



Brussels, 14 October 2014

Patents and Standards

A modern framework for standardisation involving intellectual property rights

Questionnaire

I. Formal aspects

Topic and objective

The objective of this consultation is to gather information and views on the interplay between standardisation and intellectual property rights (IPR) such as patents.

Standardisation is the voluntary process of developing technical specifications based on consensus among the interested parties. Standard setting takes place in the European and International Standardisation Organizations (ETSI, CEN, CENELEC, ITU, ISO, IEC) but also in other organizations and fora or consortia on national, European or international level. Many standards comprise technologies that are patent-protected. Public authorities and the standardisation community have developed rules and practices to ensure the efficient licensing of these standard-related patents.

The purpose of the present consultation is to allow stakeholders interested in standardisation involving patents, to bring to the Commission's attention their views on

- how the current framework governing standardisation involving patents performs and on
- how it should evolve to ensure that standardization remains efficient and adapted to the fast-changing economic and technological environment.

The European Commission has the task of ensuring that the European Union's internal market functions efficiently. Therefore harmonisation standards are particularly important for the EU. Furthermore, an efficiently performing standardization system is also crucial for the EU's objectives in the areas of industrial policy, innovation, services and technological development.

Target group(s)

Companies of all sizes, organizations, public authorities, citizens and any other interested stakeholders are welcome to contribute to this consultation.

We particularly encourage those having direct experience with standardisation involving intellectual property rights to share with us their experiences and insights. This includes those currently active in

standardisation activities or planning to become active, as well as those who use standards without taking part in their formulation.

We also encourage participation of those having direct experience with

- patent transfers
- patent pools and other types of patent market intermediation
- patent dispute resolution (Courts, ADR service providers, users of ADR services etc.).

Period of consultation

The consultation is open from 14 October 2014 to 31 January 2015.

Study on "Patents and Standards"

In 2013 DG Enterprise and Industry commissioned a fact-finding study on the issue of patents and standards. This fact-finding study analyses the rules and practices developed to ensure efficient licensing of standard-related patents. It also covers barriers to efficient licensing and ideas discussed among stakeholders for dealing with these barriers.

The study can be found here:

http://ec.europa.eu/enterprise/policies/industrial-competitiveness/industrial-policy/intellectual-property-rights/patents-standards/index_en.htm

The study is useful background reading for this public consultation. The questionnaire is stand-alone and can be answered without having read the study. We encourage you to structure your reply along the modules of the public consultation document (below). Where you want to comment on aspects in the study that do not directly fit to any specific part of the questionnaire, please do so in the section that is closest to the subject matter.

How to submit your contribution

Please submit your observations by sending your contribution to the following e-mail address:

ENTR-SEP@ec.europa.eu

You can submit observations on all questions in this consultation or on specific sections alone. In either case, please ensure that we know to which question your answer belongs.

Respondent profile

Please indicate clearly on your submission the following information about yourself:

- Your name or the name of the submitting organization
- Type of respondent (enterprise, association, citizen, public authority, judge/law firm, other)
- Country of residence or location of headquarters
- Your contact details including an e-mail address

In case you reply as an association, please also:

- Indicate whether you are registered in the EU Transparency Register (see below)
- State clearly whom you represent (see below)

In case you reply as an enterprise, please also indicate:

- Your main field of business activity and the field of activity related to the consultation's topic (if not identical to the overall business activity)
- Whether your enterprise can be classified as a "small or medium sized enterprise" (SME) according to the EU definition¹. In case of doubt in this regard, please make a judgement call.

Submissions that are sent unanimously will not be published nor taken into account. If you include the above information but wish that your contribution is published without this information, please submit a non-confidential, anonymized version as well.

The Commission may contact you in case a clarification regarding your submission is needed. If you do not wish to be contacted, please state this clearly in your reply.

Transparency and registering

In the interest of transparency, organisations (including, for example, NGOs, trade associations and commercial enterprises) are invited to provide the public with relevant information about themselves by registering in the Transparency Register² and subscribing to its Code of Conduct.

- If you are a Registered Organisation, please indicate the name and address of your organisation and your Register ID number on the first page of your contribution. Your contribution will then be considered as representing the views of your organisation.
- If your organisation is not registered, you have the opportunity to register now. Please then return to this page to submit your contribution as a Registered Organisation.
- Responses from organisations that are not registered will be published separately.

The Commission asks organisations who wish to submit comments in the context of public consultations to provide the Commission and the public at large with information about whom and what they represent. If an organisation decides not to provide this information, it is the Commission's stated policy to list the contribution as part of the individual contributions. (Consultation Standards, see COM (2002) 704, and Communication on ETI Follow-up, see COM (2007) 127 of 21/03/2007).

Confidentiality and data protection

The replies submitted will be published after the end of the consultation period on:

http://ec.europa.eu/enterprise/policies/industrial-competitiveness/industrial-policy/intellectual-property-rights/patents-standards/index_en.htm

Please indicate clearly at the beginning of your reply if you do not wish your contribution to be published. If you consider that certain parts of your reply are personal data or business secrets and should not be published, please submit a confidential and a non-confidential version and mark them as such prominently at their respective starts. In this case, we will only publish the version marked as non-confidential.

Please find information on the protection of your personal data on the website indicated above.

¹ http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm

² <http://ec.europa.eu/transparencyregister/info/homePage.do>

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II. Context and key issues

Patent based standardisation

Standardisation and intellectual property rights, such as patents, are key contributors to industrial innovation and industrial competitiveness. Standards facilitate rapid diffusion of technologies and ensure interoperability and compatibility between products thus enabling innovation dissemination. Patents provide incentives for research and development and facilitate knowledge transfers. Effective standard setting and the protection of intellectual property rights are thus crucial for promoting innovation and the development of new technology areas.

Many standards comprise innovative technologies that are protected by patents. Where standards comprise patented technologies, efficient licensing is crucial for the success of the standard as well as for a fair return for innovators' efforts.

The need for a modern framework

Public authorities and the standardisation community have developed rules and practices to ensure the efficient licensing of patents on technologies that are included in standards. These rules and practices aim to give patent holders a fair return on investment in innovation effort, including research and development, and at the same time to allow all users of the standard fair access at a reasonable cost.

The framework governing standardisation involving patents needs to reflect the requirements of all stakeholders and needs to adapt to a constantly evolving technological and business context. The Commission is therefore closely following the ongoing debate on the use and role of IPR in standards and is in the process of assessing whether it needs to address the issue in a dedicated initiative³.

Key issues

The present consultation focuses on eight key issues concerning standardisation involving patents. You are kindly invited to structure your submission around these eight issues.

You are free to choose which issue you want to comment upon as well as the degree of detail you want to express for each of the chosen issue. Wherever you would like to bring detailed observations to the Commission's attention on one or more of these issue, you are invited to draw upon the more detailed questions found further below (Section III).

The eight key issues for which we are seeking your feedback are:

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?
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?

³ See the Commission's 2014 Communication on Industrial policy "[For a European Industrial Renaissance](#)".

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?
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?
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?
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?
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?
8. How can holders of standard essential patents **effectively protect** themselves against implementers 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?

Please note that Issue 1 asks for the prevalence of standardisation involving patents (as compared to standardisation where patents do not play a role). Issues 2-8 above apply only to those areas where standards include patented technologies. Please also note that Issue 2 is more general, while Issues 3-8 concern more detailed elements of standardisation involving patents.

Quantitative answers

We are particularly interested in learning more about the practicalities involved in complying with the current set of rules and practices on standardization involving patents as well as in the quantitative impacts of possible changes.

For this reason, many of the more detailed questions below concern the costs and benefits of specific developments and/or changes to the current framework. When replying to these questions please provide as much detail as possible. We encourage you to provide quantitative estimates, even where this is only possible in the form of a range. Please provide an explanation of such estimates for example by splitting up overall estimates into person-hours, hourly wage of the person performing a task, etc.. Where you consider that your estimate depends on certain factors, please state these factors.

In our analysis of the submissions to this consultation we will pay particular attention to these fully explained quantitative estimates.

Definitions for the purpose of this consultation

For the purpose of this consultation, and without prejudice to the use of these terms in other contexts, the following definitions apply:

- **Standardisation:** Standardisation is the voluntary process of developing technical specifications based on consensus among all interested parties, such as industry (including Small and Medium-sized Enterprises), consumers, trade unions, environmental Non-Governmental Organisations, public authorities, etc.).
- **Standard setting organizations (SSOs):** Standard setting organizations are entities in which standardisation work takes place. This includes the formal European and International Standardisation Organizations (ETSI, CEN, CENELEC, ITU, ISO, IEC) but also other organizations and fora or consortia on national, European or international level.
- **Standards/Standardisation involving patents:** Standardisation involves patents where the standard comprises patented technologies. This is often the case for standards that ensure interoperability between products, where the interoperability is resulting from a patented technology.
- **Technologically neutral standards:** A technologically neutral standard is a standard that does not explicitly comprise specific technologies. Examples of such standards are standards that set abstract performance criteria, without specifying how these should be attained. Technologically neutral standards are not the focus of the present consultation and are covered only in Questions 1.3.1 and 1.3.2.
- **Standard essential patents (SEPs):** Standard essential patents are patents on technologies that are comprised in a standard. This essentiality results from the fact that products implementing the standard will infringe the respective patent(s). The notion of "standard essentiality" is objective and independent of whether a patent has been declared, or not, to the respective standard setting organization.
- **FRAND/RAND:** The abbreviation "FRAND" stands for **f**air, **r**easonable and **n**on-**d**iscriminatory. FRAND is a concept that is used by many standard setting organizations to specify the terms under which the holders of standard essential patents commit to licence these patents. Other standard setting organizations use the term "RAND", without a difference on substance necessarily intended.
- **Portfolio license:** Portfolio licenses cover groups of patents owned by the licensor. These groups of patents can be subsets of the patent holder's total patent holdings (e.g. all patents related to a specific product) but could also cover all patents held by the licensor, sometimes also including future patents.
- **Cross-licensing:** Cross licensing describes a licensing arrangement where two entities grant each other licenses to their respective patents. For each of the two entities the licences it obtains are (part of) the compensation for the licences it grants.
- **Patent pools:** For the purpose of this public consultation the term "patent pool" is defined as an agreement by which two or more holders of patents agree to licence these patents under a joint licence to each other and/or third parties.

- **Patent thickets:** A patent thicket is a situation where a multitude of patents bear on a specific product and where these patents are held by different entities. Any company wishing to produce or market the product must thus obtain licences from a multitude of patent holders.
- **Royalty stacking:** For the purpose of this public consultation, the term "royalty stacking" describes a situation where patents bearing on the same standard (or product) are held by different entities and each of these entities requests royalty payments. The royalty burden on the company making the (standard-compliant) product is thus the sum (or "stack") of these royalty demands.
- **Alternative dispute resolution (ADR):** The term "alternative dispute resolution (ADR)" should be understood as comprising all forms of dispute resolution other than Court litigation. The most common forms are mediation and arbitration. Mediation describes a process by which the parties to a dispute ask a third party to facilitate negotiations between them. Arbitration describes a process by which the parties to a dispute agree to mandate a third party to decide on the dispute.

III. More detailed questions

Key issues 1 and 2 – Scope of standardisation involving patents; best rules and practices

Objective of this section and definitions

This section of the consultation relates to the scope of standardisation involving patents and to best rules and practices. We are particularly interested in:

- The technological/product areas where standardisation comprises patented technologies;
- The trends concerning standardisation involving patents;
- The decision whether a standard should include (or not?) a patented technology;
- Links between patents and standardization other than the direct incorporation of patented technologies into a standard;
- Best rules and practices available across the standardization domain.

You can find background information on trends in standardization involving patents in chapter 3 of the Study on "Patents and Standards" (link see above; hereafter referred as "the Study").

Questions on the prevalence and effect of standardisation involving patents

The first set of questions aims at identifying the prevalence of standardisation involving patents. When answering these questions, please specify the technological/business/product fields with the appropriate degree of detail.

Q 1.1.1 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?

This will happen in fields where patentable solutions exist (or are likely to be developed to solve significant interoperability problems, as may arise in e.g. an Internet of Things or Internet of Everything context) that (a) add substantial value to the standard versus alternative solutions; and (b) the use of which can be demonstrated.

(a) Can happen because of the superior performance of a technology; or, once a base standard has settled, because implementers of add-on features to the standard enjoy the network effect of the established eco-system, market acceptance and installed base.

(b) is less often the case where plain ICT solutions are at stake (data formats, communication protocols, APIs) unless they are directly linked with (for example) advanced algorithms.

For interoperability standards, we see the necessary conditions in specifications for ...:

- interfaces involving physical elements, where innovative use is made of physical phenomena.
- the former line includes the so-called PHY and MAC layers for communication networks (radio level and directly related communication protocol features)
- telecommunication: radio technology as well as smart algorithms for localisation, roaming etc. are in play and a strong eco-system / network effect demands compliance to follow-up features in the standards

- data security / integrity / authenticity solutions (including digital rights management): data formats go hand in hand with advanced algorithms and cryptographic methods
- codecs (data compression for, e.g. audio / video): data formats go hand in hand with advanced algorithms

Q 1.1.2 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?

The main trends we observe in this respect are:

- Ever more players understand the relationships between innovation, patents and standards and aim to take part in an integrated manner to optimize business results;
- Innovation nowadays produces solutions that thrive on a multitude of technologies;
- Standards are increasingly important to create and grow mass markets and the eco-systems that can serve them (because of the former point and the integral, complex nature of solutions);
- Know-how represents an ever increasing part of the value of products (in case of software or content, this is at or near 100%; in case of a smartphone for example, it is more subjective to tell but since the function as well as production are enabled entirely by know-how, it is arguable that it is far over 50% as well)
- Due to the former 4 points, products have an increasing “Bill of Licenses”, in absolute and relative terms, which is in the market subject to bargaining down the price of intellectual property (IP) due to what is essentially a free rider problem (once know-how exists, legally enforceable IP rights are the only thing keeping it from being a public commodity)
- This in turn leads to a situation that ever more players are in a business model that produces ever smaller returns, as decreasing IP license revenues need to be distributed over an increasing number of beneficiaries, the sheer size of consumer markets being the only compensating factor.
- The increasing “Bill of Licenses” leads to higher transaction costs (complexity and throughput time to negotiate licenses with all IP owners), which patent pools try to solve; however patent pools have their own challenges in getting accepted and implemented by IP owners
- Historically, patent portfolios were often proportionate to business dominance of their owners, which sustained a natural balance of IP value related power in the market. There is greater instability in the digital age (winner takes all). Also, business models and players emerged that aim to exploit IP by mere implementation without contributing technology innovations, or others that even solely focus on trading IP (so-called non practicing entities). The disturbance of the equilibrium provoked very substantial IP value battles between some players in some markets. While these battles form an exception rather than a structural shortcoming of the system, they are highly visible and influential to the economy and citizens, for which reason they give rise to debates about how appropriate the patents and standards system is. But as said, this is not a structural shortcoming of the patent system, but a consequence of disruptive innovation with high commercial success for implementers of standards for which the technology contributors need to be fairly compensated.

- Some patent holders have multiplied the number of their patent rights by filing many divisional applications from a single basic patent application. As this is not reflecting their technical contribution to the standard, the opportunities to obtain patents on divisionals should be limited by better checking for double patenting issues. Also, having divisionals should not automatically result in a higher share in a patent pool's royalty income, unless the divisionals protect different inventions that cannot be combined into one patent because of a lack of unity of invention as defined in the patent law.

Q 1.1.3 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?

The trend towards more complex fruits of innovation, namely integral systems in which many technologies interoperate, calls for system standards (system performance, integrity, regulations and conformity assessment; system level interoperability suites) which are inherently far more comprehensive and complex than the underlying so-called base standards (which focus on single technologies, components or products). Through these system standards the base standards of many domains get related in very dense and challenging networks of mutually imposed boundary conditions. This in turn demands that standards development organizations come out of their silos and work together, sharing the same networks of experts.

Q 1.1.4 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?

In the domain types provided in 1.1.1 above, innovation, patents and standards are intimately intertwined. Neither can thrive without the others. Innovation will only be deployed in the market when standards reduce the investment uncertainties at both the demand and supply sides and create the conditions for massive scale effects; technology developers will only contribute the fruits of their innovations to those standards if they can get a fair return, as legally guaranteed by the IP rights system. Implementers can only implement what was invented and is deployable in the market.

Technology neutral ("black box") standardization works fine in many areas (such as safety and essential performance which are often subject to regulation), but is simply not a workable alternative where a mass market and eco-system must be facilitated that hinge on "white box" compatibility and interoperability between system elements. For example two appliances with WiFi work together solely because they use the exact same technology inside, and there is no technology neutral way to achieve the same thing.

In the "white box" situation, "excluding those elements that are covered by patents" would leave the standardizers and implementers either without any technology options at all, or highly likely with non-state-of-the-art solutions. The economic downside of this would by far exceed the few negative side effects of the IP rights regime as we know it, as the world would use less efficient and effective technologies than the best in class available, and innovation would be very substantially reduced.

Moreover, innovators would not risk investment in new markets and technologies if the follower companies were able to simply copy the innovation for free and compete without having to make any return on such an R&D investment.

Questions on the decision to include patented technologies into a standard

The next questions relate to cases where there is a choice on whether or not to base a standard on a patented technology. This can either be the choice to keep the respective standard free of any patented technologies or the choice to include an additional patent-protected technology into a standard that will in any case comprise patent-protected technologies. You can find information as regards the decision to include a patented technology into a standard in sub-section 5.7 of the Study.

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.

The question is too generic and not very meaningful. There are very good reasons why standards should be using best-in-class technologies, and because those are normally patented, there is no doubt that “white box” standards (necessity see 1.1.4) must include many patented technologies.

The real issue is which ones to select, as very substantial economic interests are associated with that. This is subject to competition between technology contributors (in the context of the pre-competitive standardization process), and naturally they all use various arguments and approaches towards the standards setting communities to get their share of the outcome.

This process is a different way of competing in that it is a contest within the supply side community rather than the demand side picking the supply side winners. However with today’s great variety of supply side stakeholders in very diverse eco-systems, it is a highly acceptable form of competition. While the process may not be perfect, any attempt to regulate it or provide arbitration from outside severely risks to make it worse instead of better, as this would provoke other, more opaque tactics to influence the same decisions, which would easily be at odds with fair competition, or cause drop-out of relevant technology providers that would rather go for a proprietary solution, or simply are not willing to risk investing in such an environment.

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?

The question is too generic and not very meaningful as phrased, as the steps being asked for are inherent to the standardization process and can by definition only be performed in the stakeholders community itself, which is best informed about all the implications of these decisions. Each of these stakeholders will weigh its own interests versus the shared interests of creating a viable market and eco-system, which is a condition for each of them to get economic returns at all.

This is a highly complex multi-party negotiation system in which asymmetries of information, subjective judgements of market opportunities and objective, publicly available and reproducible technical and business facts and analyses all come together. It is practically impossible to formalize this process or make it more explicit in any meaningful manner e.g. by creating lists of criteria. The only meaningful intervention is to require a proportionate and effective regime of openness /

transparency and up-front commitment to fair license policy and conduct, as de-facto practiced by the large majority of standards development organizations today.

The answers to these questions are indeed the very essence of what takes place routinely in many standards development organizations of all sorts. See further the last part under 1.2.1.

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?

See 1.2.2. The entity that suggests the patented technology for inclusion is indeed, in today's practice, de-facto the first and only to gather support for that suggestion, and in the end this will only succeed (to the extent necessary to get the technology included in the standard) if there is more decision power among the stakeholders who see the benefit greater than the cost than among those who see it reversely. Therefore this actually works best in standards setting organizations that empower participants somehow in proportion to their stakeholderhip, in a fair scheme.

Due to the tremendous complexity both at the technical and the business sides, there is simply no such thing as an objective, rational decision process for these matters.

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?

We are not specifically aware of such legal disputes.

However disputes on standards setting do take place regularly. Standards setting organizations therefore have thoroughly defined processes, with equally well defined formal appeal options for those who feel the process was not properly conducted.

As all participants understand and by participating accept that standardization outcomes decided by the community as per the agreed process are not disputable, the appeal normally focusses on the process. However it also happens that participants continue to debate the content in sustained attempts to get other outcomes.

Appeals happen as frequently for standards without patents that have for instance regulatory implications or expected substantial impact on market demand as with standards involving patents.

Questions on other links between standards and patent-protected technologies

The main focus of this public consultation is on the situation where a standard directly and explicitly includes a patent-protected technology.

However, two other links between patents and standards are also frequently discussed in the standardization community:

First, the situation where a standard does not refer to any particular patented technology (in other words it is technologically neutral) but where the standard can in practice only be implemented by using one or more technologies that are patent-protected.

Second, the situation where a product implements a standard but also includes patent-protected technologies which cumulatively (1) cannot be designed around technically and (2) are so important to the customer that the product cannot be sold without the patent-protected technology.

The following questions aim at gathering your views on these two situations. It should be noted that both situations are structurally different from the situation otherwise covered in this public consultation. The patent holder will regularly not have consented to the link between the standard and its patented technology and will also not have given any licensing commitment. We therefore also ask on the patent holder's defences in this situation.

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?

We are unaware of specific examples of either situation.

However we believe that if the market demands something so strongly that it fits in either situation, whether related to a standard or not (and especially given the lack of involvement of the patent owner in creating a standard, as highlighted in the question), and there is unique IP that is able to support fulfilment of that demand, it is only reasonable that the patent owner has an entitlement to a reasonable share of the economic returns.

This is a natural consequence of the IP rights system which protects / rewards innovation in order to foster it, and has proven economically efficient in doing so, for over a century.

Further, what is practically possible and can de-facto be sold is never an absolute but depends on the next best available alternative. Should the patent owner demand higher returns than the perceived value in the market, alternatives will soon appear to be very feasible. This will in most cases lead to an economically efficient arrangement in the market.

Of course competitive disadvantages may arise in exceptional cases, e.g. when the patent owner only asserts the patent once deep investments have been made by third parties (whether as a deliberate tactic or not). However this is (in the absence of orchestration through involvement in the standard setting) not more or less acceptable than other offensive competitive tactics. Neither is it any different from other situations in which deep investments get affected by poorly predictable external circumstances. Given the low frequency of occurrence it must thus be considered as one of the many risks of doing business: investors have a duty to manage all risks to their business, including those that relate to IP rights held by third parties.

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?

We are unaware of specific occurrences but the risk is surely very real, as implementers always seek to exploit loopholes in order to freely use IP owned by third parties. This is more likely to be the case in standard setting with (near) Royalty-Free policies because technology providers might be put under pressure by implementers to contribute their innovations for no return.

The risk especially sticks to poorly designed IP-and-standards regimes, for which the devil is very much in the details. All too easily such regimes enable artificial construction of implied commitments by patent owners for FRAND, or even Royalty-Free licensing. At the moment regimes are in discussion in certain countries that would create such commitments even for non-participants to the

standard development. This would be an open invitation for implementers to develop standards that turn IP they wish to use into Standard Essential Patents (SEPs), thus making way for free use. In doing so, such rules would essentially turn the IP rights protection void and ruin the entire patents system, and prosperous innovation with it.

Therefore it is essential that such regimes are well balanced as to the rights of technology creators versus those of implementers, and leave no room for any party to artificially reduce the rights of third parties by gaming the process. Any such regime shall leave the choice to contribute a patent to a standard, while making a FRAND licensing commitment, entirely with the patent owner. It is then for the standards setting community to include the technology in the standard or not. In the rare event that a patent becomes a SEP without the owner being involved or even aware, this should never lead to reduction of rights of the patent owner, as this would undermine the patent system altogether. It is for the standards setting community to avoid this and manage the associated risks.

Questions on "best rules and practices"

The following questions allow you to submit your views on rules and practices that you find particularly interesting or useful. If you intend to answer the more detailed questions below (Key issues 3-8), please use Questions 2.1.1-2.1.3 to submit observations that you don't cover when answering the more detailed questions. Question 2.1.3 is targeted at stakeholders who have experience with several standard setting organizations.

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?

There are many standards setting organizations of various kinds, including the broad ones like ISO, IEC and ETSI with a country representation or mixed membership model, and industry consortia with direct participation, which are normally more focussed (together they target all sorts of market domains, each with their own specific dynamics).

Consequently there is a variety of standards-and-patent regimes, and this is not a static landscape but subject to on-going evolution to ever higher levels of sophistication. This results from the fact that some parties seek to exploit the shortcomings, which are thus uncovered and in response get repaired. Today, there are hardly any standards setting organizations that do not have a standards-and-patent regime with clearly stated objectives, rationale and rules.

There is considerable cross-fertilization between standards setting organizations in this process, as the experts of many companies take part in multiple such organizations and all membership agreements are reviewed by the same legal experts in those companies.

Naturally some organizations where the highest stakes are at play in this respect are front runners, such as ETSI and ITU. Also, there are market domain bound varieties, such as voluntarily decided preference for RAND-zero regimes in certain ICT orientated consortia where others rightfully

consider that limiting the freedom of patent owners to demand a license fee under FRAND conditions would do more harm than good in their domain.

We believe that all these regimes are appropriate in their own context albeit that some are more mature and better enforced than others. We also believe that the natural process of convergence and evolution outlined here above is the best way to sustainably address the patents-and-standards issues in the best possible way.

We further believe that the incidents that happen, including some recent highly visible battles on very large economic interests, are not more than exceptions to the fact that these regimes are largely working very well. No system is perfect and their use evolves, so there will always be such exceptions. As outlined above these exceptions are also necessary to fuel evolution of the regimes in the right direction.

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)?

See previous answer for the generics.

It is good that some attention points are being addressed in today's discussions, such as the issue of transfer of IP rights under FRAND commitments, and a more precise definition for rights of injunctive relief towards unwilling licensees. As for all other aspects, the essence is to define a balanced regime that does not put undue risks on any party (e.g. on the seller of IP who properly transferred FRAND commitments to a buyer, when this buyer later fails to deliver on these commitments) and does not allow any party to effectively exploit the other (such as patent holdup by patent owner; or giving endless options for unwilling licensees to delay negotiations, create "reverse patent holdup", and thus compete unfairly in a market where others do pay fair licenses).

One emerging trend of negative consequence is the push by some implementers to require that the licensed royalty base be limited to the smallest identifiable unit practicing the invention. This one-size-fits-all artificial constraint fails to take into account the host of factors that an implementer benefits from the use of an invention. For example, the physical difference between an Apple iPhone and an iTouch product may be only a telecommunications chip that costs less than 50 euros that allows the iPhone access to cellular networks. However, the benefit to the implementer is worth much more to the overall product, as evidenced by the 300 euro price difference between a typical iPhone and an iTouch product. Thus, arbitrarily limiting the royalty base to the cost of the telecommunications chip in no way reflects the benefit that the telecommunications IP brings to the implementer. In conclusion, the complexity of factors that goes into a FRAND license requires that it be left to the parties to negotiate bilaterally, rather than require one-size-fits-all artificial constraints that will only destroy the balance between implementers and patent holders that is currently maintained by the free market.

We welcome patent quality initiatives by patent offices as they are, both in context of standards and in their own right, necessary to avoid flooding the patent system: this would not only drive up cost and slow down innovation but also would create a risk for the entire patent system to fall apart.

In context of standards setting, some parties have been seeking to draw a large share of the license fees towards them by vesting large amounts of often low quality patents and divisionals /

continuations. While they normally do not get away with this in licensing negotiations or patent pool formation because third parties will challenge the value of the patents, such tactics do disturb the effectiveness and efficiency of the entire system and therefore deserve to be discouraged.

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?

See 2.2.1 for the generics.

Yes there are differences both in regimes and in their enforcement. We observe that the stricter regimes and enforcement are found where the stakes are highest and vice versa. Therefore the variety does not in practice lead to problems, and is in a way efficient.

Because knowing and living up to multiple regimes adds complexity to the management of standardization by companies, it would be interesting to look into convergence into a lower number of varieties. This could for instance be achieved through voluntary or regulatory guidance. Given the fact that most standard setting organizations are international, the regulatory route could become quite complex so the voluntary option seems more promising. As stated under 2.2.1 a fair amount of natural convergence is de-facto taking place already.

Key issue 3 – Patent transparency

Objective of this section and definitions

This section of the consultation relates to transparency regarding standard essential patents.

For the purpose of this consultation, **transparency** should be understood as relating to the ease with which interested parties can establish the patent situation relevant to an area of standardisation. This would cover the existence of particular patents, their scope, ownership, validity, enforceability, and essentiality for a standard. Transparency may be relevant during the discussions leading up to the formal decision on a standard (**ex ante**) but also afterwards when standard-compliant products are marketed (**ex post**).

The efforts of standard setting organizations to achieve patent transparency are based on obligations of their members to declare patents to the respective standard setting organization which then makes these declarations available to the other members or to the public. However, other types of stakeholders such as patent offices, also contribute to patent transparency.

Accordingly, we are particularly interested in:

- The relevance of patent transparency in practice and the different areas or aspects where more patent transparency would be beneficial;
- The different forms of patent declaration obligations and their respective costs and benefits;
- The various ways of handling patent declarations in practice by standard setting organizations;
- Measures to increase patent transparency beyond the system of patent declarations.

You can find background information on patent transparency in Chapters 4.2 and 5.2 of the Study.

Respondent profile with regard to this section

If you wish to reply to this section of the public consultation, please ensure that you mention in your submission any special type of experience you have regarding patent transparency and/or experience with the patent declaration system used in many standard setting organizations (e.g. if you declare numerous patents; if you are a provider of services to increase patent transparency).

If you are both a holder of standard essential patents as well as an implementer of standards including patented technologies, please specify, where pertinent, from which of those perspectives you are answering a particular question.

Questions on the relevance of patent transparency

The first set of questions concerns your views on the relevance and level of patent transparency in the fields of standardisation of interest to you. The questions also aim at identifying the causes of a possible lack of transparency as well as the consequences thereof.

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.

The question is too generic. We take part in many standards organizations, both as implementer and as technology contributor, and the situation as to this question is very diverse. It is impossible to elaborate on even only a few real life examples in the context of this reply to the questionnaire, not in the least because of confidentiality rules in standardization work.

As a general rule of thumb however we see that where the patents-and-standards stakes are high, all players including ourselves are deeply aware of what exactly is happening and what is at stake. Where the interests are less or the relation between standards and patents is rather indirect, the situation is normally also much less clear.

A further observation is that it takes effort and experts to be informed. Even if all information is on the table, it takes patents and technology experts to analyse and interpret it. Therefore standardization participants enjoy transparency in proportion to their investment. In lack of unlimited resources (not only money wise but also expertise wise) and given the dynamics and time pressure that often applies, this is normally the limiting factor as to informed decision making. Also, the better a company is at patent search and analysis (for which there are ever more sophisticated tools), the better it can extract from publicly available information what it needs to now in this context.

A final observation is that the same limitations apply to providing transparency on own patents to others (the standard setting organization and its members). For instance, luckily most standard setting organizations do not demand a comprehensive search when reporting own SEPs. While laymen might expect companies to be fully aware of their own patent portfolios, performing such a search to provide a well scoped list of SEPs (no irrelevant patent listed but also no real SEP missing) is a very substantial task involving 5-10 man days of expert work, hence 5-10 thousands of euros (per search: if every standards organisation would require it twice a year, and the company takes part in 20 of them – in fact very modest numbers – this already amounts to a quarter to half a million euros per annum per company, only for patent searches). Again, apart from the money limitation there is the limit of expert availability. For this reason such obligation to perform searches would not be

implementable in practice by any player. Therefore it is a serious reason for us to reconsider participation in such an organization, whenever we run into it.

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?

See 3.1.1.

There are, unfortunately, a few well-known cases where a standards setting community has de-facto been misinformed about the standards situation which later resulted in fierce battles on the competitive distortions thus created.

We consider these occurrences exceptions to the rule that the system works well in the majority of the cases. We also observe that a player can do this only once, as it is considered as acting in bad faith (if the situation happens without being deliberately orchestrated, a good faith player will not seek to exploit it afterwards but act as though a FRAND commitment had been entered into) and all others will be on the alert next time. In other words, the concept of reputation substantially mitigates the risk related to this phenomenon. In some of the extreme cases, competition authorities such as the US FTC have stepped in to right the wrongs that occurred.

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?

We consider this competitively sensitive information and hence do not want to go deeply into it.

We can say however that both licensing-in and licensing-out are being managed as explicit programs with clear plans and solid analysis of the market situation. Both processes involve substantial information finding, analysis and negotiations, which represent very substantial investments. Depending on the situation this runs from a few tens of thousands to several hundreds of thousands of euros.

We have also been active in the creation of patent pools for certain standards; these ventures involve multi-party negotiations, investments and are even more substantial efforts. Patent pools are a good arrangement to initiate the licensing of the relevant patents because the pools are publicly known and both the implementers can obtain FRAND licenses, while the patent holders have an efficient mechanism to provide FRAND licenses. Patent pools are a means of efficiently identifying the relevant patents since only patents that have been found essential by an independent third party evaluator are part of the licensed portfolio. The patent pools identify the patent holders and the potential licensees as part of the normal course of business, although not all patent holders are listed in the pools.

In general, there is some time gap between setting the standard and use of the standard in the market.

Finally, sustaining and expanding a global licensing-out program involves hard work, with sometimes tens of employees fully dedicated to one such program for a duration of many years.

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.

In Europe, we have a problem as regards ownership registration in that the European Patent Office (EPO) only registers transfers up till grant of the European patent; thereafter, multiple national patent offices are in charge. To increase transparency, the Contracting States to the European Patent Convention should allow the EPO to act as a one-stop-shop hub for ownership registrations also after the grant of the European patent.

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.

As stated under 3.1.1, there is no realistic option to enjoy full transparency of the patent situation for any given product in one's own product portfolio, whether related to standards or not. Therefore companies in practice rely on a combination of (a) assessing the most substantial risks in a "headlines" fashion (through search and analysis) before developing products / bringing them to market, and (b) owning a portfolio of patents that can be used to balance the rights of third parties in most cases that may come to the table. Both are helped by the fact that a company normally knows, as a regular business feature, the technology and patents landscape in its fields of competition to a reasonable depth and coverage, on an on-going basis.

As stated in 1.1.2 (last item), some players do not bring products to market but only trade IP; mitigation method (b) is not effective versus such parties. This increases the risk for products / services based players (on the other hand it creates a more fluent market for IPR's which creates a dynamic climate of open innovation and is one way for technology contributors to get a decent return on their investments, in particular those that do not have their own licensing-out capability (such as SMEs and universities).).

In general, we are not aware of any industry that was hampered by insufficient patent transparency in bringing new products to the market.

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 implementers asking for licences)? What costs are involved in dealing with situations of low patent transparency?

We consider this competitively sensitive information and hence do not want to go deeply into it.

We observe that most companies of whom we know their behaviour at this point tailor their approach to the magnitude of the risk as well as to the overall power balance between themselves and the patent holders – this in turn is a function of relative power of patent portfolio's but also of supplier-client and partnering relationships, being competitors or not, etcetera.

Questions on the content of the declaration obligation

The second set of questions concerns the obligation imposed by many standard setting organizations on their members to formally declare the patents relevant for the respective standardisation work. We are interested in hearing your views on key aspects of such declaration obligations.

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)?

This depends on the company's own processes and if the main concern is risking reduced value of patent rights or risking having to pay licenses to third parties. Therefore a generic answer is not possible, not even for any given company (as the second criterion may vary across standard development efforts).

Time or external event triggered obligations have the benefit of not easily becoming overlooked by self and third parties. So there is more of a guarantee that they actually do happen.

Own contribution triggered obligations do not have that feature, they depend more on the process management of the patent owner and if they do not happen, there is little others can do about it later on, though many regimes impose an automatic FRAND commitment on undeclared SEPs (but that does not resolve the ex ante non-transparency).

It is very important, as stated before, that the obligations are proportionate (that is, implementable with reasonable effort in proportion to the standards setting work itself) and consequences of non-compliance are balanced (that is, no openings to game the system to artificially construct FRAND obligations behind the back of the patent owner).

In view thereof, we believe that patent declaration obligations should only arise for standard setting activities in which a company actively participates, not for other standards that happen to be developed within the same Standard Setting Organisation.

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)?

Active participants should be obliged to report their SEPs for those standards they co-work on, as they are aware of them. This is the most common rule. Parties should never be obliged to report their SEPs for those standards they do NOT co-work on, whether as non-member of the organization or as a member active only in other standards setting projects.

Degree of participation would be a hard to define and handle concept, making deployment overly complex. The criterion whether or not a participant has actively contributed the technology in question is tricky as it could open ways to game the system (e.g. have a third party propose the technology).

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?

The experts involved in the technology development and standard setting are involved as well as the patent expert; in case the patents regime of the standards setting organization is complex or risky, also legal experts. On the joint advice of these, mostly by a responsible middle manager, senior management responsible for IP management must approve of the declaration.

The concrete steps are awareness of when the obligation is due; analysis of all relevant information in the situation at that time; decision what must / must not be declared and what commitments are given (in case there are options to choose from); and then approval.

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.

We normally rely on the knowledge of the involved experts as per 3.2.3. In cases where we can, the costs are quite limited – up to a few man days or a few thousands of euros maximum. See also 3.1.1, last part: performing searches can be tremendously expensive. We don't do that without obligation, unless we have a very good reason for it ourselves. We even re-consider entering or sustaining membership of a standard setting organization when search obligations are required.

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.

In general this provides enough transparency, as one can tell from the development effort by players how much they are investing in portfolio of SEPs for the standard, and this is normally proportionate to the contributions made to the standard; also these contributions give good clues about what patents third parties are probably vesting.

In the end it is normally the relative strength of these portfolios that counts, more than the number of patents or the exact details of each and every patent. This is especially true for the majority of patents that add certain features or optimizations to the standards but do not affect their foundation.

Of course there are exceptions to this, and sometimes knowing the details is of utmost importance. The most important are the so-called base patents on which the entire technology and standards are built; however these are normally created and well known before the standards setting is started.

The above holds for consortia where the standards-and-patents issue is prominently present. In other organizations, such as IEC or ISO, this is seldom the case. In such situations actual declarations are highly important to signal there is a patent in play at all, because participants could otherwise easily be caught by surprise. Generic blanket declarations would merely constitute a meaningless administrative burden in such organisations, since the signalling function would immediately get diluted.

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?

There are various flavours. It all boils down to how much effort both the providers and the receivers of this information want to spend, and how to distribute the efforts between both. Proportionality is of the essence.

It must be kept in mind also that the exact relation between a standard in development and a patent in procurement is often very hard to exactly describe, because of the technical depth and the fact that both are in evolution. Stated patent claims may get rejected underway and – depending on where the patent was applied for – get re-stated in different wording to re-apply; drafts of the standard may get modified, sometimes expressly to circumvent a patent that still in procurement.

We therefore both as an implementer and as a technology developer favour a rather abstract level of information for declarations. A more detailed or elaborate level quickly gets progressively more difficult and expensive to handle, and may require continuous updating. This expert time can better be devoted to innovation, technology development and standard setting.

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?

In many regimes, failure to comply with a declaration obligation leads to a de-facto FRAND commitment for the non-declared SEP(s). We consider this a fair, effective and adequate consequence, which is also seldom debated. Such regimes are in fact equivalent to a de-facto blanket declaration for all own SEPs plus targeted declarations where more specific information is appropriate. This works well in practice.

Questions on the quality of patent declarations

The third set of questions concerns possible your experience with the patent declaration system. The transparency ensured by this declaration obligation depends on the accuracy of the information provided, both at the time of the declaration (initial accuracy) and subsequently over the lifetime of the standard.

As regards this second aspect, there are a number of events that can cause an initially correct patent declaration to become factually incorrect, such as (1) the final version of the standard is different from the draft version at the time of the declaration, (2) the patent is invalidated, (3) the scope of the granted patent differs from that of the declared patent application, (4) the ownership of patent changes.

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?

Copy from 3.2.6: the exact relation between a standard in development and a patent in procurement is often very hard to exactly describe, because of the technical depth and the fact that both are in evolution. Stated patent claims may get rejected underway and – depending on where the patent was applied for – get re-stated in different wording to re-apply; drafts of the standard may get modified, sometimes expressly to circumvent a patent that still in procurement.

We therefore both as an implementer and as a technology developer favour a rather abstract level of information for declarations.

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?

Pass.

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?

We believe that such checks by third parties would raise more issues than they would resolve.

First, standard development would become very much more expensive, which would create fierce problems for standards setting organisations' continuity and could choke this important economic activity. Second, it would prompt for complex and risky liability issues, and even open up possibilities for all sorts of undue influencing practices. Third, it is questionable if independent verification would come to better judgements than peer standard development experts.

Therefore we think this is not a good idea to further develop.

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?

Essentiality checks can best be done in the context of a patent pool discussion. When the standard and the patent applications still evolve, this does not make a lot of sense and only lead to unnecessary additional costs and effort.

Questions on the handling of declared information

The fourth set of questions concerns the practical aspects of the patent declaration system. This includes the ways that the declared information is made available to interested parties.

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?

Declarations should be freely available to members / participants (essentially the group that is obliged to make them). No more no less.

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?

Internet based access protected by access control is the state of the art and preferred way.

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?

Standards setting organisations should only set the rules and see to it that they get lived up to, not engage with the content, add own content or make judgements / qualifications. This would put them at risk of partiality and liability.

Questions on transparency improvements beyond the system of declarations

The fifth set of questions relates to possible tools to increase patent transparency other than the system of patent declarations used by standard setting organizations.

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?

None. It is part of the professional challenges to deal with the situation as it is.

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?

Yes. It would be useful (as many other public goods would be that we do not have). Patent offices could be charged with and paid for it.

Who pays is the million dollar (and yes, it would indeed be very expensive) question, to which we see no appropriate answer. We believe for this the reason the idea is not practically implementable.

Key issue 4 – Transfer of standard essential patents (SEPs)

Objective of this section and definitions

This section of the consultation addresses issues related to the transfer of standard essential patents.

Particular focus will be on situations where after such a transfer, the patent is no longer owned by the entity that is a member of the SSO. In such situations, the acquiring entity will not necessarily

have subscribed to the rules of the SSO such as the commitment to licence the respective patent on FRAND terms.

The Horizontal Antitrust Guidelines⁴ specify that, in order to ensure the effectiveness of the FRAND commitment, there needs to be a requirement on all participating IPR holders who provide such a commitment to ensure that any company to which they transfer their IPR is also bound by this commitment. This could be, for example, implemented through a contractual clause between buyer and seller.

Please note that some questions in Section 2 of this consultation concern transparency as regards patent ownership transfers. Please feel free to cross-reference, in case you reply to both sections.

You can find background information on the transfer of standard essential patents in chapter 5.6 of the Study.

Respondent profile with regard to this section

If you wish to reply to this section of the public consultation, please ensure that you explain in your submission the type of experience you have/had with SEP transfers and, in particular, whether this experience was gained as a buyer or seller of SEPs. Where appropriate, please specify to which business activity, product group, standardization field etc. your respective observations apply.

Questions on the prevalence of transfers and their causes and consequences

The first set of questions aims at gathering your views on the prevalence, causes and consequences of SEP transfers.

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?

This happens frequently. We buy and sell patents on regular basis, many of which are SEPs and many of which are burdened with FRAND commitments.

We fail to see a structural and direct relation between trade and being or not being SEPs. Patents are being traded to put them to better use at the new owner or as a finance aid. Best use and value can flow from being a SEP or from other features.

In general, trading IPRs is getting more abundant, fitting well with the trends towards a knowledge economy and towards open innovation. We believe this in itself is positive, albeit that, as with any economic activity, there are some potential risks and downsides (such as certain behaviour of certain non-practicing entities).

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?

⁴ Communication from the Commission "[Guidelines on the applicability of Article 101 of the TFEU to horizontal co-operation agreements](#)".

All these aspects are highly dependent on the situation at hand; we see no generic trends.

See 4.1.3 however for one particular consequence.

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?

Yes. Non practicing entities (NPEs) have become more abundant. Since they are not users of IP owned by third parties, they can and frequently do strongly assert the patents they acquired and have in their portfolio without any backfire risk.

Some NPEs just assert lower quality patents against implementers generically, without specific information or evidence of patent infringement, aiming for a settlement offer by the implementer. In combination with high litigation cost, especially in the US, such cases form a substantial threat, especially for less powerful implementers.

It is thus essential that patent offices ensure that patents are of high quality, that court rules provide that the alleged infringement is properly identified right from the beginning, and that it is clear that licensing commitments (such as FRAND commitments) survive a transfer of ownership.

Questions on the effectiveness of the current rules

The following questions ask for your experience with the effectiveness of the current rules and practices when standard essential patents are transferred.

Question 4.2.4 specifically concerns the "license of right" concept existing in some Member States. Under this concept a commitment to licence SEPs on reasonable and non-exclusive terms can be tied to the patent itself.

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.

Many IP-and-standards regimes rely on good faith and implicitly implied obligations in case that committed participants transfer their SEPs. However parties in bad faith would indeed have room to exploit the loop holes.

In some organizations, such as ETSI, a stronger legal base is being sought to enforce FRAND commitments across the ownership chain. The benefit of this is hardly debated and has our support; to achieve this is mainly a matter of getting it legally watertight.

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.)?

See 4.2.1. We think solid rules for SEP transfers are indeed needed: to provide legal certainty and a level playing field through legally enforceable rules for good faith behaviour in this respect. This in turn will support the broader goal of the patent system, namely to encourage investments in innovation.

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 standard setting organizations must include chain commitment rules in their IP regimes, to which members are bound. Members must contractually transfer the exact same FRAND commitment to the buyers of their SEPs. At the same time the IP policy should clarify that the FRAND commitment shall be legally interpreted as a chain responsibility without regard to the exact text of the transfer agreement (because errors are easily made in such agreements, as result of legal negotiations on the exact text under time pressure).

The legal complexity is that some legal systems (e.g. Anglo-Saxon) would evaluate the intent of the regime stronger then the exact text of the transfer agreement, while others (e.g. Germany) would entirely disregard the intent of the regime and only evaluate the transfer agreement. This makes designing a watertight regime legally challenging.

An essential point is that there must be safeguards for the IP seller that behaviours in bad faith by any future owner, after proper transfer including the FRAND commitment, does not create liabilities for the original owner.

Legislators can also play a role here to ensure that future owners are legally committed to FRAND commitments entered into by the initial owner.

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?

The License-of-Right (LoR) system does not exist throughout Europe, and it is not harmonized. The future unitary patent will have a LoR system. We occasionally use the LoR system to benefit from the renewal fee reductions that apply when a LoR declaration is filed.

Importantly, we don't use the LoR system for patents that we exploit by means of licensing programs, as we are too often faced with users of our patented inventions who are simply not willing to pay license fees. To ensure a level-playing field amongst all users of our patented technologies, we have to ensure that our patents have teeth, i.e. we have to ensure that we can obtain injunctions against those users of our patents who don't pay as otherwise only some would pay and others would not, thereby creating a competitive disadvantage for the bona fide users of our patents.

Key issue 5 – Patent pools related to standardisation

Objective of this section and definitions

This section of the consultation concerns the role that **patent pools** play or could play in standardisation. We especially are interested in knowing your views on:

- Possible benefits of standard-related patent pools and difficulties in setting them up;
- Organizational links between standardisation and patent pool creation;
- Incentives for voluntary participation in patent pools.

For the purpose of this public consultation the term "patent pool" is defined as an arrangement by which two or more holders of patents agree to licence these patents under a joint licence to each other and/or third parties.

You can find background information on standard-related patent pools in chapter 5.3 of the Study.

Respondent profile with regard to this section

If you wish to reply to this section of the public consultation, please ensure that you explain in your submission the type of experience you have with patent pools and whether this experience is as a patent pool contributor, as a patent pool administrator/facilitator and/or as a licensee of a patent pool. Your answer can cover on-going or failed attempts at patent pool creation.

Questions on benefits and costs of patent pools

The first set of questions aims at obtaining your views on the possible benefits of patent pools and on difficulties in realizing these benefits.

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?

We have been involved in the formation of various successful patent pools. For several patent pools, we act as the main driving party, and also act as licensee of various other patent pools. We sometimes act as administrator and have been directly involved in the establishment of some.

Patent pools can be useful for standards for which many SEPs owned by many parties exist and there will also be many implementers.

Since this is the case for a wide range of interoperability standards and there are only a few patent pools, indeed there are many standards for which no pool was created but which would be beneficial. We do not want to name them specifically, although the current "patent wars" point to a few obvious situations.

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?

Both parties will see their transaction cost (negotiation) reduced, also the throughput time which in fast moving markets can be a decisive factor for the distribution of market shares and economic returns.

Licensors have to negotiate the terms for the pool though, which takes the place of negotiating deals with licensees. This may be very challenging in complex situations.

A pool reduces the patent thicket, while improving legal certainty, pricing transparency and the level playing field for implementers.

Due to the collective foundation and the incentives of the different actors, a pool will more likely and more naturally arrive at a fair total license fee which the market can bear, in relation to the market value of the products and the share of this value which is directly enabled by patented technologies. Likewise it will more likely lead to a fair distribution of license income over the SEP owners and will help avoid that non-SEP patents are successfully brought forward as SEPs by their owners.

A pool will by definition have non-discriminatory licensing terms and provide transparency, since uniform terms are collectively agreed and then published. There are also no discussions on reverse licensing of non-SEP patents as part of the licensing agreements.

The existence of a pool makes it much harder for implementers to refuse a license or negotiate the terms forever in bad faith, as such behaviour is highly visible and the actual operation of a pool provides objective evidence that the license terms are FRAND.

In conjunction, the advantages given above will on average lead to less occurrences of fierce disputes and threats of injunctions.

Essential conditions to make pools work and provide these advantages include:

- There must be a fair, objective (independent) valuation of the essentiality of the SEPs to ensure a proper distribution of license revenues.
- SEP owners must be free to join or not join the pool. However to discourage opportunistic (e.g. free-rider) behaviour, this could best go along with a stronger obligation for the FRAND commitment for those opting out, e.g. to have a 3rd party assess the essentiality of SEPs outside the pool.
- All SEP owners must have a right to join – no exclusions.

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?

The de-facto situation is bilateral license negotiations, in which many SEP owners voluntarily organize their offers in clearly announced programs.

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 is getting enough of the significant patent holders to join so that a “critical mass” of the patents are in the pool. Another important difficulty is the necessity to strike a multi-party agreement acceptable to both the patent holders and the implementers, which deals with the distribution of substantial economic value between the parties who have opposite financial interests.

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?

There are too few pools and the specifics of each situation are so influential that there is an insufficient body of experience to give “typical” numbers.

Questions on the incentive for patent pool participation

The second set of questions concerns the incentive for patent holders to license their patents via a patent pool. Please note that Question 5.2.2 applies to situations where patent pool creation would be beneficial but where it has failed (follow-up to Question 5.1.1).

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

Mainly whether the patent holder will get what it deems to be a fair compensation for the use of its patents, taking lower transaction costs, faster market penetration and better compliance into account. Our own perception of value optimization options for own SEP portfolio and how well each of them will work out. A great many factors, most of them highly specific for the situation and the particular company, affect the outcome of this evaluation (this varies from hard figures and analysis to personality and experience of responsible managers).

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?

Ensure that patent holders receive a fair compensation for their patents if put into a pool. This would require implementers to accept pool royalty rates that are higher than implementers prefer. FRAND safe harbour rules could be considered for patent pools. Implementers could be required to provide evidence that they are licensed under a patent pool, e.g. at customs.

Questions on the organizational links

The third set of questions concerns the organizational links between standardisation and patent pool creation.

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 standard setting organization should itself not be involved in creating a patent pool because that is not their expertise and could hamper the development of a best-in-class standard.

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?

See 5.3.1

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?

Public authorities can promote the use of patent pools as a good way to avoid royalty-stacking problems. The actual formation of a patent pool can better be left to the market parties. FRAND safe harbour rules could be considered for patent pools.

Key issue 6 – Notions of "fair", "reasonable" and "non-discriminatory"

Objective of this section and definitions

The present section of the consultation concerns the commitment to licence standard essential patents on "fair, reasonable and non-discriminatory" (FRAND) terms.

Many standard setting organizations require that their members give such commitments. The FRAND concept is also used in other contexts. In general, the meaning of "fair and reasonable" and of "non-discriminatory" is not explained in detail in the patent policies of standard setting organizations.

We are particularly interested in your views on:

- The definition of the terms "fair" and "reasonable";
- The guidance available on this topic and the so-called ex ante mechanisms in SSOs;
- Specific issues with "fair" and "reasonable" in portfolio licenses and cross-licenses;
- The application of "reasonable" on the overall, cumulative royalties;
- The royalty base and the level in the value chain where licensing takes places;
- The concept of non-discrimination.

You can find background information on FRAND aspects in chapter 5.5 and parts of 5.1 of the Study.

Respondent profile with regard to this section

If you wish to reply to this section of the public consultation, please ensure that you mention in your submission any type of experience you have regarding FRAND licensing.

If you are both a holder of standard essential patent as well as an implementer of standards involving patents, please specify, whenever pertinent, from which of those perspectives you answer a particular question.

Questions on the understanding of and experience with "fair" and "reasonable"

The first set of questions relates to your understanding of the terms "fair" and "reasonable" and your practical experience with these concepts. Methodologies for defining FRAND discussed in the literature are for example:

- definition by reference to the incremental value of the technologies adopted in the standard in comparison to alternative technologies that were rejected;
- definition focusing on the value of the technology before the standard was adopted;
- definition by reference to the market value of similar transactions outside of the standardization context;
- definition by reference to the actual transactions relevant to a given standard (if possible) or similar standards.

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?

Bringing these notions to practice should entirely be left to negotiation in the market place, with legal disputes / courts as escalation mechanisms in the exceptional (yet sometimes very impactful) cases where negotiations between stakeholders does not lead to an agreement. Over time a body of case law and references has evolved that works well in practice

We believe the interpretation hinges on too many factors to provide more in-depth guidance that could be generally applied as a one-size-fits-all solution.

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.

Pass.

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?

Pass.

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?

Pass.

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?

Trying to find clues for what is FRAND primarily must take into account the value added to the product by the SEP(s) in question. This value can be dramatically different between SEPs.

In many cases the terms for other patents or a pool can provide good clues, because the value added by several SEP's is comparable. There are however also cases where such comparison has very little meaning, because the differences between the SEPs are too substantial.

Further, one has to realize that patent holders compromise on the value of their patents when joining a patent pool in return for lower transaction costs, faster market penetration and better compliance, on usually a worldwide basis. This means that an individual bilateral license usually has a higher price point, and may vary depending on specific circumstances.

Questions on guidance and mechanisms

This set of questions explores your views on the existing guidance and mechanisms on how FRAND could be better defined.

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?

See 6.1.1.

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?

We think that ex-ante disclosure of licensing terms for SEPs in most cases is neither meaningful nor appropriate, because (a) both the standard and the patent are not in a final state at the moment that this information might be of help for the standardizers; (b) the actual value of the standard and its underpinning technologies are extremely hard to assess at that same time, since both markets and technologies evolve rapidly and nearly unpredictably, and standardization is a long term process. Practically speaking, a patent holder will always announce an ex-ante royalty rate that is conservatively high so that it could always have room to bargain down to the royalty rate it really believes would be acceptable, so the total of all ex-ante royalty declarations is likely to be too high to be of practical use. Further, there are anti-trust concerns to discuss pricing at this stage.

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?

See 6.1.1 and 6.2.2.

We see no value in limiting the creativity and negotiation freedom of market parties to arrive at agreed implementation of FRAND commitments. It could lead to inefficient allocation of resources by not allowing the best fit arrangements to be made between private parties.

Portfolio licencing, cross licencing and "freedom to operate"

This set of questions explores issues of FRAND in the case of portfolio licencing and comprehensive licences that are constructed to ensure "freedom to operate" or "patent peace".

Q 6.3.1 Advantages of portfolio licensing: What are the advantages of portfolio licences respectively for the patent holder and for the implementer? 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).

The value of "freedom to operate" is elimination of those limitations to what a company brings to market and risks of violating such limitations, to the extent they stick to the covered patent

portfolios. This value can be substantial enough for both / all involved parties to give up their own rights towards the other players(s).

Portfolio licensing gives scale effects for licensors and licensees at the expense of some of the ability to tailor. In many cases this is an efficient, hence practiced way of working.

As to the further questions, there are too many variations in practice – hinging on the specifics of each case – to be able to cover them here.

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?

This is subject to free negotiation between the parties and may differ between cases.

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?

Cross licensing is a barter variation of portfolio licensing and "freedom to operate". Apart from the advantages of the latter two, it saves the burden of metering business volumes and reduces costs. "Fair" and "reasonable" apply as usual: both parties aim for an agreement.

Cross-licensing normally does not focus exclusively on SEPs under FRAND commitment and may also exclude SEPs. The concept of FRAND is therefore not specifically relevant to it.

Overall/cumulative royalty requests

This set of questions concerns situations where a multitude of patents held by different entities are bearing on a specific product so that the licensee needs (royalty-bearing) licences from a multitude of patent holders. For the purpose of this consultation, this situation is called "royalty stacking". This set of questions explores the pertinence of the issue as well as solutions other than patent pools (for patent pools see Section 5).

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?

See our answers to 1.1.1, 1.1.2 and section 5.

SEP owners have an interest for the market to flourish in order to optimize their revenues. In some cases when there is no pool or some players opt out, there may be prisoner dilemma types of situations in play that create incentives for SEP owners to seek ways to appropriate a disproportionate share of the value. However, in a market where most SEP owners negotiate license fees that are fairly proportionate to their share in the overall "royalty stack", it is hard for others to succeed in demanding substantially higher fees for SEPs under FRAND commitments.

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?

The best and proven mechanism we know is patent pools. Patent pools often cover a single standard, but there are also examples of patent pools that cover a family of standards.

The legal system is responsible for and capable of making judgments in case of disputes. So far this has been effective to avoid substantial and sustained abuse. As with all disputes, some collateral damage may happen before a case gets settled but we believe this to be an unavoidable side effect of any society arrangement that touches upon conflicting interests.

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?

We believe the negotiations in the market place are normally capable of settling these issues. We also believe that patent pools are a good way forward.

The existence and use of independent, professional patent valuation services could be of great support too – also for judges to take more informed decisions. We believe the trends towards a knowledge based society will naturally fuel the demand for this sort of service, which in turn will fuel an evolution of the supply.

We believe the proliferation of low quality patents is indeed a concern. Patent rules should demand a real inventive step and patent offices should strictly enforce the requirements when processing applications. In this respect there are in practice substantial differences between nations / patent offices. We point out that both the investments to create basic technology innovations and the value that flows from them are several to many orders of magnitude higher than those for IP just enabling add-on features. It is especially the former type of innovation that must be protected very strongly by the patent system and IP-and-standard regimes. See also our remark on base patents under 3.2.5.

See also our answer to 6.1.1, 2.1.2 and 2.1.3.

Questions on the royalty base and the value chain level

This set of questions concerns the level in the value chain on which SEP licensing takes place. This is linked to the "base" on which royalties are calculated.

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/implementers or are there different business practices?

Today's practice shows many varieties of business practices, as SEP owners tailor this decision to the situation. All named examples are being practiced, as enabled by the patent system.

We believe that the freedom to do so is important in order to ensure that the patent system can work properly and resources are put to their most efficient use.

In this context we point out that not only the total license sum is affected by which level of the value chain gets licensed, but also the effectiveness and efficiency of enforcement of the license

arrangement. This in turn is of the essence to guarantee a level playing field, which is in the interest of bona fide players and therefore of society and the economy at large.

Another public interest, related to the competition between regions, is that enforcement is often easier at some points in the value chain than at others because of the legal system and enforcement thereof in different nations.

We strongly believe that it is not desired to impose that the smallest saleable product implementing the invention should be used as royalty base. An invention may very well be implemented in an IC that only costs e.g. EUR 5, while this invention only makes sense in the context of a final product of e.g. EUR 200. In such a situation, a royalty of e.g. EUR 1 (i.e. 0.5% of the price of the final product) may very well be a fair royalty, and this royalty should not be rejected as ridiculously high because it happens to correspond to 20% of the IC price that was only EUR 5.

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?

We believe that the freedom to negotiate these aspects should be left to market parties and in no way be prescribed or even regulated, as this will inevitably lead to distortions that advantage certain parties at the expense of others; this is because markets differ in important characteristics and evolve dynamically, so any eternally imposed set of rules would fail to fairly address the specificities of any real life case.

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?

Patent policies of the standard setting organizations do not currently address this to our knowledge and we believe this is right and should stay the same.

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 implementers on other levels? Please distinguish between impacts on patent holders, on component makers, on end product makers and on the standardization system itself.

See 6.5.2. Restrictions would deprive patent holders from an important part of the rights given to them under the existing patent system, and this would make investment in technology innovations less attractive. We therefore believe that what to license and how should be left to negotiations between market parties in a free competition model.

Questions on the "non-discrimination" principle

This set of questions concerns your views and your experience with the "non-discrimination" element of the FRAND commitment. Please note that the issue of where in the value chain licensing happens - which is sometimes discussed under this heading - is already covered in questions Q 6.5.1-6.5.4 (above).

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?

To our understanding the non-discrimination principle demands that similar terms be offered to different parties under comparable circumstances, and thus helps to ensure free and fair competition by a commitment to not advantage some parties versus others, or to seek compensation for licensing in a way that plays to unique strengths of a particular licensee (such as seeking to obtain non-SEP licenses).

The principle primarily binds the licensor, and creates legal certainty for a level playing field to licensees.

By definition FRAND commitments are made per standard and hence bind SEP owners per standard.

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?

We are aware that sometimes SEP owners seek reciprocity as to non-SEP licensing, which can be interpreted as stretching the commitment for non-discrimination. Nevertheless, a request for non-SEPs can be best managed in bilateral negotiations between the patent holder and implementer.

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

Reciprocity is an important condition to the FRAND commitment. We note that the non-discrimination obligation only arises from the FRAND commitment, and does not as such apply for patents not under such commitment (for those, competition law governs what is and is not acceptable in this respect).

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 implementers, 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?

We do not believe this is a very important topic. The aspect of non-discrimination is to avoid that some parties would get advantaged versus others. We believe that some level of flexibility is compatible with this principle depending on the specific circumstances and should be allowed. If some parties agree, for example, that incorporating the SEPs license in a larger cross-license agreement it can be assumed that the value equivalent of the alternative of cash compensation is included in the cross-license agreement. Cross-license agreements always aim to balance the value for both parties, as neither wants to give away any value to the other (this value is a derivative of business volumes and patent portfolio strength).

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?

Pass.

Key issue 7 – Patent dispute resolution

Objective of this section and definitions

This section of the consultation concerns the role that **alternative dispute resolution (ADR)** plays or could play in resolving disputes over standard essential patents.

For the purpose of this section, the term "disputes" refers to disagreements that are not resolved in the process of negotiation. The term "alternative dispute resolution" includes dispute resolution mechanisms other than one party to the dispute litigating against the other.

We are especially interested in your views on:

- The prevalence, causes and impacts of disputes over standard essential patents;
- The benefits and costs of providing alternative dispute resolution mechanisms;
- The integration of dispute resolution mechanisms into the standardisation process and the incentives for participants to use them;
- The substantive and procedural aspect of setting up such dispute resolution mechanisms.

You can find background information on standard-related patent pools in chapter 5.4 of the Study.

Respondent profile with regard to this section

If you wish to reply to this section of the public consultation, please ensure that you explain in your submission the type of experience you have had with dispute resolution mechanisms and, in particular, whether this experience was gathered as an adjudicator/judge, representative of a party or other (patent holder, potential licensee or other).

Questions on the prevalence and impacts of SEP disputes

This set of questions concerns the prevalence and impact of disputes concerning standard essential patents.

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?

We believe patent disputes are a natural aspect of the patent system and do not structurally happen more often for SEPs than for other patents. We also do not believe that there is a truly concerning trend or situation as to the number of cases that occur.

The stakes go up with the investments made in technologies, the market size and with competitive dynamics.

In this respect we observe some highly visible battles in the telecommunications arena, where (a) all these factors come together to create high stakes, and (b) there are different sort of players, some of which (notably in Europe, as part of GSM development) have been very deeply investing in technology and others (notably North American and Asian players) focus on implementation, and have vested unique patent portfolios at that level (such as for user interface features). All of this is basically a sign of the major market success in the telecommunications industry, which has been made possible by the telecom standards.

We should not overlook a very practical issue: there will always be companies that don't want to pay for the 3rd party intellectual property they use (i.e. the unwilling licensees). Such companies can only be made to pay what *bona-fide* implementers pay by seeking injunctions. Such companies will use all available arguments, and will try to delay to the maximum extent possible the need to start paying. It is thus important, to guarantee a level playing field among all implementers, that litigating SEPs is not made subject to hurdles that result in that it is more advantageous to refrain from taking licenses and paying royalties than to just pay for using IP generated by somebody else.

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?

Essentiality, being or not being a SEP, validity, relative value and what constitutes FRAND in relation to that value seem to be the most disputed aspects.

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?

These costs are in itself an incentive, except for the very largest players, to try and settle out of court. The main cost differentiator is the place of the court; some jurisdictions are much more expensive than others. Of course the complexity of the case and how long it is under process are also relevant. However, even rather high litigation costs will be small compared to the turn-over made.

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?

Not really at this point, although with the pressure on the value of SEPs we consider it likely that technology contributors will reduce investments and/or will go for proprietary solutions instead.

Questions on benefits and costs of dispute resolution mechanisms

This set of questions aims at determining your views on the possible benefits and costs of alternative dispute resolution mechanisms for SEP disputes.

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?

We don't believe that ADR is an important tool to resolve SEP disputes. Only courts are able to revoke any wrongly granted patent with effect *erga omnes*, while any arbitration decision holding that the patent is invalid only applies between the parties. In the case of SEPs, a court decision thus clearly serves the general interest, while an arbitration decision does not.

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?

As with all disputes, if both parties believe that ADR makes more sense, they should use it. However, we don't believe that ADR is a panacea.

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

Pass.

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?

Pass.

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?

Pass.

Questions on the integration of dispute resolution mechanisms into the standardisation process

This set of questions aims at obtaining your views on how to integrate dispute resolution mechanisms into the standardisation process. We are also interested in learning your views on whether and how to create incentives for SEP holders and standard implementers to use such ADR mechanisms for their SEP disputes.

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?

We believe SSOs themselves should not operate ADRs (or interfere with the content in any other matter) but merely create the standardisation process (including IP regime) and guard its proper application. We are not aware that any SSOs we are member of deviate from such an approach.

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?

See 7.2.1. We strongly believe that IP policies of SSOs should refrain from making ADRs compulsory.

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.

Pass.

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?

See 7.2.1 and 7.2.2. We strongly believe that IP policies of SSOs should not make ADRs compulsory, as we are not convinced that this would improve the situation. However, when in any given dispute, both parties believe that ADRs make sense for them, they should be free to use it.

Questions on setting up such dispute resolution mechanisms

This set of questions aims at obtaining your views on the substantive and procedural aspects of tailoring alternative dispute resolution mechanisms to the specificities of SEP disputes.

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 an ADR mechanism "tailor-made for SEP disputes"?

Pass.

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?

Pass.

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?

Pass.

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?

Pass.

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?

Pass.

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 implementer, a practical form to settle SEP disputes?

Pass.

Key issue 8 – Unwilling implementers and injunctions

Objective of this section and definitions

This set of questions aims at gathering your views on **efficient protections** for holders of standard essential patents against implementers who are unwilling to take licenses for these patents as well as on the use of injunctions for infringement of a standard essential patent.

For the purpose of this section, **injunctions** are defined as lawsuits against implementers of technologies covered by standard essential patents based on an alleged infringement of these patents and seeking to have the products of such implementers banned from specific markets in a particular jurisdiction.

The Commission has recently adopted **two antitrust decisions** in this area⁵. These decisions state that a patent holder, including a holder of SEPs, is generally entitled to seek and enforce injunctions as part of the exercise of its IP rights. However it can, under specific circumstances, be a violation of EU antitrust law to seek or enforce an injunction against a willing licensee after having given a FRAND licencing commitment. In the context of these decisions, the notion of willingness is referred to as the willingness to enter into a license agreement on FRAND terms and, in case of dispute, to submit to third party adjudication.

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 implementers who are unwilling to pay royalties or who delay payment of such royalties? What can standard setting organizations do in this regard?

The right to obtain injunctions is the fundamental ultimate tool to enforce the rights of patent owners against unwilling implementers and should therefore never be compromised; this also holds for SEPs. Without injunctions, unwilling implementers will have free way to unduly appropriate value created by and owned by others in an unfair manner, thus also distorting fair competition and frustrating a level playing field.

We fully support that SEP owners are obliged to grant licenses on fair, reasonable and non-discriminatory terms and conditions. However, we also strongly believe that there is a reciprocal obligation on implementers to actively seek a fair and reasonable license, and that it would be utterly unfair and unreasonable to the SEP owner to impose all kinds of limitations on the SEP owner as to seeking injunctions when the SEP owner is confronted with an implementer who fully exploits all recourses available to that implementer to avoid payment obligations or to at least delay payment as many years as possible by simply alleging that he is willing to take a license on FRAND conditions once a court in 3rd instance after having sought the opinion of the EU Court of Justice on an issue of EU law has determined that the patent is both valid and infringed, and has determined what in this specific case a fair and reasonable royalty would be. This holds especially in case of a SEP licensing program that has already been signed up to by several other implementers, thereby demonstrating that these several other implementers believe the patents to be good and relevant and the license conditions to be OK.

We agree in principle that “it can, under specific circumstances, be a violation of EU antitrust law to seek or enforce an injunction against a willing licensee after having given a FRAND licencing commitment”. However we strongly emphasize that in this context it is of the essence to very

⁵ http://ec.europa.eu/competition/antitrust/cases/dec_docs/39985/39985_928_16.pdf and http://ec.europa.eu/competition/antitrust/cases/dec_docs/39939/39939_1502_5.pdf

precisely and carefully define what are the features that make an implementer “willing”, as there are several pitfalls that could easily disturb the right balance.

We observe in the present debate (e.g. in ETSI) that legal texts for the SSOs patent policy are being suggested (even recently by the European Commission) that essentially give room for implementers to delay fair license payments forever while still qualifying as “willing”. Such arrangements, when adopted, would severely hurt patent owners’ rights and hence discourage deep investments in technology innovation.

More specifically in the telecommunications arena, provisions that too easily designate an implementer as a “willing licensee”, would serve to export value created in past decades by European companies to certain North American and Asian companies, thus working against the interests of EU prosperity (innovation, investment and jobs), and discouraging any future technology contributor to invest in new standards.

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?

Implementers who are sued by an SEP owner can raise competition law defences, while they should ensure that they behave as *bona fide* licensees.

We believe that the German Supreme Court in the Orange Book case has given the correct recipe: an implementer can prevent an injunction from being imposed on him if he behaves as a *bona fide* licensee by (i) paying royalties at a level that the SEP owner cannot refuse without abusing the SEP owner’s rights, and (ii) submitting royalty reports to the SEP owner.

It is important to note that notwithstanding the so-called patent wars in the smartphone area, smartphones are sold in huge quantities, which demonstrate that in practice, implementing standards is not rendered impossible as a result of patent disputes.

There is no reliable evidence – and certainly no evidence acquired by proper scientific norms of empirical study – that technology is being “held up” or that consumers are being “harmed” as a result of patents on technological standards. The explosive technological innovation, diversity in products, and incredible low prices in smart phones and tablets belie any assertions to the contrary that are based on only self-serving anecdotes or unproven theoretical models.

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.

We have seen this mainly in the telecommunications arena. The examples are well known.

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 implementers (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?

Fortunately we are not aware of any such situation. We observe with some concern the recent developments in the EU though, as it seems the balance may be moving more than needed and justified towards the interests of implementers, essentially including unwilling ones.

It is important to remember that weakened patent rights are in no one's interests. It undermines the ability of companies to invest billions of euros in R&D and to bring new innovations (including innovations that end up in standards) to market.

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?

We believe that there is in general due awareness among standardizers of these issues in proportion to what is at stake. That means: in those standard developments where the stakes are high there is very strong awareness; also in proportion to the dominance of the SEP portfolios and/or market positions of the players involved. Conversely, in standard setting activities where SEPs are hardly at play the awareness is often much lower – this does not cause concerns though because there the issue is hardly relevant.