as implementer of the standard (licensee), the comparable licensing valuation method is the one most often used. This method offers the benefit that it is based on and represents real world commercial deals. These commercial deals are not all identical; FRAND is a range and circumstances are different from one license agreement to another. However, these (different) comparable license agreements are useful and real life datapoints of agreements between parties on the value of a license in accordance with FRAND. They are thus relevant to create a benchmark reference point that can be used as guidance for valuation of a license. Indeed, courts have found "that the comparable licenses provide the best market-based evidence of the value of Ericsson's SEPs and that Ericsson's reliance on comparable licenses is a reliable method of establishing fair and reasonable royalty rates that is consistent with its FRAND commitment." HTC v Ericsson, 407 F. Supp. 3d 631 (EDTX 2019) (affirmed on appeal); see also Unwired Planet v Huawei, Approved Judgment, 374, [2017] EWHC 2988 (Pat) (United Kingdom High Court of Justice Nov. 30, 2017) (affirmed on appeal).

Another valuation method that is sometimes used as a cross-check for a comparable licensing valuation method, consists in checking the overall royalty for all SEP technology in a given standard based on the royalty for an individual SEP portfolio. See Unwired Planet v Huawei, Approved Judgment, 374, [2017] EWHC 2988 (Pat) (United Kingdom High Court of Justice Nov. 30, 2017) (affirmed on appeal). This approach checks whether the derived overall royalty for all the SEP technology would exceed a reasonable aggregate royalty.

This cross-check, sometimes referred to as a "top-down" approach, is not straightforward. It requires, at a minimum: 1. an equally thorough assessment of the relative value of the individual SEP portfolio over the aggregate SEPs in industry; 2. a clear understanding of the minimum statistical requirement for assessing the aggregate SEPs in industry, and the corresponding limitations, if statistical sampling is used; 3. a sound and thorough understanding of what a reasonable/unreasonable aggregate royalty would be to achieve the objectives of the IPR policy. With regard to the aggregate royalty, reference has been made to ex ante statements by companies who participate in the marketplace as both patent holders and implementers, to the incremental value of SEP technology to an end product (e.g., the value of 4G over 3G), and to other market-based benchmarks. If a company has made an ex ante disclosure of individual licensing terms, this, too, can act as a benchmark against which to compare the reasonableness of a royalty demand.

In our experience, the top-down analysis is used primarily where there is an absence of comparable licenses, or as a cross-check for a comparable licensing valuation method.

Finally, some parties continue to promote a theory that a reasonable royalty should reflect the profit associated with what they argue is the 'smallest saleable patent practicing unit' (SSPPU), and not the value of the patented technology to the end product. This is odd as we are not aware of any recent authoritative court decision in Europe, US, India or China supporting this SSPPU theory, on the contrary courts confronted with the arguments defending a SSPPU approach have often provided a clear rejection of the general application of this theory in the cases brought before them. See, e.g., HTC v Ericsson, 407 F. Supp. 3d 631 (EDTX 2019) (affirmed on appeal). The theory does not align with market realities—whether incentives to innovate or disseminate SEP technologies—and does not reflect real-world licensing practices.

63 Should SSOs facilitate their members to agree on a maximum total royalty rate to get access to all SEPs? Please elaborate.

In our opinion, SDO/SSOs should not prevent or prohibit the publication of ex ante declarations by their members. As a leading contributor to cellular standardization, we have, prior to the start of the 5G NR Release 15 standardization work, provided a (voluntary) ex ante disclosure in relation to that standard for multimode mobile handsets fully conforming with the standard.

This ex ante disclosure was published on the ETSI website and the full text can be found there https://www.ericsson.com/assets/local/patents/doc/frand-licensing-terms-for-5g-nr-in-3gpp-release-15.pdf

We were able to make this ex-ante disclosure after having extensive experience in;

i. contributing to the development of cellular standards. Ericsson has been active since the early 1980's in cellular standardization work and has been (and continues to be) one of the leading contributors;

ii. developing, maintaining and constantly improving a high-quality patent portfolio currently composed of more than 57.000 patents, including many standard essential patents;

iii. licensing mobile handsets conforming to the 2G, 3G and 4G cellular standards.

This experience was key to enable us to anticipate a reasonable royalty that would reflect the value that our SEP technology would confer on mobile handsets conforming to the future standard.

An ex-ante declaration of a specific royalty for new (often undefined) products and services is very complex as the valuation of the standardized technology cannot be made in abstract; without end use application, it is extremely difficult to value technology. Therefore, the past experiences that we gained in the mobile handset space, allowed us to develop a specific ex ante disclosure of a royalty rate for multimode mobile handsets fully conforming to the 5G NR Release 15, i.e. the first release of the 5G standard. With regard to other 5G end user equipment, our disclosure identified that we intended to apply the FRAND principles underlying our reference framework, without providing specific royalty rates.

The effective use of ex ante disclosures is thus limited by foundational practical considerations. In order to make an ex-ante declaration that will be accepted by the market, one needs experience and a mature market where value can be sufficiently anticipated. This is particularly problematic for many of the new IoT ideas that are being created but where there is no real market experience of pricing or value. It is not possible to define "ex ante" maximum royalty caps for products/services categories that are not known yet. Making wrong predictions could jeopardize investment in standardization for, or deployment of, these new products/services categories.

Telecom standardization is a continuously evolving process where important ongoing R&D is carried out in parallel with the standardization process. The contribution of this technology to the standard is subject to competition by others who are involved in the development of the standards. The proportion of contributions may not be exactly known upfront.

Further, in the cellular context, there has been fast adoption of the standard in the market (e.g. 5G smartphones are already on the market while the network is still being deployed depending on where you are in the world). This fast adoption can be jeopardized if discussions on licensing need to materialize before the deployment/implementation of the standard can start. Again, as indicated many times in this consultation, this is another reason why SSO/SDO's focus is on the access to the standardized technology,

not on the precise commercial terms of such access.

We do not believe that SSO/SDOs should 'facilitate their members to agree on a maximum total royalty rate'. Our view is, inter alia, informed by the telecoms industry's experience with the NGMN IPR initiative launched in 2007. While this initiative was not an "agreement" among all members on a maximum total royalty rate, it shows how difficult it would be to arrive at one based on consensus. This problem is exacerbated as the number of licensors and licensees grows over time.

Finally, SSO/SDOs have different type of governance structures (cf. the aforementioned JRC study 'Making the Rules'). This may have an important impact on the possibility of the SSO/SDO to even consider facilitating these types of discussions.

Other comments

64 Please feel free to upload a concise document, such as a position paper, explaining your views in more detail or including additional information and data. The document is an optional complement and serves as additional background reading to better understand your position.

106b3b62-acb6-4976-9515-5c48f6145bcf/Ericsson_-_HBER_Consultation_-_targeted_standardisation_questionnaire_-_Annex.doc

65 Do you have any further comments on this initiative on aspects not covered by the previous questions?

We want to refer to the previous submissions we filed on the 12th of February 2020 and 5th of July 2021 in relation to the review of the Horizontal Guidelines, and which touched upon other aspects of the guidelines.

66 Please indicate whether the Commission services may contact you for further details on the information submitted, if required.

- (●) Yes
- ( ) No

THANK YOU FOR YOUR COOPERATION

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