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Regards: Intel Comments to EU rules on Horizontal Cooperation Agreements

Intel Corporation commends the effort of the European Commission to provide greater insight and understanding as to how to assess horizontal co-operation agreements under Article 101 of the Treaty on the Functioning of the European Union **(TFEU)**. We would like to thank the European Commission for the opportunity to submit our comments and suggestions. Intel has focused on the Commission's draft "Guidelines on the Applicability of Article 101 of the TFEU to Horizontal Co-Operation Agreements" (the "draft Guidelines") as well as the Commission's draft "Regulation on the application of Article 101(3) of the TFEU to categories of research and development agreements" (the "draft Regulation").

Intel is a world leader in computing innovation. The company designs and builds the essential technologies that serve as the foundation for the world's computing devices. As an innovator and manufacturer of highly technical products for the global market in the Information Technology and Communications Sector, Intel has a great interest in supporting and using global standards and spends significant amounts of time, effort and funds on R&D projects annually.

We understand and support the need to carefully consider competition factors when working on standards, industry specifications, R&D work and other horizontal cooperation. The proposed Guidelines and draft block exemption Regulations will be of considerable help in these areas. However, we have concerns in particular regarding the standardisation section in the draft Guidelines. It contains provisions that may be interpreted in a manner that could actually hinder competition and the use and dissemination of innovation in Europe and globally. There may be serious unintended consequences that have a real effect on the practical realities of standards setting.

We propose the following comments and suggestions for the Commission's consideration.

Comments to Chapter 7 of the draft Guidelines – Standardisation Agreements

1. Need for Clarification on Low Risk Practices

The draft Guidelines make several references to a number of conditions (openness, transparency, mandatory disclosure of essential IP, compulsory FRAND commitment, etc.) that need to be met by standardisation agreements in order to enjoy the benefit of a "Safe Harbor" from claims under Article 101 of the TFEU. Identifying potential safe harbor conditions is helpful and appreciated. However, we notice that the Guidelines appear to have a prominent focus on Article 102 issues whereas the main focus should be on providing guidance relating to cooperation between actual or potential competitors and thus on Article 101 issues. In particular, the conditions to be met in order to fall outside the scope of Article 101(1) (at ¶ 276 et seq.) appear to be prompted by the desire at ¶275 to minimize the potential for abuses of a dominant position. We are concerned that this focus on Article 102 issues may have a pernicious effect on well accepted SSO[1] practices. There are many practices that while not fully complying with the conditions stated in the draft Guidelines have shown no anti-competitive effect and/or have provided substantial pro-competitive benefit. As they currently read, the draft Guidelines could be interpreted to condemn or to dissuade the use of historically successful and pro-competitive practices, which do not happen to align exactly with the conditions that warrant a safe harbor. Therefore, we respectfully propose refocusing the Guidelines on Article 101 issues and reduce the required conditions and/or increase the flexibility of the conditions to be met in order to be within the safe harbor, as indicated in more detail in the sections below. In addition, or in the alternative, we suggest to expressly note that standardisation agreements which do not meet the stated conditions for a safe harbour may still fall outside the scope of Article 101(1).

¶276 states that standard-setting agreements that do not benefit from the safe harbor will be individually assessed to determine whether they fall under the Article 101(1) prohibition and in the affirmative whether they may benefit from the Article 101(3) exemption. However, several other paragraphs in the draft Guidelines give the impression that practices that do not comply with the conditions for the safe harbour would be in conflict with Article 101(1) and would be unlikely to be granted the benefit of an exemption under 101(3).

For example the Analysis under ¶316 indicates that SSOs that do not mandate both detailed disclosure and FRAND terms are "likely to give rise to restrictive effects on competition within the meaning of Article 101(1) and are unlikely to meet the criteria of Article 101(3)." Yet, most of the SSOs throughout

[1] SSO stands for "Standards Setting Organization" and is used in this paper when referring to formal standards development organizations that produce standards and consortia or fora that produce industry specifications.

the world have successfully supported tens of thousands of standards and industry specifications each year based on policies that seek confirmation of licensing assurances on RAND or RF-RAND[2] terms but that: a) may not require identification of individual patents except under special circumstances; or b) simply encourage disclosure during technical development. Very few (if any) SSOs unequivocally "impose an obligation on its members to commit to license the IPR included in a standard."[3] Such policies typically include an important safeguard for members to provide the SSO with timely notification if they find that they are unwilling to grant licenses to technology submitted by other members[4]. As a result of the current wording in ¶316, SSOs may feel compelled to meet the strict conditions set out in the draft Guidelines despite having a more refined and nuanced policy. Otherwise, SSO's normal and pro-competitive policies would be at risk of being found illegal under the proposed rules. On this basis, we suggest that ¶316 be eliminated or redrafted. The Commission should also make clear that the conditions required for the safe harbor are not required for an exemption under 101(3) as otherwise the 101(3) exemption process becomes meaningless. Further, in addition to our suggestion above to revisit the safe harbor conditions, or at the very least as an alternative to that suggestion, it would be helpful if the Guidelines (a) make clear that no presumption of illegality would arise for those practices/agreements that fall short of the safe harbor, (b) generally recognize the potential for positive pro-competitive benefit from many existing and common practices that may not meet the safe harbour conditions; and (c) provide some guidance as the circumstances under which a standardization agreement which falls under 101(1) will benefit from 101(3).

[2] Such SSOs that may not qualify under a straight interpretation of the draft Guidelines include but are not limited to global standards setting organizations such as DVB, Ecma International , ETSI, CEN, CENELEC, ISO, ITU, IEC, ATIS, ASME, ASTM, CEA, EIA, IEEE, ISA, JEDEC, NECA, NEMA, RIA, SIA, SAE, TIA, PCI SIG, PICMG, IBTA, IETF, DMTF, OASIS, UPnP Forum, W3C and literally hundreds of others.

[3] Even SSOs with IPR policies that include a presumptive commitment to license, typically include a way to exclude patents from the commitment and/or to withdraw from the organization.

[4] Many SSOs seek a licensing commitment from members making technical contributions but they give non-contributing members the option to notify the SSO if they will refuse to license. This prevents a competitor from making a technical contribution to secure a license to another member's key technology. If the SSO IPR policy is properly constructed, the notification of a refusal to license will be timely and trigger a review of the contribution. This could be especially important to small innovative companies with limited intellectual property rights who need to protect their key competitive advantage. It also can be very important to companies of any size in the competitive environment of standards setting.

2. How SSOs function and what rules are already in place that may address some of the Commission's Concerns

In a number of instances the draft Guidelines focus on the licensing of patents associated with standards. However, patents related to specific standards are only a portion of the larger picture where critical licensing negotiations take place. The following sections will lay out how the standards work fits in to the bigger picture and where the Guidelines can especially be of help.

2.1 How Patent Licensing and Royalties Work:

A product may infringe a patent as a result of: a) design decisions that have nothing to do with standards, or b) design requirements that are necessary for compliance with multiple standards or industry specifications. Since the patent holder has exclusive rights over the practice of their patented inventions, an entity making, using or selling products may seek to negotiate a license[5] that provides the licensee the rights necessary to practice all of the licensor's pending and issued patent claims that may be infringed by the licensee's products. Because of this product focus, negotiations for individual patents or a subset of the potentially infringed patent claims (such as essential patent claims related to a single standard) rarely occur[6] except in unique circumstances or when adding to a previously negotiated license.

Establishing patent value is a complicated and fact intensive inquiry, requiring a careful consideration of numerous factors related to the value of the intellectual property. We suggest consideration be given to utilizing widely accepted valuation methodologies in the relevant industries (where available). The market value of a particular patent claim should be its value in relation to the next best non-infringing alternative. The basis of the value should be the difference between using and not using the patented invention in that particular situation. When considering patents that are essential to standards, we believe that the value should be the value when the standard is created. Unfortunately, there is no bright line test or formulas to apply in helping to determine patent value.

Each party's approach to licensing negotiations will depend on their own business objectives and the business objectives of the other party. When engaging in negotiations the parties may consider many factors unique to the negotiating parties and the unique circumstances of the negotiation such as: the

[5] In practice, the decision of when to initiate a licensing negotiation will depend on many different factors and may be deferred.

[6] In the absence of a broader negotiation in support of product(s), negotiating a single license for essential patent claims in one standard risks a serious disadvantage in future licensing negotiations when the licensee will have less to offer, face higher switching costs and product delivery deadline pressure.

quantity, quality (potential validity) and relevance of the potentially infringed patent claims to the product(s); the quantity of licenses requested and potential changes to the quantity requested over time (such as volume or step pricing); any negotiated limitations (such as a licensee's request for a limited license); the potential effect of pre-existing licenses (patent pools and cross licenses) and the use of already licensed materials or components; the patent portfolio position of the licensee as regards the licensor's products and the licensor's desire for reciprocal/cross licenses; the potential future effects of patent applications by both parties; the potential for various business arrangements between licensor and licensee (such as sales agreements, joint research projects, etc.); and other factors. The parties could also choose not to engage in licensing negotiations at the current time and may never choose to engage in a formal licensing negotiation.

This background on licensing negotiations helps to illustrate: the wide variety of business conditions potentially available; the wide variety of potential ways to compensate the patent holder (other than royalty payments); the importance and defensive value of the licensee's own patents; and the difficulties in determining essentiality and patent value.

2.2 Why SSOs seek RAND/FRAND[7] Licensing Assurances:

Since complying with the requirements of a standard or industry specification may require infringing certain patent claims[8] (Essential Patent Claims), SSOs typically seek an assurance that the holder of potentially essential patent claims will offer to negotiate patent licenses to those Essential Patent Claims on reasonable and non-discriminatory terms. With properly constructed and updated IPR policies, many SSOs find that they can simply rely on the RAND/FRAND assurance to support adoption of their standards and industry specifications in their markets. This in turn allows the licensor and licensee the maximum flexibility to negotiate a mutually acceptable license in support of products that meet each of their unique business needs (including the rights necessary to support implementing the standard.) The parties are free to negotiate patent specific licenses, product specific licenses, cross licenses, covenants not to sue, or other mutually agreeable terms and conditions.

[7] The terms RAND stands for "Reasonable and Non-Discriminatory" and FRAND for "Fair Reasonable and Non-Discriminatory" are generally considered to be interchangeable. RAND is the term most used in the United States and in the ISO, IEC and ITU environment. FRAND is more widely used by European SSOs.

[8] Patent claims define the scope of protection granted by the patent. In order to comply with the standard or industry specification, the implementer may be required to design their product in a manner that infringes some patent claims but not others. SSOs seek assurances that all necessary licenses are available but do not address licensing of other patent claims that may be infringed by choice but not required by the standard or industry specification.

Some SSOs may further refine what they will require in the way of a RAND assurance in support of their unique business environment. For example some SSOs may require that entities benefiting from a RAND license assurance must also be willing to offer a reciprocal license to their own Essential Patent Claims. Other SSOs may require assurances that licenses of Essential Patent Claims for a specified standard will be available under royalty free and otherwise reasonable and non-discriminatory (RF-RAND) terms. These requirements are typically incorporated in the IPR rules or IPR policy for a particular standard or industry specification. SSOs use such IPR rules as a way to balance the interests of their stakeholders and/or to adjust their procedures for efficiency in their particular standardisation environment. Such requirements may not be acceptable to all constituencies and therefore may be different for different environments

While there are several different themes for IPR rules, the rules for SSOs are constantly evolving and being updated in response to the unique environment for each particular standard or industry specification. It is not unusual to find different IPR rules applying to different versions of a specification[9]. The important point to stress here is that there is no "one-size-fits-all" solution that will work across all markets for all standards or industry specifications.

Properly constructed and updated IPR policies allow the technical standards developers to concentrate their efforts on finding the best technical solutions that support the market for their standard. This is necessary for the efficient and timely development, rapid adoption and extended longevity of a standard that promotes competition. Standards development is like any technical development but driving independent collaborators to come to a consensus on thousands of technical decisions in a timely manner is always challenging. The use of RAND/FRAND assurances with the prudent use of rules to provide relevant and necessary information helps drive successful and timely standards and industry specifications.

2.3 How Identifying Potentially Essential IPR Works

While some potentially essential IPR may be readily identifiable, the evolving content of the draft specification, the complex nature of patents, the evolution of patent applications, and the complex nature of the specification itself make it impractical to identify "all" truly essential IPR until after the standard is set and implemented. Specifications can be very complex and extensive. It is not unusual for relatively simple specifications to be hundreds of pages in length and complex standards (such as telecommunications standards) may be so large as to be impractical to print (in some cases potentially requiring over a pallet of paper).

[9] "Specifications" are documents that describe a standard or industry specification.

To do what is called a "patent search," a skilled individual would theoretically need to thoroughly understand each patent and patent application and then search through the specification for any requirements that could result in an infringement (or conversely thoroughly understand the specification and search through the patents and patent applications). Automated tools can provide some assistance but this is a subjective analysis involving complex ideas and implementations of a potentially massive amount of information. Of course there is some potential to miss some things and to trigger false positive indications on others. A search from scratch may be impractical to accomplish within a reasonable timeframe. Also we should note that the above scenario assumes that the specification is static and unchanging. Specification development is an evolutionary process with the specification constantly changing , adding new functionality and involving many engineering decisions until the specification is finalized.

Therefore, SSOs typically look for reasonable alternative methods for identifying potentially encumbered technology in support of making informed decisions when considering including a particular contribution into a specification. Information does not need to be perfect but any requirements should balance the interests of the relevant stakeholders. Some SSOs simply seek a RAND commitment for any IPR than may become essential. Some SSOs focus on disclosures from the contributors as they are most likely to benefit from the inclusion of encumbered technology. For some, this can mean a simple notification if the contribution is encumbered by IPR and others may require an identification of individual patents and patent applications. Many SSOs request or require disclosure based on the personal knowledge of the persons participating in the specification development. Such SSO policies typically include anti-circumvention provisions. Many SSOs understand the potentially high burden of patent searching and specifically note that patent searching is not required. We suggest that ¶281 of the Guidelines be amended to make clear that patent searching is generally not required.

2.4 How the Ex-Ante Disclosure of Licensing Terms Works

The idea for an ex-ante disclosure of licensing terms is that if standards developers could be made aware of the potential costs (monetary and other licensing conditions) of including proposed technology before it becomes locked into a draft specification, they could make a better informed decision regarding the inclusion of that technology versus a rival technology or foregoing that function altogether. The ex-ante disclosure is intended to provide relevant information for comparison purposes but, as we have stated above, there are other factors to be considered when entering into actual licensing negotiations.

Seeking an ex-ante disclosure from some potential contributors in some situations may be advisable (especially when the standards environment or the history of a particular contributor calls for prudence). However, while this may be helpful for assessing risk in major contributions or providing additional

information when needed, producing and analyzing such detailed information consumes both time and resources. This may be particularly true for non-contributing members, who are not familiar with the contributed technology. For everyone, considerable thought and effort goes into preparing an ex-ante disclosure of licensing terms.

In addition, the information provided to the SSO is complex and members analyzing it may need the help of specialists. Since SSOs must efficiently coordinate between many people with diverse business interests to efficiently select and compile complex highly technical specifications on very short schedules, SSOs need to be careful to get the information they need to make efficient and effective decisions and minimize extraneous information. Whether or not an ex-ante disclosure policy makes sense for a particular standardisation effort will depend on the SSOs unique development environment, the market they serve, and the history and business models of those parties potentially holding Essential Patent Claims.

IPR policies that allow for voluntary ex-ante disclosure of licensing terms can be very helpful. This facilitates efficiency by allowing for the occasional and prudent use of this tool. However, the difficulties in generating the information (especially for the non-contributing party), the special skills and overhead that receiving members would have to apply, and the limited nature of the information, mean that ex-ante disclosure is generally not well suited for regular or mandatory use. Despite these concerns, some SSOs with unique circumstances (VITA[10]) have chosen to experiment with mandatory disclosure by all members. SSOs contemplating using a mandatory rule typically: 1) examine the pros and cons found by other SSOs adopting such rule, and 2) also study the factors specific to their own environment and how the rule would work in such environment.

3.0 Implications

3.1 Implications for Requiring Identification of Patents

¶281 states: "Thus, the IPR policy should require good faith disclosure of those intellectual property rights that might be essential for the implementation of a standard…" Yet as noted in Section 1 above,

[10] VITA has a small membership that has been working on a consistent evolutionary set of specifications for many years. They also reference other standards (that do not have ex-ante disclosure policies). This allows for more predictability in licensing from a small number of patent holders and may allow for mandatory ex-ante disclosure to work for this group. Organizations like the IEEE do extensive work on new standards and have a large constituency. These types of organizations typically do not find mandatory ex-ante practical for themselves but they may formalize a voluntary ex-ante disclosure policy (as the IEEE did).

many historically successful SSOs do not necessarily require the identification of individual patents. In practice, most standards developers are also product oriented companies that implement the standard. As noted in ¶274 such product oriented companies may have a strong incentive for using their IPR defensively. Unless they need to cover an excessive expense to meet disclosure requirements, such companies typically do not need to aggressively pursue royalties related to standards. For this reason, many successful SSOs seek RAND assurances but encourage or make disclosure of individual patents optional.

Further, in Section 2.2 we showed how RAND/FRAND facilitate a wide range of business interests in support of actual licensing negotiations and how properly constructed IPR policies balance the level of diligence (disclosure) needed to develop successful standards in a timely manner.

Disclosure is generally helpful but perfect disclosure is neither necessary nor always practical in standards development. SSOs have adopted aggressive requirements for identifying individual patents when they find it necessary. However, careful consideration is typically given to the risks of: a) driving key innovators away as the costs of participation may be too high or b) driving up royalty costs (possibly where none previously existed) in order to cover the expense of pulling together the disclosure. SSOs have demonstrated responsibility and have satisfactorily evolved their processes and procedures as new challenges emerged. This is evidenced by the tens of thousands of successful standards produced each year, without having to resort to a mandatory disclosure system. It should be enough to require that the SSO take currently successful policies into account when crafting their own IPR policy. In particular, patent disclosure should not necessarily be mandated if the SSO has taken appropriate steps to seek RAND/FRAND or similar assurances.

We suggest that ¶281 of the Guidelines be amended to make clear that patent searching is generally not required. Further, we suggest noting the potential pro-competitive benefits of requiring a good faith disclosure but as previously noted in Section 1 above, make clear that no presumption of illegality would arise for those practices/agreements that (a) encourage but do not require disclosure or that (b) otherwise secure RAND commitments without requiring identification of individual patents.

We also note in Section 2.3 above that while some potentially essential IPR may be readily identifiable, the evolving content, the complex nature of patents, the evolution of patent applications, and the complex nature of the specification itself make it impractical to identify “all” truly essential IPR until after the

standard is set and implemented. The Guidelines should make clear that the mere disclosure of essential patents after a standard has been adopted cannot itself be considered anti-competitive.

3.2 Implications for Irrevocable Commitments to RAND/FRAND

There seems to be an over simplification in the wording of ¶282 that could lead to confusion and misinterpretation. ¶282 states, "The IPR policy should also require that all holders of essential IPR in technology which may be adopted as part of a standard provide an irrevocable commitment in writing to license their IPR to all third parties on fair, reasonable and nondiscriminatory terms ("FRAND commitment")."

Intel makes the following observations:

A. The condition of requiring "all holders of essential IPR…" to provide a commitment is not possible because the SSO's IPR policy can only affect members and entities expressly agreeing to abide by the SSO's IPR policy and cannot extend to any non-member entity that has not expressly agreed to be bound by the policy.

   Despite such practical limitations, SSOs can and do seek binding assurances from non-members suspected of holding potentially essential patents (this is a common practice). However, SSOs cannot guarantee that non-members will provide such assurances. To address this potential problem, many SSOs also have rules that if the SSO has knowledge that a third party actually holds essential patents and will not offer licenses, the SSO must find a different technical solution or withdraw the specification. Such knowledge can come via a notification by a member but SSOs must be prepared to deal with errors and deliberate misleading disclosures regarding non-member IPR. Modern SSO IPR policies include safeguard procedures for handling situations where individuals raise dubious claims about essentiality in an attempt to derail the standardisation process. Most SSOs are very cautious about suspected non-member IPR and leave themselves several options as to how to respond to specific situations.

B. It should be noted that a "commitment in writing" by members of the SSO is normally to "offer to license on RAND/FRAND terms" and not "to license on RAND/FRAND terms." This is because the potential licensor may agree to offer a RAND/FRAND license but there is no corresponding commitment that the potential licensee will agree to accept that RAND/FRAND license or abide by the terms of an executed license (e.g., after execution the licensee may breach

the agreement by refusing to offer a corresponding reciprocal license specified in the license agreement, or breach payment of fees, etc.). If the potential licensee fails to accept a legitimate RAND/FRAND offer or it fails to abide by reasonable and nondiscriminatory terms, the patent holder should be deemed to have fulfilled its promise to offer licenses and should be free to exercise their full statutory rights under the patent law. Dealing with disputes regarding whether the license is truly RAND/FRAND are best left to the courts.

C. Another important point is to establish when and for how long the irrevocable commitment should take effect. As written, ¶282 seems to imply that the commitment is always present. Yet SSOs typically allow some commitments to be deferred in order to implement important procedural safeguards to prevent a competitor from introducing unnecessary technology in order to gain access to another entity's proprietary rights. This is accomplished by allowing a participant to give the SSO notice of a refusal to offer licenses to their patents, which may have been made essential by the contributions of others. Such notice is typically allowed only during the specification drafting phase. This is explained in more detail in our comments in Footnote #4, above. Another safeguard is that irrevocable commitments are typically specific to a particular published version of the standard. Such commitment may not apply to new functionality and future versions without the express written consent of the patent holder (this will depend on the bylaws of the SSO).

D. The reference phrase "to all third parties" in ¶282 may also give rise to confusion as the licensing commitment may be made available to members or parties signing adopters agreements or supplying some other reciprocal commitment. Therefore the benefit only extends to third parties who have agreed to specific terms (e.g., SATA Adopters Agreement, PCI SIG Membership Agreement, etc.). Often there is no real business impediment that would prevent anyone from executing such agreements, so they may be available to all third parties. However, such commitments do not extend to third parties not signing the agreements. Such agreements may provide additional clarity and may be useful in supporting the standards. Many SSOs using these techniques have proven to be highly successful and pro-competitive.

On this basis, we suggest amending ¶282 to read along the following lines:

Prior to the publication of the final specification, the standards setting organization should seek irrevocable commitment(s) in writing (assurances) from holders of potentially essential IPR known to the organization, to offer licenses to their IPR essential to implementing the final publish

specification to all third parties on (at a minimum): fair, reasonable and nondiscriminatory terms ("FRAND commitment").

The Guidelines should also make clear that no presumption of illegality would arise for practices/agreements that may require the licensee to: (a) agree to offer a license on reciprocal or similar terms or (b) to enter into an agreement that is common practice in that industry and is generally available to any third party implementing the standard.

3.3 Implications for Establishing the Value of an Essential Patent Claim

As we noted in Section 2.1 above, we agree with the statements in ¶284 that the value of a patent [claims] essential to a standard should be based on the economic value of the patent [claims] and that actual determination of any patent claim value would require a complex analysis. ¶284 and ¶285 both include summaries of potential analysis criteria but we caution that a real life analysis will be more complex and will need to take several other factors into account. For example, there would be no point in conducting an analysis on an invalid patent. Validity would need to be verified. It would also be necessary to determine if the infringed patent claims were essential for compliance with a standard for which an assurance has been given. Infringed essential patent claims would be subject to the agreed terms of the licensing assurance. A non-essential patent claim would not be bound by such assurances.

The criteria set forth in ¶285 and other similar data driven criteria may be helpful in determining a general assessment of the potential value of a patent to a generic implementation of a standard. However, the final determiner of economic value should be the economic value to the infringing product. The economic value may be different for different products that implement the standard.

In determining whether a license was offered on RAND/FRAND terms, consideration will also need to be given to the unique business relationship between the licensee and licensor. For example, the scope of the license or other mitigating factors may influence the licensing negotiation. Shortcuts or the application of arbitrary values would not reflect the appropriate value of the patented invention to a particular product and would skew the results.

Because of this level of complexity, we suggest that ¶284 and ¶285 be modified to exclude the specific analysis suggestions and to indicate instead that generally speaking disputes over the validity and value of a patented invention is best left to the courts. First the parties should negotiate between themselves and then in case of dispute go to courts, which will use the various methods available to determine whether licensing terms are fair and reasonable considering all relevant circumstances.

3.4 Implications for Transfer and Assignment

The intent of ¶286 makes good sense but certain practical considerations should be taken into account. Where a RAND/FRAND commitment relates to specific identified patents, it is easy to require the assignee to honor the commitment. However, identification of particular patents becomes more difficult when a blanket or universal licensing commitment is given. In this case some SSOs have adopted policies requiring the member licensor to inform the assignee of potential encumbrances. This can be further complicated by subsequent transfers or assignments or by bankruptcy action affecting some or all of the patents, which would be outside of the control of the entity originally making the commitment to the SSO.

We suggest the statement in ¶286 to "take all necessary measures" should be changed to "take reasonable measures."

3.5 Implications for the Ex-Ante Disclosure of Licensing Terms

The sentence at ¶287: "In this regard, it is important that parties involved in the selection of a standard be fully informed not only as to the available technical options and the associated IPR, but also as to the likely cost of that IPR" is slightly misleading. We have shown in Section 2.3 above that ex-ante disclosures are intended to provide comparative cost information for use in selecting from between different technologies. However, ex-ante disclosure of licensing terms does not address the total likely IPR costs.

We also observe that a statement that requires participants to be "fully informed" does not appear to realize the potentially impractical amount of overhead and production cost to both the patent holder and the participants in the SSO. In addition, such statements should be carefully drafted not to be interpreted as foreclosing the possibility of other viable options, such as voluntary ex-ante disclosure.

It would be helpful if ¶287 called attention to these complexities and encouraged SSOs considering the use of these techniques to carefully take into account the experiences of other organizations. It would also be helpful if the Guidelines made perfectly clear that the Commission does not show a preference between ex-ante and other disclosure mechanisms.

4.0 Additional Background and Implications

4.1 How Standards are Initially Created and Implications for Participation

In several instances the draft Guidelines note the importance of bringing together all interested and affected parties in a joint collaboration effort (in particular ¶¶278, 301, 307). This is an important and necessary part of the process before a standard becomes finalized. However, during the early formation stages it is difficult, if not impractical, for a wide group of people/companies with disparate views to develop an initial position. In practice, the initial ideas for any standard start from an individual or group of people with a like minded vision. They then often branch out seeking the input and contributions from other people in the industry.

This is a necessary part of idea creation in a high technology environment and can be pro-competitive especially if/when this initial group offers licensing assurances. In practice, many industry specifications are developed this way and in some cases are introduced to the market by these groups in order to meet narrow market window deadlines. This can be a very pro-competitive environment with all relevant parties participating at some point in the development of the specification.

Another well used technique is to start specification development with a limited number of like minded individuals, get it to a certain level of completeness and then transfer the draft work into a larger formal organization open to all interested participants from all over the world who will then refine and complete the work. Most formal standards development organizations get their initial draft standards this way. Under this model all relevant actors can participate in the formal work of standards development.

To give you an idea of how prevalent and necessary standards are and how much is contributed by groups of like minded people as well as formal SSOs, we refer to the research paper from the Arizona State University Law School titled "How Many Standards in a Laptop? (And Other Empirical Questions)." [11] This research paper estimates that a theoretical laptop computer built in 2009 may be based on upwards of 500 interoperability standards, industry specifications, and proprietary specifications (44% of which were developed by consortia of like minded participants versus 36% by formal or government sanctioned SSOs). If handled properly such groups offer pro-competitive efficiencies in development that are used equally by all relevant actors. Often evidence of this resulting parity can be seen at the end of the process when competitors of all types simultaneously introduce products.

[11] Reference: "How Many Standards in a Laptop? (And Other Empirical Questions)" – draft posted at http://ssrn.com/abstract=1619440

As the draft currently reads (¶¶278, 301, 307) these consortia of liked minded participants, which currently fulfills a very important role in the standard-setting environment, would be deemed to infringe competition rules. We suggest that the draft Guideline should recognize the pro-competitive potential for this necessary and successful form of collaboration between a limited number of players and provide guidance so that the work within these consortia is in line with antitrust rules. Additionally, ¶278 should be clarified to recognize that initial draft specifications are often developed by collaborations of like minded individuals and that the refinement and finalization of a standard by all relevant actors is one way to ensure a pro-competitive outcome and potentially a safe harbor.

4.2 How Standards Deal with Optional Alternatives and Implications for Substitute Technologies

In ¶288 the draft Guidelines states that "The inclusion in a standard of substitute technologies (i.e., technology which is regarded by users/licensees as interchangeable with or substitutable for another technology, by reason of the technologies' characteristics and intended use and which could, in the present context, be adopted in an alternative standard) may limit inter-technology competition." Yet, many of today's standards and industry specification are designed to build on other pre-existing standards. Often, these standards and specifications may be an alternative to another standard, industry specification or possibly even a proprietary solution. A simple example would be standards for web pages and file downloads both run on the same internet infrastructure standard which itself is built on multiple layers of standards. Similarly, a single standard or industry specification may specify alternative or optional (substitute) technologies. This could be pro-competitive by allowing multiple parties to build off the same foundation standard technology.

We suggest that the draft Guideline should recognize the pro-competitive potential for this necessary and successful form of standards construction and provide guidance so that such work on alternative modes can progress in line with antitrust rules.

4.3 How Standards are Tested for Compliance and Implications for Vendors

We are concerned with the fact that ¶305 regards the situation of a single compliance test vendor as inherently negative. Modern interoperability standards and industry specifications are highly complex, to the point that simply building to a specification may be inadequate to ensure interoperability. When compliance tests are needed, SSOs typically use the same inclusive collaboration process used for drafting the specification in order to design compliance testing specifications. In many cases, SSOs can

only practically support a single vendor because of the heavy demands of supplying the vendor with technical information and support. In addition, multiple vendors would require additional support to synchronize tests and integrate new information into test programs. A single vendor also reduces the potential for subtle incompatibilities to go unnoticed.

In addition, ¶305 seems to impose an impractical solution when it would accept a single compliance test vendor situation only if it is "imposed by regulatory provisions." As stated above, most compliance testing today is made necessary by the complexity of the standards and the commercial desire to promote interoperability. Government imposed regulatory provisions are rare and represent only a small subset of needs for compliance testing.

We believe that further thoughts should be given to how a SSO can effectively develop and support a single or limited numbers of compliance test vendors and ¶305 should be modified accordingly.

General Comments to the draft Regulation on R&D

Intel believes that fostering collaborative R&D is critical for stimulating innovation and helping industry convergence on technology solutions. For this reason, Intel generally supports the draft Regulation in this area. However, we believe that certain specific proposed changes may significantly discourage collaborative research and development activities in Europe, by placing added burdens on the collaborators or by delaying the party's ability to timely collaborate. We set out our concerns below.

Article 3 of the draft Regulation proposes to add a new condition for exemption from Article 101(1) TFEU for research and development agreements: "The parties [to research and development agreements] must agree that prior to starting the research and development all the parties will disclose all their existing and pending intellectual property rights in as far as they are relevant for the exploitation of the results by the other parties."

First, it appears not feasible to comply with this condition since, prior to completion of the research and development, let alone prior to starting it, the results that will be forthcoming are by definition unknown. Consequently it is not possible to determine the IPRs that will be relevant for the exploitation of as yet unknown results. Even assuming that such disclosure were possible, the time and resources necessary to make such disclosures would only result in time delays and added expense that would in the end not benefit the collaborators or the collaboration. On the contrary, it would result in less efficient and less than timely collaborations.

Second, putting aside the practical impossibility of the task, it is notable that this IPR disclosure rule is still considerably more onerous than corresponding IPR disclosure rules typically adopted in the context of standards setting. In particular, and taking the IPR disclosure rules of ETSI as a counterpoint, in the draft Regulation there appears to be (i) a strict requirement to disclose rather than the ETSI requirement to use reasonable endeavours to make disclosures, (ii) no indication that the draft Regulation does not require the Parties to conduct patent searches, unlike ETSI's rules, and (iii) a requirement that all "relevant" IPR of a party must be disclosed which is potentially broader than all IPR that might be "essential", as in ETSI's rules. In standards setting, there may be a good reason to disclose essential IPRs – *e.g.*, because it might be desirable, in certain circumstances, to define the standard so as to avoid essential IPR where, for example, no FRAND licensing declaration has been made. However, the block exemption Regulation on R&D already requires that an R&D agreement provides all parties to the agreement with access to conduct further research and to exploit the results. It appears surprising that the IPR disclosure rule should be significantly more onerous than what is required in FRAND standardization settings.

Intel also believes that it is unnecessary to add a new "equal" access requirement or to remove the prior flexibility to allow participants to determine the appropriate fields of commercialization of the results to the extent that the participants were not competing in these fields prior to the collaboration or to the extent that their respective expertise in such fields is what prompted the collaboration between the parties. We need to trust that if the collaboration does not result in the collaborators having access to the results that further their business objectives the collaboration will not take place. We believe that the existing Regulation is more encouraging of innovation in Europe and more conducive to efficient commercialization of the research results by allowing the parties to determine the optimal way to achieve commercialization and to incentivize the participants to take the risks to engage in such commercialization, so long as there is no reduction of competitiveness in the market place.

Conclusions

- Intel welcomes these Guidelines and believes that future refinements will be of considerable help. However, we are concerned that several of the current provisions of the standardisation section may be interpreted in ways that could have serious unintended negative consequences on the practical realities of standards setting. We appreciate the benefit of a "Safe Harbour" but are concerned that a focus of the draft Guidelines on Article 102 issues has prompted the inclusion in the draft of several provisions that could be interpreted to condemn or to dissuade the use of historically successful and pro-competitive practices. We encourage focusing the Guidelines on Article 101 issues and in several places asked for more clarity and increased flexibility for the conditions of a safe harbour. We also asked that the

Guidelines clarify that some well known practices will not be consider anti-competitive. We suggested changes to several provisions to align better with real world standards development practices and we offered details on how common practices work and how various issues are being addressed.

- Intel believes that the adoption of the draft Regulation as presently drafted may significantly discourage collaborative research and development activities in Europe. This is because the parties may fear a possible loss of the benefits of the block exemption for failure to comply with the IPR disclosure condition. It is also because the parties may find it easier not to collaborate rather than having to agree to an unnecessarily onerous, if not impossible, IPR disclosure condition or to commercially unduly burdensome "equal" access to exploit collaboration results, even when specifying the fields for exploitation of results by each collaborator may lead to more efficiency and no restriction on competition.

- We feel that this draft is an excellent start and highlights some excellent issues. We would like to offer our expertise in these complex areas to further help explain actual licensing and development practices and we would like to help further advance these very important Guidelines.