

**Contact details**

To: European Commission, DG Enterprise and Industry
Unit A4 - Industrial Competitiveness Policy for Growth
Avenue d'Auderghem 45, 1040 Bruxelles, Belgium

From: Alessandro Orsi
Hewlett-Packard
Cami de Can Graells, 1-21, 08174,
Sant Cugat del Valles, Barcelona, España
e-mail: alessandro.orsi@hp.com

Transparency Register

99346002337-55

HP RESPONSE TO CONSULTATION ON PATENTS AND STANDARDS

12 February 2015

Hewlett-Packard (HP) is pleased to have the opportunity to provide comments to the European Commission for the purpose of gathering information and views on the interplay between standardization and intellectual property rights such as patents.

Description of the HP Group structure:

Hewlett-Packard Company (HP) is a company incorporated and existing under the law of Delaware, USA with its registered seat at 3000 Hanover Street, 94304-1185 Palo Alto, CA, USA. It is the ultimate parent company of multiple subsidiaries active mainly in provision of products, technologies, software, solutions, and services to individual customers and businesses, including the public and education sector in more than 170 countries in the world (HP Group).

HP is the ultimate parent company of the HP Group. HP is a publicly owned company with common shares traded on the New York Stock Exchange under the ticker symbol HPQ. For the overview of its largest shareholders, please see:

<http://h30261.www3.hp.com/phoenix.zhtml?c=71087&p=irol-ownershipHolders>

Description of HP's activities:

Hewlett-Packard Company (HP) was formed in 1947 under the laws of the State of California, USA, as the successor to a partnership founded in 1939 by William R Hewlett and David Packard. Since May 1998, HP has been incorporated in the State of Delaware, USA. The Commission will be familiar with HP following notifications to the Commission in cases such as HP/Compaq (Case No. COMP/M.2609), HP/Triaton (Case No. COMP/M.3398), HP/Synstar (Case No. COMP/M.3555), HP/Mercury (Case No. COMP/M.4350), HP/EDS (Case No. COMP/M.5197) and HP/3Com (Case No. COMP/M.5732).

HP is a technology solutions provider that operates in more than 170 countries around the world and is engaged in sales and marketing of IT products and services, simplifying the technology experience for consumers, businesses and institutions globally. HP's offerings span printing and imaging, personal computing, communication and access devices, software, services and IT infrastructure for a range of customer segments including consumers, small and medium sized businesses and enterprises.

HP's primary operations are organized into the following main business units:

Printing and Personal Systems Group (PPS): this unit is dedicated to commercial personal computers (PCs), consumer PCs, computer mobile devices, workstations, home and business imaging, printing and publishing

devices and systems (e.g., colour and monochrome printing systems for shared and personal use, multi-function laser and all-in-one inkjet devices, i.e. devices that can be used to print, scan, copy and send faxes), personal colour copiers, faxes, wide and large format inkjet printing systems, digital presses and related printing supplies (including laser and inkjet cartridges and print heads, and other related media) and digital imaging products (including scanners and photo smart printing systems). [This unit is the result of the merger of former units Personal Systems Group (PSG) and Imaging and Printing Group (IPG)];

Enterprise Group (EG): this unit relates to HP's business-critical and industry-standard data servers (e.g. Itanium servers, x86 or UNIX servers), network products (e.g. Internet Protocol, Ethernet switches, routers, Wireless Local Area Network equipment and access security solutions), storage management software, strategic IT services (including energy efficiency services or data centre transformation services) for small and medium sized businesses, enterprise and public sector customers;

Enterprise Services (ES): this unit is dedicated to IT consulting, systems integration, applications development and outsourcing of IT functions and management in infrastructure, business processes, communications, media and entertainment services, travel and transportation and Infrastructure Technology Outsourcing (ITO) services;

Software: HP software portfolio includes enterprise software solutions for IT strategy, planning and governance, security intelligence, application life cycle management, information management and operations management.

Note: HP is providing a response only for those specific questions concerning matters that HP believes are significantly relevant for our activity, omitting an answer ("N/A") for those questions where HP believes it cannot contribute with an added value perspective to this Questionnaire.

1. Standardisation involving patents is common in the telecommunication industry and in the consumer electronics industry. Which other fields of standardisation comprise patent-protected technologies or are likely to do so in the future?

Q1.1.1 Fields of standardisation involving patents: *To your knowledge, in which technological areas and/or fields of on-going standardisation work are patents likely to play an increasingly important role in the near future? What are the drivers behind this increase in importance?*

Standardisation efforts are affecting several information and communication technologies, and patent protection is potentially available for many of them. In addition to the telecommunication industry and the consumer electronics industry, standardization efforts are significant around servers, from firmware interfaces, booting, kernel and user space optimization, test and validation; manufacturing technologies; interfaces for computer network communication links; interconnects and interfaces for memory devices (not limited to consumer electronics). A relevant factor, increasing the importance of SEPs, is the applicable IP licensing policy. IP policies based on FRAND licenses are likely to drive the filing of an increasing number of SEPs v. IP policies based on Royalty Free licenses, which induce a smaller demand for SEPs. Also a greater flexibility for SEP owners in setting FRAND terms will likely generate more interests in owning SEPs, either to collect greater compensation, or, in case of adopters, to reduce the cost of access to the essential technology (by mean of cross licenses, or by collecting fees which can be reinvested to acquire missing licenses). Consequently the generation of a greater number of SEPs, not based on the real value of the inventions but only justified by the possibility to collect greater compensation, would simply cause an increase in the licensing costs for adopters and ultimately for end users, with no real benefits for the public.

Q1.1.2 Trends and consequences: *Do you see a general trend towards more/less standards involving patents? Are there any practical consequences of this trend? Are business models changing?*

On one side there is a trend for IP policies offering licenses only on a Royalty Free basis. Such an approach is not affecting the value or the adoption of a standard (e.g. USB or Bluetooth). On the other side successful standards based on FRAND IP policies seem to produce a greater number of SEPs. The most direct practical consequence of an increased number of SEPs, especially when owned by a larger number of patent holders, is an increase of the individual licensing costs, augmented further by royalty stacking. Also some business models seem to change: for

example in the smartphone and tablet space, some of the earlier contributors to the mobile telecommunication technologies, who were also direct adopters, decided to refocus their activity mainly on the licensing side. Contrary to the recent past, today the tablet and handheld phone market is dominated by adopters that do not own a significant amount of SEPs relevant for such a market.

Q1.1.3 Standardisation prevalence/complexity: *In general, do you observe an increasing role of (any type of) standardisation in your fields of activity/interest? Are standards becoming more, or less, detailed and comprehensive? How does this trend impact on the functioning of the standardization system?*

N/A

Q1.1.4 Standardisation in support of innovation: *Do you consider that standardisation involving patents contributes to innovation and to the uptake of new technologies? If so, in which areas? Would technologically neutral standardization promote innovation equally well in these areas? Should standardisation be less specific by excluding those elements that are covered by patents?*

Patented technology should not be considered a burden to innovation, to the extent that the costs associated to its access by adopters is clearer and more controlled, by providing stronger guidance and limits to the applicable licensing terms. Clearer costs will also drive adoption of a standard or, if not competitive, may cause its failure, as it happens to any non-standardised technology.

Q 1.2.1 Issue of over-/under-inclusion: *Are there fields of standardisation in which you consider that standards include too many patented technologies? Are there areas in which standards would benefit from including more patented technologies? Please explain.*

Standards including many patented technologies increase the costs for adopters (royalty stacking), which are eventually transferred to their customers. Longer term this effect may reduce competition, as fewer companies may be able to efficiently remain competitive with higher implementation and production costs. By providing stronger guidance and limits to the applicable licensing term, a clearer and more controlled access to FRAND encumbered patented technology can be provided and this would limit such negative effect.

Q 1.2.2 Criteria for inclusion decision: *What should be the criterion/criteria to use when deciding on whether or not to base a standard on a patented technology and/or to include a further patent-protected technology into a standard? How can a possible cost and benefit analysis be done? What could be used as benchmarks?*

N/A

Q 1.2.3 Process for deciding on inclusion: *Who should take the decision of including (or not) patented technologies into a standard? Should the entity suggesting the patented technology for inclusion be asked to justify the inclusion? If so, what elements should be covered, at minimum, in the justification?*

N/A

Q 1.2.4 Disputes over inclusion: *Are you aware of legal disputes over a decision to include (or not) a patented technology into a standard? What were the main facts and what was the outcome of the dispute?*

N/A

Q 1.3.1 Pertinence of these two situations: *To your knowledge, has any of the two situations occurred? If yes, where and how often? In your answer, please explain in detail why the respective conditions specified above were fulfilled. What were the consequences?*

N/A

Q 1.3.2 Defences by the patent holder: *Do you see a risk that a standard setting process could be abused to obtain (preferential) access to patent-protected technologies? Has this happened? Please explain. How can the patent holder defend his/her rights?*

A risk that a standard setting process could be abused to obtain (preferential) access to patent-protected technologies may exist. However if a patent holder can elect not to license its patent protected technology (by explicitly identifying the reserved patent(s) and the affected part of the specification) within a given time period prior to the adoption of the affected standard specification, then his/her rights will remain protected and exclusive. The standard body can then decide if the specification at issue shall be modified to exclude such patented technology, unless the reserved patent(s) is/are actually irrelevant.

2. A variety of rules and practices govern standardisation involving patents. Which elements of these rules and practices are working well and should be kept and/or expanded? Which elements on the other hand can be improved?

Q 2.1.1 Best rules and practices: *A variety of rules and practices govern standardisation involving patents. Which elements of these rules and practices are working well and should be kept and/or expanded? Which elements on the other hand can be improved? Would you consider it helpful if standard setting organizations would be more explicit about the objectives of their patent policies?*

Rules which seems to work well are as follows:

- Advance declaration about what IP licensing scheme would be applicable to SEPs owned by a member/contributor.
- Ability to exclude specific patents from the elected IP licensing scheme, by identifying the excluded patent and the affected portion of the specification, within a limited time period before the adoption of a new specification.

On the opposite side, declarations about the essentiality of certain patents offered by the patent holders, with no validation by an independent party, are at best of little or no value to potential adopters, and can also have a negative effect in negotiation, if considered to have the appearance of essentiality.

Q 2.1.2 Trends and initiatives: *The pertinent rules and practices are constantly evolving. Do you see any particular trends? What are recent improvement initiatives that you find promising or worthwhile of attention? Are there initiatives outside the SSO domain that you find helpful (e.g. patent quality initiatives by patent offices)?*

Recent statements from regulators and some of the more recent case law have improved clarity on a number of very controversial points like the availability of injunctions [see (i), (ii), (iii)] and the meaning of FRAND terms [see (iv), (v) and (vi)]: (i) http://www.uspto.gov/about/offices/oqc/Final_DOJ-PTO_Policy_Statement_on_FRAND_SEPs_1-8-13.pdf; (ii) <http://www.ftc.gov/news-events/press-releases/2012/07/ftc-testimony-expresses-concern-owners-standard-essential-patents> (iii) http://europa.eu/rapid/press-release_SPEECH-14-345_en.htm; (iv) U.S. District Court for the Western District of Washington, Microsoft v. Motorola, LEXIS 60233, W.D. Wash. Apr. 8 25, 2013; (v) U.S. District Court for the Northern District of Illinois, In re Innovatio IP Ventures, LLC, Case No. 11 C 9308 (N.D. Ill. Sept. 27, 2013); (vi) U.S. District Court for the Northern District of California, RealTek Semiconductor Corp. v. LSI Corp., Case No. C-12-3451 (N.D. Cal. June 16, 2014) Ericsson, Inc. v. D-Link Systems, Inc. (Fed. Cir. 2014)

Q 2.1.3 Differences in SSO rules and practices: *Do you see significant differences between SSOs in terms of their patent policies and/or treatment of standard essential patents in practice? If so: What are the practical consequences of these differences? Which of these differences (if any) pose problems? Which of these differences are justified?*

Newly approved IEEE IP policy is introducing significant improvements, bringing more clarity to the meaning of FRAND. See answer to Q 6.5.3.

3. Patent transparency seems particularly important to prevent achieve efficient licensing and to prevent abusive behaviour. How can patent transparency in standardization be maintained/increased? What specific changes to the patent declaration systems of standard setting organizations would improve transparency regarding standard essential patents at a reasonable cost?

Q 3.1.1 Scope of transparency issue/Priority areas: *Is there sufficient patent transparency in the fields of standardisation that are of interest to you? In which of these standardisation field(s) is patent transparency particularly good and in which field(s) is it insufficient? Please explain.*

ETSI and ITU patent declarations appear to be insufficient, as it is recognised that many of the declarations refer to patents which are not essential or are invalid.

Q 3.1.2 Ex-ante transparency: *In your experience, is there sufficient knowledge about the relevant patent situation during the discussions leading to the setting of standards? Have you experienced a situation where a standard was decided based on significantly incorrect assumptions about the relevant patent situation? What were the causes of such incorrect assumptions and what were the consequences? Could all relevant stakeholders participate in the discussions?*

N/A

Q 3.1.3 Ex-post transparency: *Either as licensor or as licensee, how do you initiate the licensing of the relevant patents? What are the means of identifying the relevant patents, the patent holders, the potential licensees, etc.? What are the respective costs of collecting information on the patent situation?*

N/A

Q 3.1.4 Non-transparent aspects: *In those areas where you deem patent transparency insufficient, what aspects of the patent situation are insufficiently transparent: (1) existence of patents, (2) validity of patents, (3) essentiality of the patents for the pertinent standard, (4) ownership of the patents, (5) enforceability of the patents, (6) coverage of patent by existing licences/pass through and (7) others? Please explain.*

All, from 1 to 6. It is impractical for a prospective licensee to make any of such analysis when the number of potential SEPs (or declared SEPs) is large or incredibly large (e.g. tens of thousands as in the cellular telecommunication standards).

Q 3.1.5 Consequences/risks: *What are the consequences of insufficient patent transparency? What risks occur, and what are the (financial) impacts if these risks materialize? If appropriate, distinguish between ex-ante/ex-post transparency and between the different aspects of patent transparency above.*

Regarding ex-ante transparency the risk is that the standard will include patented technology with higher licensing costs, which will produce higher implementation costs, and higher costs to customers. Insufficient ex-post transparency will cause the adopter to pay for licensing invalid, non-essential, and/or non-enforceable patents. This could also drive to unnecessary disputes, based on the alleged infringement of invalid, non-essential, non-enforceable patents. See:

- (i) RPX Corporation, Standard Essential Patents: How Do They Fare? at page 9, available at <http://www.rpxcorp.com/wp-content/uploads/2014/01/Standard-Essential-Patents-How-Do-They-Fare.pdf> (of 380 alleged-SEPs challenged in US courts and the ITC since 2005, just 16% held valid and infringed); (ii)
- (ii) David J. Goodman & Robert A. Myers, 3G Cellular Standards and Patents, Fairfield Resources Int'l (2003), available at <http://tinyurl.com/3GCellStandards>, at page 5 (about 80% of declared-essential 3G patents are not SEPs); and (iii)
- (iii) John Jurata, Jr. & David B. Smith, Turning the Page: The Next Chapter of Disputes Involving Standard-Essential Patents, CPI Antitrust Chronicle, Oct. 2013, at page 5 (just 1 of every 8 alleged-SEPs are ultimately upheld by courts).

Q 3.1.6 Cost of coping individually: *How do you deal with situations where you perceive that patent transparency on one or several aspects of interest to you is insufficient? Do you gather information pro-actively or do you wait to be contacted (e.g. by patent holders requesting royalties, by adopters asking for licences)? What costs are involved in dealing with situations of low patent transparency?*

N/A

Q 3.2.1 Trigger of obligation: *Patent declaration obligations could be triggered either by membership of a standard setting organization, or by participating in a specific standardisation project or by having directly suggested a (patented) technology for a draft standard. What are your views on the respective triggers (advantages, disadvantages)?*

Patent declaration obligations triggered by the participation in a specific standardisation project or by having directly contributed a (patented) technology for a draft standard appear to be fairer mechanisms, and would likely capture the majority of patent holders who are usually more active in the standardization activities. It would also avoid that patented technology owned by members who are not participating in the relevant working group will be included in a standard and encumbered by the applicable IP license scheme, without the knowledge by such member (unless a thorough review of each specification is performed).

Q 3.2.2 Required effort: *What effort should be required from a patent holder in identifying relevant patents in his portfolio? Should these efforts be contingent on the degree to which the patent holder participates in a specific standard setting process (for example whether or not he has actively contributed the technology in question)?*

N/A

Q 3.2.3 Process of declaration: *If you are a patent holder active in a standard setting body that requires patent declarations, how do you comply, in practice, with the obligation to declare specific patents? What are the concrete steps undertaken to identify such specific patents, and what parts of your organization are involved?*

N/A

Q 3.2.4 Costs of declaration: *What are the costs involved in complying with an obligation to declare specific patents? What are the respective costs of (1) identifying patents and (2) informing the standard setting organization? Would you search for patents in your own portfolio that relate to a standard, even when there is no obligation from the SSO patent policy? If yes, would your approach differ in process and thus in cost? Please be as specific as possible.*

N/A

Q 3.2.5 Blanket declarations: *Some standard setting organizations require their participants to declare that, in general, they hold essential patents over a standard without requiring that these participants identify each of these patents specifically. Do you believe that such declarations provide for enough transparency? Please justify your answer, where necessary distinguishing situations where you consider that this approach is sufficient from those where you do not.*

Blanket declarations are usually sufficient in any cases where the applicable IP licensing scheme is Royalty Free. In case of FRAND licensing schemes, this approach would be sufficient if the applicable FRAND terms are clear enough, in particular if such terms would address the more contentious issues like availability of injunctions, applicable royalty base, applicable royalty rate taking into account the ex-ante value of the applicable SEPs and the remainder of the applicable SEPs (royalty stacking), and the availability of some mechanism which would influence patent holders to remove from their offering patents that are invalid, non-essential, non-enforceable or exhausted and consequently adjust the applicable FRAND rates.

Q 3.2.6 Scope/detail: *Where standard setting organizations require that patent holders identify the relevant patents individually, what information about the patent should be transmitted? Only the patent number or other*

aspects? What are the respective benefits and costs of requiring that the patent holder also (1) specifies to which part of the respective standard the declared patent belongs and/or (2) explains why the patent is relevant for the standard?

N/A

Q 3.2.7 Consequence of non-compliance: *What should be the consequences if a patent holder has failed to comply with its declaration obligation (for the standard, for the patent holder, for licensing negotiations)? Should the respective standard setting organizations take action and what should this action be? Are the consequences of non-compliance sufficiently clear in your experience?*

At a minimum, failure to comply with its declaration obligation should limit patent holder ability to seek and enforce injunctions against all sort of adopters.

Q 3.3.1 Initial accuracy: *In your experience, what is the reliability of patent declarations at the time when they are made? In which fields of standardisation and on which aspects of the declaration would initial accuracy need to be improved? What causes of initial inaccuracy are particularly detrimental to the usefulness of patent declarations?*

Some of the causes of the initial inaccuracy seems to be the fact that declarations often occur during the development of a standard, which may be eventually adopted in a form substantially different from the one discussed or may exclude some of the technologies which were offered during development. The lack of penalties and the efforts required to correct some of the declarations can cause companies to simply maintain the original declarations as is.

Q 3.3.2 Updating requirement: *Should declarants be asked to update their patent declarations at key events such as those mentioned above? What would be the respective advantages and disadvantages?*

N/A

Q 3.3.3 Check of declarations: *Should the quality of patent declarations be submitted to a check by someone other than the declarant? Who should perform this check (peer review by members of the standard setting organization; standard setting organizations themselves; third parties on behalf of the standard setting organizations; patent offices; etc.)? What should be the scope of the check (essentiality for the standard; validity; enforceability; other)? Who should bear the cost of such a check? If you think the declarant should bear (part of) the cost, how can it be prevented that this creates an incentive to disrespect the declaration obligation?*

Today there is a clear lack of interest by any declarant to be more rigorous on the quality of the patent declarations. A mechanism is lacking where the removal of non-essential, invalid, non-enforceable patents would directly benefit and increase the reward of the owners of valid, enforceable SEPs.

Such a mechanism is available in patent pools, where a thorough third party's assessment determines if a patent is essential, valid and enforceable, and thus available for addition to the pool. It is in all parties' interest to avoid that the pool includes irrelevant patents, which would take portions of the royalties away from the owners of essential and enforceable patents.

A similar check mechanism could be offered by the SSO, by employing a law firm who can perform validity, enforceability, and essentiality tests. In one model the costs can be borne by patent holders, who can have incentives in getting SEPs validated; by inducing faster negotiations, as a perspective licensee would have less need to challenging such patents (as they would be less likely to succeed); or by permitting to seek injunctions (when allowed by the applicable law and applicable IP policy) only under validated SEPs.

Q 3.3.4 Essentiality check (in particular): *Depending on your answer to the above question, how can the essentiality check be performed in practice? What are the average cost of checking essentiality (for third parties) and what could be done to minimize these costs? Do you see a set-up of such a check that is particularly cost and time efficient? How can it be avoided that this check creates incentives for not respecting the declaration obligation?*

N/A

Q 3.4.1 Publication: *Should standard setting organizations make the declared patent information publicly available? Do you see any impacts on the protection of personal data? Under what conditions would it be justifiable to restrict access or to charge for access?*

Patents are public information, then any relevant declaration regarding the applicable licensing conditions for implementing an open standard should be made public. Also if the scope of a standardization efforts is to increase adoptions of the standard to facilitate compatibility and interconnectivity of solutions, a broader access to declarations would generate more certainty for interested adopters of the standard.

Q 3.4.2 Ease of access: *What are your views about the various methods used by standard setting organizations to make the declared information available? Which methods do you find particularly useful and why?*

N/A

Q 3.4.3 Combining information: *Some standard setting organizations combine declared information with information drawn from other sources, such as patent offices. What are your views on this? In what forms and to what fields of standardization could this be expanded? What sources of information (in addition to patent offices) could be used and what types of information could be added?*

N/A

Q 3.5.1 General question: *What can be done to increase standardisation-related patent transparency other than to strengthen the system of patent declarations used by standard setting organizations?*

It can be very helpful that information known to the patent holder, maybe through negotiations or litigations, that are relevant to determine the validity, essentiality and enforceability of its SEPs are made available to all prospective licensees to improve efficiency and reduce discrimination. Today a number of efforts, such as searching for prior art or performing invalidity and non-essentiality studies, are repeated by a number of perspective licensees in preparation of negotiations, increasing inefficiencies and then licensing costs. When some of such studies are successfully used by individual licensees during negotiations, the rest of the community receives no benefit as such information is kept confidential by the licensee and the patent holder.

If the disclosure of such information is made mandatory, the patent holder shall identify its relevance to the validity or essentiality of a specific SEP claim to avoid that useful information will be hidden in vast disclosures of information of unclear relevance.

If a mechanism to check SEP declarations is set by employing a third party, such relevant information shall be disclosed to such third party, for use to confirm past validations or perform new ones, and for access by any perspective licensee.

Q 3.5.2 Public patent landscaping: *Public patent landscaping in the context of standardisation would be an exercise where (1) patents that are relevant to the particular technological/product area to which the standard relates are identified and (2) this information is then shared with all interested parties. Do you see benefits of such public patent landscaping and in which areas would this be particularly useful? Who should perform this exercise (e.g. patent offices, commercial service providers, public authorities) and how could this exercise be financed?*

As per the answer to question 3.5.1, there is more interest in information which is readily usable (e.g. invalidity charts prepared by perspective licensees and shared with the patent holder). Patent landscaping in certain areas would return thousands of patents which would require substantial effort to produce any value in a negotiation for SEP licenses.

4. Patents on technologies that are comprised in a standard are sometimes transferred to new owners. What problems arise due to these transfers? What can be done to prevent that such transfers undermine the effectiveness of the rules and practices that govern standardisation involving patents?

Many SSOs are already improving their IP policies to prevent that FRAND encumbered patents be asserted against adopters by the new owners. We are in favour of such a trend.

Q 4.1.1 Prevalence: *How common is it, in your area of activity or interest, that standard essential patents are transferred? Are standard essential patents transferred more, or less, often than other patents? Do you see any trend in the transfer rate? Do transfers usually concern individual patents or larger patent portfolios?*

Essential patents are and will be transferred in our area of interests. On occasion patents may not have been identified as essential but are still potentially subject to a blanket FRAND declaration or a FRAND IP Policy.

Q 4.1.2 Issues and consequences: *In your experience, what are the typical issues that arise in the context of transfers of standard essential patents? Are such transfers leading to more or less fragmentation of SEP ownership? Are these transfers leading to more or less disputes/litigation? What is their impact on royalty rates for the transferred patents and on the total royalty rate for all patents essential for a standard?*

Depending on what patent holder is transferring SEPs, it is possible that a transfer may lead to more litigation and/or have an impact on royalty rates. For example, if a large FRAND encumbered SEP holder (e.g. owning more than 1000 FRAND-encumbered SEPs) decides to sell a small fraction of its portfolio (e.g. 50 FRAND-encumbered SEPs) it is likely that its charged royalty rate would not suffer any significant reduction, while the purchaser will be entitled to obtain its FRAND rate for licensing such small fraction of patents and enforce such patents if needed. Also SEPs which a patent holder is holding mainly for defensive purposes may be transfer to a new holder that may be more interested in monetization activities.

Q 4.1.3 Non-practising entities: *Have you encountered transfers of standard essential patents to entities that do not produce or market products including the technologies covered by these standard essential patents? What particular consequences have you observed?*

Non-practicing entities have been actively and widely purchasing SEPs. Non-practising entities are more likely to litigate as they have no products exposed to counterclaims and licensing is the main manner to get a return from their investment. According to 2013 NPE Litigation Report from RPX Corp.'s report NPEs litigation accounted in 2012 and in 2013 for the majority of newly filed patent litigations in US (respectively 64% and 67% of the total) [see page 12 at <http://www.rpxcorp.com/wp-content/uploads/2014/01/RPX-2013-NPE-Litigation-Report.pdf>]. Such trend appears to be confirmed also for year 2014 with 62% of the total number of new litigations being filed by NPEs [see <http://www.rpxcorp.com/2015/01/09/2014-npe-litigation-new-and-smaller-targets-2>].

Q 4.2.1 Impact on effectiveness: *Is there a risk that SEP transfers circumvent existing patent policy rules of standard setting organizations or render them less effective? Please explain and if possible cite specific examples.*

N/A

Q 4.2.2 Specific rules: *In your area of interest, are there specific rules governing SEP transfers and what is your experience with them? Where there are no specific rules, would you see a need for such rules? What should be their objectives (achieving transparency about ownership, providing legal/business certainty, reducing litigation risks, facilitating smooth licensing process, fostering research and innovation activity, etc.)?*

More frequently SSOs request members to assure that RF or FRAND encumbrances are specifically transferred with the rights in the transferred SEPs. The main objective is to provide legal/business certainty that access rights to such transferred SEPs is maintained unaltered.

Q 4.2.3 Transfer of FRAND commitment: *How can it be ensured that the new owner of the transferred SEP is bound by the FRAND licencing commitment given by the initial owner? What can standard setting organizations do in this*

regard? What do the sellers of the SEPs need to do? Should the licencing terms (including royalty rates) practiced by the initial owner influence the interpretation of the concept of "FRAND" for the new owner?

The new owner of the transferred SEP can be bound by the FRAND licensing commitment given by the initial owner by adding specific provisions in the sale/transfer agreement.

Q 4.2.4 License of right: *Have you been involved in the use of a License-of-Right system? What benefits and risks are, in your opinion and experience, linked with this? Are there important differences across national jurisdictions that reduce the reliability of License-of-Right provisions?*

N/A

5. Patent pools combine the complementary patents of several patent holders for licensing out under a combined licence. Where and how can patent pools play a positive role in ensuring transparency and an efficient licensing of patents on technologies comprised in standards? What can public authorities and standard setting organizations do to facilitate this role?

Q 5.1.1 Target areas: *What are the situations/external factors which render a patent pool useful? Are you aware of specific standards for which a patent pool would be useful but where there has been a failure to create one?*

A patent pool can be an interesting instrument to address many of the existing weaknesses of the FRAND licensing model.

First, it is in the interest of the patent pool and its members to exclude from the pool any patent which is non-essential, invalid, and non-enforceable, as more royalties will be redistributed to owners of essential, valid and enforceable patents. Also the stronger is the patent pool, the more likely adopters will be willing to take a license and less inclined to litigate or challenge the patents.

Secondly, license rates from patent pools are often more affordable than license rates from individual patent owners. There is some clear economy of scale where a single negotiation is taking place instead of one per member of the patent pool. The larger the pool (more patents and more members) the more efficient will be the licensing negotiation and the lower the associated costs and fees. Also knowing that the same terms and royalties have been offered to other companies reduces concerns and increases willingness to negotiate further. In short, according to the above more adopters will be interested in taking a license from the pool, resulting in an increase in the number of licensees and licensed products, which can then justify a reduction in the unitary royalties applicable to each licensed product.

Third, by creating more incentives for patent holders to join a patent pool, royalty stacking issues will become less controversial for adopters, as the offered royalties will cover a larger percentage of the available SEPs and the amount of stacked royalties will be known in advance. It will be beneficial if such royalty rates will be made public as soon as possible, potentially prior than adopters initiate substantial investments to implement the standard. Also as rates are usually public, such rates will provide a strong guidance for SEP holders offering licenses under their SEPs outside of the pool. Incentives could include the ability to seek injunctions under a SEP, only if the SEP is available in a patent pool, in accordance with the applicable law and IP policy. At the same time a proliferation of several separate patent pools should be discouraged or many of the benefits will be missed.

Forth, a patent pool also is usually flexible enough to allow an individual member and an individual adopter to negotiate licenses (or even cross licenses) outside the pool. In some cases the pools will offer discounted rates (by excluding the part of the royalty due to a given member) to the already licensed adopter or the adopter and the licensor can agree how to get refunded the excess royalties paid by the adopter to the pool.

Q 5.1.2 Benefits of patent pools: *What are the benefits of patent pools in the above situations (Q 5.1.1) respectively for patent holders and/or patent users? What aspects in patent pool governance are particularly relevant in practice to ensure the realization of these benefits?*

See answer to Q 5.1.1.

Q 5.1.3 Alternatives to patent pools: *What alternatives to patent pools do you see to achieve efficient licensing in situations where ownership of patents which are essential to a standard is widely dispersed?*

N/A

Q 5.1.4 Difficulties of pool creation: *What are the main difficulties in setting up a patent pool and how can they be addressed? Are there differences in national law or its application across countries of the EU/EEA or worldwide that make patent pool creation more difficult?*

The main difficulty would be to provide sufficient incentives for at least the main SEP holders to combine their portfolios into a common patent pool.

Q 5.1.5 Costs of pool creation: *What are the costs involved (do you have estimates)? What do these costs depend on? How are they usually (pre-)financed?*

Initial costs are usually financed by members. Follow up costs are financed by reserving a share of the collected fees.

Q 5.2.1 Decision to participate in pool: *What factors influence a patent holder's decision to participate in a pool or not?*

Main factors favouring to join a patent pool are usually the following:

- 1) Lack of resources to (i) investigate and pursue infringers, especially in several jurisdictions, (ii) engage with customs to monitor importation of infringing goods, and (iii) negotiate license agreements with several adopters ; and
- 2) Exposure to counter claims by targeted adopters.

Q 5.2.2 Incentives for pool participation: *How can this balance be influenced positively? What incentives can be provided by public authorities and/or standard setting organizations to increase patent pool participation?*

An incentive could be the ability to seek and enforce injunctions under a SEP, subject to the availability of a license under the SEP from a patent pool, in accordance to the applicable law and IP policy. More incentives should be offered to limit the creation of several pools per standard specification.

Q 5.3.1 Right moment for pool creation: *What is the right moment in the standard setting process to start the process of creating a patent pool? What part of work on setting up a patent pool start could/should be done in parallel to the standard setting discussions?*

The process of creating a patent pool would likely occur after the standard setting discussions, as more SEPs are granted.

Q 5.3.2 Role of SSOs: *What contribution can standard setting organizations make with regard to patent pools? Should they provide guidance patent pools? Should they provide and/or select patent pool administration services?*

N/A

Q 5.3.3 Role of public authorities: *What contribution can public authorities make to facilitate patent pool creation? What role could publicly owned patents play? Are there specific features of non-EU legal systems that could be useful also in the EU? Under what conditions and to what purpose would public financial support be beneficial?*

N/A

6. Many standard setting organizations require that patents on technologies included in their standards are licensed on "fair", "reasonable" and "non-discriminatory" (FRAND) terms, without however defining these concepts in detail. What principles and methods do you find useful in order to apply these terms in practice?

From an economic perspective, a RAND commitment should be interpreted to limit a patent holder to a reasonable royalty on the real economic value of its patented technology itself, apart from the value associated with incorporation of the patented technology into the standard and its use on some specific products.

Q 6.1.1 Notions "fair" and "reasonable": *How, in your view, should the terms "fair" and "reasonable" be understood? Which of the above methodologies do you consider particularly appropriate, which other methodologies do you find important and what could be an appropriate mix of references?*

When licensing a SEP on "fair and reasonable" terms and conditions the following principles should be taken into account:

The value of the SEP shall be assessed based on the value of the claimed invention, not including any patent hold-up, lock-in or other value associated with the inclusion of the SEP in the standard specification (or Recommendation | Deliverable).

The value of the SEP shall be assessed in light of whether the aggregate royalties that would apply if other owners of SEP included in a standard specification (or Recommendation | Deliverable) demanded similar terms are consistent with the widespread adoption of the standard specification;

The value of the SEP should be assessed with reference to the smallest saleable patent practicing unit bearing the closest relationship to the portion of the invention claimed in the patent that is essential to the standard specification (or Recommendation | Deliverable), but should be further apportioned when the smallest saleable patent practicing unit contains functionality beyond that claimed in the SEP.

The prospective licensee shall not be forced to pay royalties on components, systems or finished products unrelated with the implementation of the specification as stated in *LaserDynamics Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 68 (Fed. Cir. 2012),

Q 6.1.2 Examples of non-FRAND licences: *Are you aware of cases of licenses of standard essential patents that, according to you, do not fulfil the FRAND terms and conditions? Please be as specific as possible.*

An example of an offer which in our opinion does not fulfil the FRAND terms and condition is Motorola Mobility's offer to Microsoft under its SEPs for implementing the H.264 and the IEEE 802.11 standards, requiring the payment of royalty of 2.25% of the retail price of each device that implement a standard (e.g. smartphone, Xbox etc.). HP substantially agrees with the finding of the U.S. District Court for the Western District of Washington in *Microsoft v. Motorola*, LEXIS 60233, W.D. Wash. Apr. 8 25, 2013. A further example, directly affecting our company, has been described and examined by Judge Holderman in the U.S. District Court for the Northern District of Illinois opinion in *re Innovatio IP Ventures, LLC*, Case No. 11 C 9308 (N.D. Ill. Sept. 27, 2013).

Q 6.1.3 Time required for negotiations: *In your experience, how long does it take, on average, to negotiate FRAND terms? What does the length of negotiations depend on? Is it more or less difficult/fast to reach an agreement on FRAND terms and conditions for standard essential patents licenses compared to other similar patent licensing deals?*

The duration of a negotiation strongly depends on the "fairness" of the licensing terms and the associated royalty rates. The addition of onerous terms like the following are likely to extend the duration of any negotiations: grant back licenses; covenants not to sue or defensive suspensions affecting patents owned by the prospective licensee, also outside the scope of the standard; obligations to take broad portfolio licenses extended to more than the specific SEPs applicable to the relevant standard or to all patents that have been unilaterally declared SEPs by the

SEP holders. Also the imposition of large royalty base (broader than the features implementing the interested standard) and high royalties would affect the negotiation. Patent holders are frequently leveraging the need to offer (non-public) non-discriminatory conditions as a basis to refuse or strongly limit negotiations of royalty rates and other major terms for non-discriminating past licensees. Such an approach would also make negotiations more difficult.

Q 6.1.4 Initial offer or outcome: *Do the terms "fair" and "reasonable" relate to the initial offer of the patent holder or to the actual outcome of negotiations? Are you aware of FRAND adjudication cases where there was a large difference of terms and conditions between the last offers of the licensor on the one hand and the last offer of the licensee on the other?*

If the initial offer is not fair and reasonable then a risk exists that an adopter, which is less experienced or under constraints limiting his negotiation power, would end up with a license which is not fair and reasonable, and consequently not compliant to the FRAND commitment. The burden to offer a license which is fair and reasonable is clearly on the patent holder, which freely committed its SEPs to a FRAND license in exchange of the inclusion of its technology in the standard and the ability to collect FRAND compensation for its licenses. The adopter should have no burden or obligation to thoroughly negotiate the license to make it fair and reasonable. Furthermore, allowing the SEP holder to make an initial offer at terms which are worse than FRAND terms would unnecessarily extend the negotiation period.

Q 6.1.5 Other methods of ensuring reasonableness of licensing terms and conditions: *Can patent pool prices for a given standard be a proxy for FRAND terms and conditions? What are the limits of the use of patent pools as a proxy? How can bias coming from such a method be avoided?*

N/A

Q 6.2.1 Existing guidance: *To your knowledge, what guidance on FRAND definition already exists (regulators, standard setting organizations, courts)? Which of this guidance do you consider as particularly useful? Would you welcome additional guidance? If so, on what specific aspects of FRAND?*

Some very useful guidance is offered by the following U.S. court case: (i) U.S. District Court for the Western District of Washington, *Microsoft v. Motorola*, LEXIS 60233, W.D. Wash. Apr. 8 25, 2013; (ii) U.S. District Court for the Northern District of Illinois, *In re Innovatio IP Ventures, LLC*, Case No. 11 C 9308 (N.D. Ill. Sept. 27, 2013); (iii) U.S. District Court for the Northern District of California, *RealTek Semiconductor Corp. v. LSI Corp.*, Case No. C-12-3451 (N.D. Cal. June 16, 2014; U. S. Court of Appeals for the Federal Circuit, *Ericsson, Inc. v. D-Link Systems, Inc.* (Fed. Cir. 2014)

Q 6.2.2 Unilateral ex-ante disclosure: *Would you welcome a larger role for unilateral ex-ante disclosure of licensing terms in order to facilitate the licensing of SEPs? What form could it take? How should SSO mechanisms be shaped to facilitate this instrument? Should they be mandatory or voluntary? Should the disclosure only concern the most restrictive terms?*

Voluntary ex-ante disclosures have proven not to work effectively, as SSOs offering such mechanisms received no or an irrelevant number of ex-ante disclosures.

Q 6.2.3 Ex-ante setting of parameters: *Alternatively, would it be efficient to set FRAND parameters - within the limits of competition law - at the beginning of discussions of a technical committee within or outside an SSO in order to facilitate the future FRAND licensing? Such parameters could be: the royalty base (at end product or component level, if component what component (s)), royalty type (lump sum, per unit price, percent value of a product/component). What other parameters could be discussed upfront to make licensing more practical, without violation of competition rules?*

A concern in this arrangement is that it could create a greater incentive for contributors, who will be the main SEP holders later (in the absence of sole adopters), to set terms which appear as fair and reasonable mainly/only from a SEP holder perspective. However setting in advance some FRAND parameter which are clear and accessible will

improve clarity and allow implementers to assess their costs in advance, in particular prior than making substantial investments, limiting the risks of patent hold-up.

Nevertheless it is important that some mechanisms are also set up to validate that the values for FRAND parameters which has been offered ex-ante are really FRAND.

Q 6.3.1 Advantages of portfolio licensing: *What are the advantages of portfolio licences respectively for the patent holder and for the adopter? How important is the so-called "freedom to operate" or "patent peace" between companies? Please cover in your answer also issues of scope (e.g. geographic scope, product scope, inclusion of future patents).*

From an adopter perspective there is no interest, and it is not a sustainable model, to license a small part of a portfolio (e.g. only the asserted patents) and later be subject to further disputes under additional patents. In particular when the patent holder is in control of a large portfolio there is already a very strong incentive on the adopter to license the entire portfolio and to avoid further disputes which will be more expensive and time consuming, and less justifiable from a business perspective. This is already the main driver in many portfolio licenses which are occurring under non-SEPs. What appears as an arbitrary imposition is an obligation to take a portfolio license when the adopter has made a reasoned decisions that there is no need to take a license under additional SEPs, for instance since all the other SEPs (e.g. in a smaller portfolio) are considered to be non-infringed or invalid.

Q 6.3.2 Determination of portfolio license value: *How can the value of licences over large portfolios be determined if there is disagreement over the validity, essentiality/infringement or enforceability of (some) patents included in the portfolio? Is sampling (i.e. the review of a representative set of patents) a good approach for the evaluation of a patent portfolio? If so, how should sampling be done?*

The challenge of sampling patents is that there is no easy mechanisms which would allow to select a meaningful representation of the entire large portfolio, e.g. to guarantee that the same distribution of invalid, non-infringed/non-essential and non enforceable patents identified in the arbitrary selection is a reflection of the entire sampled portfolio.

Q 6.3.3 Cross-licenses: *What are the advantages of cross-licensing? What problems arise? How do the concepts "fair" and "reasonable" apply to cross-licensing?*

A party who has voluntarily decided to license its SEPs for a FRAND compensation should not be entitled to force an adopter to license its patents, which such adopter instead has voluntarily decided not to commit to any license, to be offered a SEP license. In case that the SEP holder has made his FRAND commitment subject to a reciprocal commitment from its licensee, then its entitlement to receive a reciprocal license shall be limited to the patents licensable by the potential licensee which are essential to implement the same standard specification.

Q 6.4.1 Pertinence and impacts: *In your experience how common is royalty stacking and in which areas of past, ongoing, or planned standardization does it exist or will it likely occur? What problems arise in such situations? How do individual companies deal with such situations and what are the (financial) costs?*

Royalty stacking is extremely common in many standardization activities covered by a large number of SEPs owned by several different parties. 2G, 3G, 4G standards, codecs and Wi-Fi are few examples of areas where royalty stacking is becoming onerous for adopters. No licensing scheme seems to be designed in a manner to take into account the total licensing costs of implementing a standard.

Q 6.4.2 Co-ordination mechanisms: *What forms of voluntary co-ordination mechanisms are, or could be, efficient for situations of royalty stacking? Should they be limited to a single standard, or cover families of standards, or cover all standards related to a type of product? How can the abuse of such mechanisms, for example by a group of dominant license-takers, be avoided?*

N/A

Q 6.4.3 Method for allocating value: *In order to improve methods to deal with royalty stacking and for adjudicators to find proportionate FRAND value, what are best ways to allocate value between patent holders of a given standard? How can the proliferation of patent applications in case of simple patent counting be avoided?*

Many successful patent pools have been able to allocate appropriate value to the satisfaction of patent holders who have voluntarily contributed to the pool.

Q 6.5.1 Current business practices: *On what level of the value chain (e.g. component, bundle of components, final product) does SEP licensing currently take place in the fields of standardization in which you are active/interested? Is this business practice applied by all patent holders/adapters or are there different business practices?*

Frequently, especially in case of patent pools, licensing may happen at different levels, as the royalty is fixed (with lower per unit fees for greater volumes) and not strictly dependent on the value of the component, bundle of components or final product. On occasions a patent pool is fragmented into smaller different pools of patents which are then licensed to different categories of adopters requiring licenses under different patents, but any adopter is usually able to take a license under any pools if it desire so. In 2G, 3G and 4G, and similar telecommunication standards, the SEP licensing is occurring at the final product level (targeting as licensee the OEM branding the final product, or sometimes the ODM manufacturing the final product to be purchased by the OEM) and this business practice is applied substantially by all patent holders irrespective to the requests of adopters or other suppliers in the value chain.

Q 6.5.2 Royalty base: *How should the royalty base be selected to allow licensing for different types of products (products that rely entirely on a given standard or set of standards, or rely mostly on a set of standards or on multiple technologies)? For a given implementation of a standards in a product, to what extent would it be desirable or feasible that the royalty type be streamlined, e.g. in a percentage of the product value, royalty per unit sold, or lump sum?*

The royalty base should not be selected in a way that it would increase the reward of the SEP holder of a given standard for the inclusion of technologies or standards not contributed by such SEP holder. The royalty base should be selected with reference to the smallest saleable patent practicing unit bearing the closest relationship to the portion of the invention claimed in the patent that is essential to the standard specification (or Recommendation | Deliverable), and should be further apportioned when the smallest saleable patent practicing unit contains functionality beyond that claimed in the SEP. It is our understanding that an end product containing functionality beyond that claimed in the SEP should not be considered to determine the royalty base.

Q 6.5.3 Need for clarity: *Is this issue, in your opinion, currently addressed in the patent policies of the standard setting organizations in your area of activity/interest? Is there a need for more explicit rules or should this be left open?*

There is a strong need for clarity for the meaning of FRAND. We welcome the IEEE's recent decision to substantially improve clarity in its patent policy, which will help ensure that SEP holders will receive FRAND compensation. This importation decision is also expected to increase the adoption rate of IEEE standards by implementers, by reducing the risk of being charged unreasonable royalties, and consequently will promote competition among implementers, and increase choice for end-users. Such clearer FRAND terms will also benefit contributors as they can better adjust their investments to a clearer and more sustainable model of FRAND licensing. There is no expectation that such a change will affect the quality and number of contributions in IEEE standards, as the quality of the contributions is not dependent on the compensation which can be directly obtained from implementers. In fact many successful standards do not require the payment of any royalties to contributing SEP holders for the use of their SEPs for implementing the standards, e.g. USB or Bluetooth.

Q 6.5.4 Impacts of changes: *What are the advantages of giving or denying the patent holder the right to licence only on one level in the value chain and thus of allowing or prohibiting that he refuses licences to adopters on other levels? Please distinguish between impacts on patent holders, on component makers, on end product makers and on the standardization system itself.*

The commission in its Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements appears to provide a clear guidance on what a FRAND commitment means; in particular it stresses the need to offer to license their essential SEPs to all parties and not only to all parties at certain level in the value chain: “In order to ensure effective access to the standard, the IPR policy would need to require participants wishing to have their IPR included in the standard to provide an irrevocable commitment in writing to offer to license their essential IPR to **all third parties** on fair, reasonable and non-discriminatory terms (‘FRAND commitment’)”. We entirely share the Commission’s view expressed in this guideline.

Any arbitrary limitation in the requirement to offer to license essential IPR to all third parties may generate discrimination among adopters at the same level: for instance between components makers owning a large number of SEPs and component makers not owning SEPs.

In this scenario the second class of component makers may have part of its offering completely dependent on the will of a competitor, which is a SEP holder, which may suddenly decide to collect royalties from companies in such second class, causing disruption in their business practice.

Also such SEP holders may be able to differentiate their offering, against their unlicensed competitors, and provide more advantageous deals to potential common customers, by including in the cost of the components a substantial part of the required SEP licenses, obtained by leveraging their SEPs portfolio.

From an end product makers perspective such scenario creates some substantial concerns, resulting in an increased costs to access SEP licenses:

- The end product maker is forced to negotiate a SEP license for the use of a technology implemented and supplied by a component maker
 - The end product maker has objective difficulties in assessing if a given patent is infringed by an undisclosed implementation of its supplier;
 - The end product maker is often unexperienced in the component technological field, then it will be harder to argue against the value and validity of selected SEPs, unless greater investment are made to acquire such skillset, needed only for a negotiation purpose;
 - Marginal ability to (directly or indirectly) modify the component to design around patents of uncertain essentiality.
- Indemnities from a component maker are often not a viable business option as:
 - negotiations will be made in the name of the end product maker, and terms and conditions of the agreement will mainly affect such end product maker, which then would strongly influence negotiations and increase supplier’s exposure;
 - offering indemnities may requires a substantial investment from supplier, in particular when the component selling price is close to or even smaller than the cost of the cumulative royalties to be paid to the various SEP holders.

Q 6.6.1 Definition in practice: *In your opinion, what is the best definition of the non-discrimination principle? What aspects of non-discrimination do you find important? Is there sufficient clarity on what non-discrimination means and how it is to be applied in practice? Does the non-discrimination principle relate to the initial offer of the patent holder or the actual outcome of negotiations? Does it relate to an offer isolated to a single standard or to multiple standards? Do you consider that the non-discrimination principle creates obligations on the (potential) licensee?*

One of the important aspects of non-discrimination is to offer access to all third parties to SEP licenses.

If the initial offer is non-discriminatory a risks exists that an adopter, which is less experienced or under constraint limiting his negotiation power, would end up with a license which is discriminatory, and not compliant to the RAND

commitment. The burden to offer a license which is non-discriminatory is clearly on the patent holder, who freely decided to commit his SEPs to a FRAND license, in exchange of the inclusion of its technology in the standard, and the ability to collect FRAND compensation for its licenses. The adopter should have no burden or obligation to thoroughly negotiate the license to make it non-discriminatory. Furthermore, allowing the SEP holder to make an initial offer at terms worse than FRAND terms would unnecessarily extend the negotiation period.

Q 6.6.2 Pertinence: *In your experience, is the non-discrimination commitment sometimes/often broken? In what ways is it broken? Please provide examples. Is there sufficient transparency about licensing terms to allow participants to assess whether they are discriminated against?*

Each time that access to SEP licenses is precluded to an arbitrary category of potential licensee for the implementation of the license, there is a potential breach of the non-discrimination commitment.

Q 6.6.3 Justification for discriminations: *Are there any reasons why individual adopters could be excluded from the obligation to license to (reciprocity)? What would justify different terms and conditions for FRAND licenses?*

Reciprocity can only be leveraged if the RAND commitment as initially made was subject to reciprocity, and any reciprocity obligations should exclude any license under non-SEPs and SEPs unrelated to the standard under license.

Q 6.6.4 Cash-only/cash-equivalent: *One idea discussed in the standardization community in order to make licensing terms comparable in cases, where non-cash elements such as cross-licenses are used with some adopters, is to foresee that a cash-only offer is made. What is your opinion on this? Should this idea apply only in some instances and, if so, in which? Should this be a genuine self-binding offer or would a cash equivalent estimation of non-cash components be preferable?*

It is very hard to quantify the value of a cross license as it depends on many factors, some independent from the perspective licensee (as portfolio sizes, country coverage, filing dates, etc.), but others would differ from licensee to licensee, e.g. product/services licensed under the cross license, corresponding licensee's volumes etc. Also the benefits for the Licensors would be dependent on the volumes of its own products/ services which will be licensed, the country of distribution or manufacture etc. For instance a Licensor having minimum interests in China would have limited benefits in obtaining a cross license under a portfolio which is particularly strong in China.

Q 6.6.5 Other mechanisms/differences in national jurisdictions: *What other mechanisms for ensuring non-discrimination are you aware of? What are their respective costs and benefits? Where and how should they be implemented (at standard setting organisations or in regulations)? Are there differences across national jurisdictions in the EU/EFTA or worldwide that negatively impact on these solutions?*

N/A

7. In some fields standard essential patents have spurred disputes and litigation. What are the causes and consequences of such disputes? What dispute resolution mechanisms could be used to resolve these patent disputes efficiently?

Q 7.1.1 Pertinence of the issue: *In your experience how often do disputes over SEPs arise, notably in comparison to patents that are not standard essential but comparable? Are there typical circumstances that make disputes particularly likely to arise? What role do business models or product life-time cycles have in this regard?*

Easier availability of injunctions or exclusion orders in a given jurisdictions is one of the key factors to make such a jurisdiction a likely place where a dispute may arise. Unsurprisingly countries like Germany or India, or the International Trade Commission, where injunctions or exclusion orders are or were more likely to be granted have become the more likely place where a dispute under SEPs is/was initiated.

Disputes under SEPs are more easily initiated based on the standard specification to which the adopter is compliant. Claim charts can be more easily made to read on a standard specification, which is usually publicly available or

simpler to obtain, than on products alleged to infringe that may require performing more complex reverse engineering.

Q 7.1.2 Main areas of disputes: *What are the main areas of disputes over SEPs (infringement/ essentiality, validity, value, etc.)? How are these areas related in the practice of negotiations and litigation?*

Despite the widespread use of FRAND commitments, a uniform and widely-accepted definition of FRAND does not exist. As a result, there has been a flurry of litigations. Some of these disputes focus on the level of royalties that should be considered “reasonable” under a FRAND commitment; some dispute whether patents are “essential” to a standard and subject to FRAND requirements; some question the ability of a patent holder to obtain injunctive relief against an infringer when the patent holder is subject to a FRAND commitment and others question whether the “non-discriminatory” component of FRAND permits a patentee offer to license only at the end-user equipment level. In some jurisdictions conflicts are exacerbated by the so called “bifurcation issue”, where the validity and the infringement of a patent are judged independently by different courts or authorities. Negotiations can be heavily influenced by a decision on the infringement of a patent, in particular if an injunction is granted when the validity of the same patent has not been decided yet. A later decision on the invalidity of the same patent may produce no or limited effects on a closed negotiation, especially if involving a greater number of patents.

Q 7.1.3 Cost of disputes: *What are the typical costs of settling SEP disputes? What factors drive these costs in practice and to what extent? How do firms try to minimize costs?*

Standards aggravate the hold-up problem that arises when patentees use the threat of an injunction as a bargaining tool to charge exorbitant fees. Hold-up typically occurs when a patentee threatens an injunction after the accused infringer has made a substantial investment to develop a product and bring it to market. It enables the patentee to capture not just the value of the inventive contribution that they have made but also some greater amount of money than their invention is worth.

The multiplicity of standards and SEPs, in conjunction with the threat of hold-up further leads to the problem of royalty stacking. In particular, royalty stacking is when numerous patent holders each demand unreasonably high royalties on the same product. This can result in a total royalty burden that renders the product commercially unviable.

Q 7.1.4 Impact of disputes on standardization: *Do you perceive an impact of disputes on the standardization work itself? Do standardization participants foresee future disputes and adapt their behaviour during the standardization process accordingly?*

There has been a surge in patent litigation and a growing lack of adherence to standards bodies’ existing patent policies. Some standardization participants are using standards-essential patents to block markets and potentially stifle innovation instead the encouraging it. Holders of SEPs may take advantage of the standardization process and cause patent hold-up by excluding competitors from a market by refusing to license the SEP or by charging exorbitant and unfair licensing fees for the SEP. Patent hold-up has the potential of hurting consumers when potential licensees either decline to incorporate the standard technology or pass on the licensing cost to the consumer.

Q 7.2.1 Usefulness of alternative dispute resolution: *In your experience, does ADR currently play an important role in resolving SEP disputes? Is it regularly considered/discussed when SEP disputes arise? Do you see any trend in its prevalence?*

N/A

Q 7.2.2 Target areas: *Which situations/external factors render an alternative dispute resolution mechanism particularly useful? In what areas of patent based standardisation would ADR be particularly useful?*

N/A

Q 7.2.3 Suitable forms of ADR: *What form of ADR (mediation, arbitration, other) do you consider suitable for what type of conflict?*

N/A

Q 7.2.4 Benefits of ADR: *What are the benefits of alternative dispute mechanisms applied to SEP disputes respectively for patent holders and/or patent users? What are the most important conditions to ensure that these benefits materialize?*

N/A

Q 7.2.5 Difficulties and costs: *What are the main difficulties and costs for parties in agreeing to and setting up a given dispute resolution mechanism? What do the costs depend on? Do rules on ADR differ between jurisdictions and does this create problems?*

N/A

Q 7.3.1 Your experience: *Are you participating in SSOs that have ADR mechanisms? To your knowledge are they being used? If so, what are the experiences? If they are not used, why not?*

N/A

Q 7.3.2 Role of SSOs: *To what extent and how should SSOs be involved in the creation and provision of alternative dispute resolution mechanism? Should procedural aspects be further defined in SSOs in order to facilitate the use of ADR?*

N/A

Q 7.3.3 Incentives to use ADR: *What incentives are necessary for parties to use ADR? Please explain those incentives depending on the type of ADR mechanism and/or type of dispute concerned.*

N/A

Q 7.3.4 Voluntary/mandatory: *What are the benefits and risks of making ADR mandatory for the resolution of SEP disputes? What consequences would this have for participation in standardisation, for licensing negotiations and for the implementation of a standard? If ADR would be made mandatory: Should it be linked to membership in SSOs, or to the fact of contributing a patented technology to a standardisation process, or other? Should there be an opt-in/opt-out possibility at the declaration stage? Should ADR replace litigation completely or should it be a mandatory step (e.g. mediation) before litigation?*

N/A

Q 7.4.1 Specificities of ADR for SEP disputes: *Which particular features should ADR mechanisms have in order to be (more) suitable for SEP disputes? What would constitute a ADR mechanism "tailor-made for SEP disputes"?*

N/A

Q 7.4.2 Scope of ADR: *Which issues such as rate, validity, essentiality and infringement should be addressed by ADR in SEP disputes? Which territory should be covered? When is the adjudication of a global license suitable and when not? Should ancillary claims also be addressed and if so, how?*

N/A

Q 7.4.3 Procedure: *What procedural issues have you experienced in relation to ADR for SEP disputes? What procedural features are particularly important for resolving SEP disputes? What degree of procedural discretion should be left to the arbitrator? Should there be an appeals procedure and if so, in what form?*

N/A

Q 7.4.4 Timeframe: *What would be a reasonable timeframe for dispute resolution mechanisms? In which cases is an accelerated procedure suitable? In what procedural and/or substantive ways should this accelerated procedure differ from the regular one?*

N/A

Q 7.4.5 Transparency: *Should the outcomes of ADR be made public in order to achieve transparency? If only partially, which part? And in what form?*

N/A

Q 7.4.6 Forms of ADR: *Are there forms of decision making by the arbitrator that you consider particularly suitable for SEP disputes? If so, in what situations and why? Is the concept of baseball arbitration, where the arbitrator resolves the dispute by choosing either the offer of the patent holder or the offer of the adopter, a practical form to settle SEP disputes?*

N/A

8. How can holders of standard essential patents effectively protect themselves against adopters who refuse to pay royalties or unreasonably delay such payment? How can it be ensured that injunctions based on standard essential patents are not used to (a) either exclude companies from implementing a standard or (b) to extract unreasonable, unfair or discriminatory royalties?

Q 8.1 Defences for patent holder: *What needs to be done to ensure that holders of standard essential patents have effective means of obtaining appropriate remuneration for their patents and to defend themselves against adopters who are unwilling to pay royalties or who delay payment of such royalties? What can standard setting organizations do in this regard?*

An injunction (or an exclusion order) is a legal tool which should be generally available only if:

- a patent holder will be irreparably harmed if the injunction is not issued;
- The threatened harm to the patent holder outweighs the harm the injunction may inflict on the prospective licensee; and
- The injunction will serve the public interest.

Since, due to the FRAND commitment, the patent holder has already stated that monetary relief is acceptable, then no harm appears to be irreparable and injunctions must not be available except in very few cases, e.g. if the prospective licensee is not subject to the jurisdiction of a court or it is in bankruptcy. Any court(s) or jointly agreed arbitration shall be in the position to adjudicate an appropriate monetary RAND compensation and, order its payment, for the use of valid, enforceable and infringed SEPs for implementing the standard. Any monetary compensation shall accrue any past damages and any eventual further damages suffered by the patent holder due to delays in any payment. Thus, use of injunctions in the context of SEP will be inappropriate not only in the case of Non-Practicing Entities, but also in the case of practicing Entities.

Q 8.2 Protection against abuses: *How can it be ensured (at the same time) that injunctions based on standard essential patents are not abused to either exclude companies from implementing a standard or to extract unfair, unreasonable or discriminatory royalties from them?*

If a patent holder has committed to license such patents on FRAND terms, it should be – in most circumstances – limited to monetary relief for infringements. Then injunctions should be available only if the prospective licensee (a) is not subject to the jurisdiction of any court(s) with the power to make a final adjudication, and will not voluntarily submit to a binding court or arbitration process to reach a final adjudication, or (b) is in bankruptcy and lacks the assets to accept a FRAND offer. In no other cases injunctions should be available.

Q 8.3 Prevalence of injunctions: *According to your experience, in which fields of standardization and in which situations are/were injunctions based on standard essential patents threatened and/or actually sought? What are/were the consequences? Please be as specific as possible.*

Main fields of standardizations subjects to injunctions include WiFi, mobile telecommunication and codecs. Consequences have been allowing patent holders to maintain high costs for acquiring licenses under SEPs for implementing the standards. For example in the mobile telecommunication space customer costs to switch among different telecom carriers, or among handheld manufacturers have decreased substantially (or offered more features for similar price), while costs for acquiring SEP licenses did not experienced any substantial reduction. This also meant that if the bill-of-material for handheld devices is examined the cost of SEP licenses required have increased relatively to the cost of required components.

Q 8.4 Consequences of banning injunctions: *Are you aware of national jurisdictions that have banned injunctions based on standard essential patents or that have restricted injunctions even against unwilling adopters (court cases or legislative changes)? Did this impact on the licensing negotiations, on the royalty rates and/or on the risk of getting no remuneration at all? How did patent holders reacted in these jurisdictions?*

In the US, a strong limitation in the availability of injunctions (see policy paper <http://www.justice.gov/atr/public/guidelines/290994.pdf>) allowed prospective licensee to negotiate more effectively, without any threat of injunction, and in some cases to get a court to assess the fairness and reasonableness of the offered license, in compliance with a FRAND commitment. The resulting court decisions set FRAND royalties substantially cheaper than the offered rates.

Q 8.5 Awareness among stakeholders: *In your experience, is there sufficient awareness among standardization participants of the recent EC antitrust decisions cited above? What role can standard setting organizations play in ensuring awareness of these antitrust decisions? On what aspects of the issue as such would you welcome additional guidance, if any.*

N/A