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by email to entr-sep@ec.europa.eu

European Commission
DG Enterprise and Industry
Unit A4 – Industrial Competitiveness Policy for Growth
Avenue d'Auderghem 45
1040 Brussels, Belgium

Ladies and Gentlemen:

European Commission's Questionnaire (October 2014) on Patents and Standards:
A modern framework for standardisation involving intellectual property rights

The DVB Project is pleased to submit its response to the Questionnaire, dated 14 October 2014 of the European Commission, issued as part of its consultation on Patents and Standards: A modern framework for standardisation involving intellectual property rights.

The DVB Project is a standards body, located in Geneva, that develops specifications for digital video broadcasting and related fields. Formed in 1993, it has today close to 200 members from Europe and elsewhere. Its membership is divided into equipment manufacturers and software suppliers, network infrastructure providers, broadcasters and content providers, and regulators. Representatives of the European Commission are ex-officio observers on our Steering Board.

One of the strengths of the DVB Project is its policy governing intellectual property rights. In this letter,

A. We explain the central elements of DVB's unique IPR policy.

Because of the interest shown by the Commission in these topics,

B. We set out our experience in the fostering of voluntary joint licensing programmes (patent pools); and

C. We discuss the provision in our IPR policy requiring arbitration of IPR disputes.

Finally, in this letter,

- D. We set out the use in some DVB standards of “hook IP”, which is included as essential in a standard precisely because enforcement of the hook IP by injunction can block audiovisual piracy and protect content.

Our specific responses to the Questionnaire follow this cover letter. We also attach, as an annex, a copy of DVB’s IPR policy (article 14 of DVB’s Memorandum of Understanding).¹

DVB has issued more than 100 specification documents. Many DVB standards, notably its transmission standards, have been implemented, or adopted into national law, in countries throughout the world. Nearly one billion television receivers, set-top boxes and other consumer devices use DVB standards. Once a specification has been completed by DVB, it is delivered for formal standardisation to a recognised standards body, in most cases the European Telecommunications Standards Institute. The DVB Project is a non-profit association formed under Swiss law. Further information on DVB can be found at www.dvb.org. Communications in respect of this response can be sent to eltzroth@dvb.org.

DVB’s IPR policy has worked well since it was initially adopted in the mid-1990s. This is evidenced by the success of our standards, the wide take-up of DVB services and devices across digital television markets, and the almost complete absence of litigation over licensing of patents associated with DVB standards. As set out below, we ask that the European Commission

- Recognize that there is no need to compel standards bodies to adopt mandatory disclosure policies; the experience of the DVB shows that a FRAND policy with “negative disclosure” is adequate to ensure availability of standardised technologies for licensing (see part A of this letter); and
- Acknowledge that, in respect of Hook IP – standard-essential patents intended in part to block audiovisual piracy and to protect content – injunctive remedies play a critical role (see part D of this letter).

Moreover, DVB believes that the Commission should be wary of imposing new duties on standards bodies - by requiring for example that they address patent aspects in technical subgroups or undertake patent searches and other IPR investigations - activities that are beyond the mandate of standards bodies, and their competence and resources. New duties could in their implementation present competition law concerns. DVB notes that standards bodies are not alone in the environment for standard setting. There are other important elements, including patent offices, regulatory and commercial frameworks, and the commercial entities engaged day-

¹ DVB, Statutes of the DVB Project (MoU), version dated 3 January 2014 available at https://www.dvb.org/resources/public/documents_site/dvb_mou.pdf.

to-day in agreeing market-based licences. These taken together with SDOs foster a generally well-functioning standards and licensing system. Standards bodies cannot alone take on the responsibility of correcting every imperfection in this environment.

DVB's response has been prepared by its IPR Module and adopted by its Steering Board. Our response draws from almost two decades of applying a unique IPR policy. In this letter and the detailed answers to the Questionnaire, we focus on our policy and call out aspects – for example on patent pooling and arbitration – where DVB's experience can contribute to the Commission's work.²

A. IPR Policy of the DVB Project: Overview

The policy on intellectual property rights of the DVB Project was adopted as an amendment to its Memorandum of Understanding in 1996.³ At the time of adoption, the concern was that patents associated with technology solutions that would be key for optimal technical standardisation – standard-essential patents (or “SEPs”) – could, when exercised, block, or make unmarketable, devices and services implementing DVB standards. The risk would be then that DVB's work would produce only “paper” (unimplementable) standards. The IPR policy reflects compromises among DVB members including those with advanced R&D facilities and state-owned entities in sectors with no strong tradition of licensing. The result was a balancing of these interests, allowing to implementers access to DVB technology on terms fair, reasonable and non-discriminatory, while allowing for technology contributors the recognition of the value of their patents, including remuneration subject to the FRAND promise. The core elements of DVB's IPR policy are

- Each DVB member agrees to grant licences to its intellectual property rights essential to a DVB standard on terms fair, reasonable and non-discriminatory,

² Many members of DVB's IPR Module also participate in other standards bodies. Through those bodies and other groups they will submit further views responding to the Commission's Questionnaire. These views encompass, among other topics, the importance of patent protection to innovation; the need for an EU IPR policy to account for Europe's growing role as a centre of innovation; the approach to be taken against allegedly abusive IPR practices; market distortions caused by reluctant licensees; the definition of FRAND; and the level of detail required in mandatory declaration regimes. As noted, DVB's response is focused instead on DVB's IPR policy and its novel elements.

³ A history and an explanation of the provisions of the policy can be found in Eltzroth, *IPR Policy of the DVB Project*, International Journal of IT Standards and Standardization Research (2008, 2009), available at http://www.dvb.org/resources/public/documents_site/negative-disclosure-frnd-arbitration-unless-pool-rules-ok.pdf.

IPRs are addressed not only in art 14 MoU DVB but also in other core governance documents. For example, our *Antitrust Guidelines* limit discussion of patents and licensing to the IPR Module and the Steering Board and list permissible activities to foster patent pools. DVB Project, *Antitrust Guidelines* (Annex B of Rules and Procedures of the DVB Project) (Feb 2014), available at http://www.dvb.org/resources/public/documents_site/dvb_antitrust.pdf.

- Except if the member gives notice, that it is unable to grant such licences, during certain periods after the specification is adopted and before completion of formal standardization by a recognised standards body.

In addition,

- Any dispute between members on the terms and provisions of our IPR policy is resolved by arbitration,
- Unless a licensing programme (patent pool) covering the standard in dispute has been formed.

Negative disclosure – the notice given by a member that it *cannot* grant FRAND licenses of its SEPs – is discussed in this part A. An important variant of DVB’s core IPR policy is the ex-ante negotiation and licensing framework that have accompanied certain “gateway specifications”. As explained also in this part A, the ex-ante negotiation linked to a gateway specification is, within DVB, the preparation of IPR licensing agreements and other arrangements before the completion of technical development on the underlying standard. The third and fourth elements of the policy – arbitration and patent pooling – are discussed in parts B and C below.

1. “*Negative disclosure*”. Contrary to a common practice in standards bodies, DVB does not require its members to make declarations of their standard-essential patents. Instead, DVB is concerned only if that IPR is not available for licensing on terms fair, reasonable and non-discriminatory. A member unable to grant a FRAND licence makes, during specified periods, a declaration that its patents are unavailable. Art 14.1, 14.3 MoU DVB. This form of “negative disclosure” has worked extremely well. Indeed since the inception of the IPR policy 18 years ago, no declaration of unavailability has been submitted.

The European Commission, in a prior consultation, has acknowledged the utility of DVB’s rule on negative disclosure. One example in the Commission’s *Guidelines on horizontal co-operation agreements* addresses the DVB model.⁴ Despite the focus on disclosure-based regimes in the Questionnaire and underlying documents, DVB believes that its approach – FRAND obligation coupled with negative disclosure – is a useful, and now time-proven, alternative to ensure the availability to implementers of standardised technologies.⁵

2. *Ex-ante negotiation for “gateway specifications”*. DVB has identified from time to time “gateway specifications” where members expressed concerns on the power over digital markets

⁴ European Commission, Communication, *Guidelines on the applicability of Article 101 of the Treaty . . . to horizontal co-operation agreements* (OJ 2011/C 11/01), para 327.

⁵ In 2009 DVB created a facility for voluntary disclosure of patents. <https://www.dvb.org/members/patent-facility-note>.

that could be exercised by contributors to DVB standards. As a result, DVB members have, while the standards are under development, also worked on licensing frameworks to diffuse this power. There have been two such “gateway specifications”. For the first, the Common Scrambling Algorithm, the concern was that contributions by pay television technology suppliers of conditional access technology would skew nascent markets for digital television. The second related to the Multimedia Home Platform. Here, some members noted the central role in MHP of java technology owned by Sun Microsystems. Each of these programmes – CSA, CSA3 and MHP – is an example of members of DVB engaging in ex-ante negotiations for licensing of IPR while the standard is under technical development.⁶ The CSA programmes resulted in pools comprising patents and other IPRs, administered by ETSI as a neutral custodian, for the implementation of various iterations of the Common Scrambling Algorithm. The details of each of these programmes are set out elsewhere.⁷ In this letter, we make several observations on DVB’s experience.

First, the ex-ante negotiations resulted in successful efficient licensing programmes. CSA has been widely licensed. The overall success of java licensing administered by ETSI was less clear, because of its commercial difficulties, the multiple avenues for licensing java technology, and other reasons. At the same time, DVB found that ex-ante negotiations can be complex and are resource intensive. Management of the licensing framework, or monitoring adherence to the licensing terms, can also require continuing resources of the standards body and its members. Some of the structures created as part of the MHP framework were, in retrospect, overly cumbersome.

In addition, DVB’s experience has been that even after the ex-ante negotiations have been successfully concluded, a revision of the standard can open the door for renewed negotiations. This was the case for later versions of MHP. As for the actual terms of the licence and other agreements, in DVB’s experience, the negotiations resulted in nominal royalties, or in royalty-free licensing. The licence agreements did contain a number of constraining terms. For example, in the CSA arrangements, the licensors require that implementers agree to antipiracy measures. Among other provisions, MHP licensees had to submit their products to conformance testing and to accept restrictions based on the scope of the licence grant. It is important to note that these

⁶ “Ex-ante negotiation” differs from the use of “ex-ante” in the Questionnaire. By “ante” we mean before the completion of the standard (and not at an earlier point, “before” the selection of the contributor’s technology). In ex-ante negotiation, DVB members come to a broad consensus agreement on a licensing framework and other arrangements related to IPR essential to a standard under development. The Commission, in its Questionnaire, does not ask about ex-ante negotiation, although it has aspects of “ex-ante transparency” (Q 1.1.2) as DVB members get a sense of the IPR associated with the technical contribution; and “unilateral ex-ante disclosure” (Q 6.2.2) and “ex-ante setting of parameters” (Q 6.2.3) as part of the negotiation.

⁷ The concerns raised by the gateway specifications, and the licensing frameworks, are discussed in *IPR Policy of the DVB Project*, supra n 3. On the complex arrangements established for MHP, see also *The DVB Project, Multimedia Home Platform (MHP): MHP Implementation Arrangements and associated agreements*, DVB Blue A066 rev 1 (July 2003) available at <http://www.etsi.org/images/files/MHPTTestSuites/a066r1V1-0.pdf>. Aspects of the ex-ante negotiations accompanying MHP were discussed at the workshop held by the US Federal Trade Commission, Tools to Prevent Patent “Hold-up”: IPR Rights in Standard Setting (21 June 2011), transcript at page 207 et seq available at http://www.ftc.gov/sites/default/files/documents/public_events/tools-prevent-patent-hold-ip-rights-standard-setting/transcript.pdf.

licensing arrangements were submitted for assessment, in the case of CSA1, to the Directorate General for Competition and, for CSA3 and MHP, to competition counsel.

Ex-ante negotiation, and the resulting complex licensing framework, are a significant departure from DVB's standard practice. This is why the effort required properly to conduct ex-ante negotiation has been reserved for gateway specifications like CSA and MHP that can have a transformative effect on media markets.

B. Fostering of voluntary licensing programmes (patent pools)

Since the adoption of the IPR amendment in 1996, the DVB Project has fostered the formation of a number of voluntary jointly-administered licensing programmes covering its standards. DVB's experience is unique, or at least uncommon, among standards bodies. *IPR Policy of the DVB Project* sets out in detail DVB's history of pool fostering: a variety of approaches including patent searches, reliance on holders to launch a fostering effort, "campaigning", and "routinization". DVB's current approach builds on this experience. In this letter, we describe the practical steps that DVB uses today to encourage the formation of pools. The table on the next page lists the DVB licensing programmes, describes the fostering process undertaken by DVB, and identifies the pool administrator.

Patent pools generally follow two phases: facilitation and administration. During the first, facilitation phase, a facilitator calls together potential pool participants in a series of meetings to negotiate the core agreements for a future licensing programme. The facilitator also makes arrangements for review by an outside independent expert of the claims of essentiality submitted by potential patent pool participants. Once the pool is formed, an administrator is named to contact potential licensees and to collect and to distribute royalties.⁸

As a standards body, DVB favours the formation of licensing programmes covering its standards for a number of reasons. In our view, a patent pool offers a lower aggregate royalty cost for licensing DVB technology. Pool participants have a range of diverse interests: they can be drawn from universities and R&D centres, from for-profit R&D companies and from manufacturers owning standard-essential patents (SEPs) and implementing the underlying standard. This is one element that creates an environment favouring the identification of a FRAND royalty. A joint licensing programme also reduces overall administrative costs. When compared to the results of the more common mechanism of patent declaration, pooling gives greater certainty for the quality of the patents thanks to the essentiality review conducted by independent counsel. A lead function of the pool is that it caps the royalty burden associated with the standard, removing market uncertainty for implementers of a standard in respect of patents held by pool participants, including their unlisted and future patents. Generally then a licensing programme can be treated as part of the life cycle of the standard, ensuring that it won't be an

⁸ As the Commission is aware, pool facilitation and pool administration generally fit within a framework established by business review letters of the US Department of Justice and comparable Commission guidance. This paragraph offers a cursory overview to place fostering, the prior precommercial activity, within the broader context of pooling.

unimplementable “paper standard”. Pooling as a licensing model is now fairly mature, having achieved regulatory acceptance and a fair measure of commercial success.

Standard	Process	Status
DVB-T	“Campaigning”	MPEGLA, now Sisvel
Common Scrambling Algorithm (CSA1, CSA2)	Gateway specification: licensing framework	ETSI
MHP (java elements)	Gateway specification; licensing framework, including compliance regime	ETSI, now terminated
MHP (non-java)	“Campaigning” (counterpart pool OCAP/True2Way)	Via Licensing, now terminated
DVB-H	First facilitation effort failed; DVB intervened; new facilitator completed pool	Sisvel
CSA3	Gateway specification: licensing framework	ETSI
CPCM	DVB fostering (discontinued)	
S2	Patent holders formed pool without DVB fostering	S2 Licensing
T2	DVB fostering	Sisvel
C2	DVB fostering	Sisvel

Table: Licensing programmes covering DVB standards ⁹

DVB effort then takes place before the facilitation phase. DVB’s fostering is a precommercial activity. It can comprise a number of steps during and after standard development.¹⁰ As an initial step, the DVB Project Office gathers information on those likely to hold patents essential to the standard. There are a number of open meetings to describe DVB’s process and to encourage participation. DVB uses different outreach mechanisms to ensure that non-DVB members are aware of the fostering effort.

⁹ The information supplied to the Commission on these pools (for example in the June 2014 empirical studies) is incomplete and at times inaccurate.

¹⁰ These steps are described in the *Antitrust Guidelines*, supra n 3. See also DVB Project, Press Release, “DVB takes steps to reinforce IPR policy” (30 Nov 2007), available at https://www.dvb.org/resources/public/pressreleases/DVB_pr166%20DVB%20Reinforces%20IPR%20Policy%20Final.pdf.

After the standard development work is complete the Project Office's fostering continues when it calls a meeting intended for those with a "well-founded belief" that they hold SEPs. The response to the call is voluntary. (A DVB member can choose not to participate in either fostering or pooling, and to pursue its own licensing policy.) This initial meeting and later meetings discuss whether the participants think a facilitation effort is timely; whether there are other SEP holders that should be notified of the fostering effort; and whether there are special factors in a pooling effort. The discussions during these meetings are confidential. A lawyer knowledgeable about competition law and standards bodies is present. As the fostering process progresses, there is an exchange of information with potential facilitators. This is intended to allow the candidate facilitators to prepare presentations to be made during a meeting with SEP holders. The final meeting results in a choice by SEP holders of a facilitator. With the choice, DVB's fostering is completed and the facilitation phase begins.

As the facilitation phase concludes, and the pool approaches its commercial launch, DVB holds fringe meetings for the pooling SEP holders to announce their terms and for an exchange of views by potential implementers and others on these terms. This exchange can be particularly fruitful because the broad membership of DVB brings together participants drawn from diverse markets and territories. It is important to note that there is no "negotiation"; instead the meeting is a forum allowing for an exchange of views of individual companies.

This is a summary of DVB's principal activities in fostering the formation of pools. Other tools are available and indeed have been used in the past, such as outside expertise; "peer-review" of essentiality claims; and intervention by DVB when a facilitation effort for a potentially viable pool appears to be foundering. And fostering is not required as a precursor to facilitation. For example the pool covering DVB-S2 technology was started by SEP holders without initial fostering by DVB. DVB's encouragement of voluntary joint licensing programmes, and its precommercial fostering, have worked well as an additional measure to promote DVB standards.

C. Arbitration of IPR disputes

Mandatory arbitration has been part of the DVB's IPR policy since it was first adopted in 1996. Art 14.7 MoU DVB. The terms for arbitration follow a framework set out by the selected arbitral institution, the International Chamber of Commerce: the terms specify the number of arbitrators, place of arbitration (that is, procedural law), substantive law, and language. (DVB has amended this article to allow the disputing parties to agree another method to resolve their dispute.) Article 14.7 covers disputes between DVB members. Arbitration is mandatory only if the dispute arises out of Article 14 (DVB's IPR policy).

Like much of DVB's IPR policy, the arbitration clause was novel. Arbitration was initially raised as a suitable model during discussions within ETSI on its own IPR policy. For DVB, arbitration may have been attractive as a one-stop shop: DVB was developing EU standards for cross-border television services and the risk was that the broad European markets for digital services and devices could be frustrated by discordances between Member State IPR laws. In addition, arbitration offers an efficient, speedy and arguably less costly mechanism to resolve disputes. It

should also be noted that arbitration was one element of a compromise on IPR policy that includes, as indicated in this letter, “negative disclosure” and pool fostering.

DVB believes that its arbitration requirement has worked well. Paradoxically, there have been no cases brought for arbitration (and no known litigation on IPR brought between DVB members). But, by one measure this could mean that the arbitration provision has been highly successful. The conclusion must be drawn that the SEP holders and potential licensees enter into commercial licensing agreements in the normal course. Any dispute between them is apparently resolved before either triggers DVB’s arbitration provision. In addition, it is possible that arbitration is discouraged because the form of arbitration specified in article 14.7 MoU is perceived to be too expensive (ICC as the arbitral institution, three arbitrators).¹¹ Moreover, under DVB’s IPR policy, arbitration is available only if a pool has not been formed. DVB’s leading standards are in many cases subject to a pool.

D. Hook IP

The use of injunctive relief enforcing patent rights is important as an antipiracy measure to protect DVB services and audiovisual content. Within DVB’s development process certain patents are often intentionally incorporated in required functionalities or other innovative elements of scrambling technologies so that injunctive relief is available against audiovisual pirates and illicit unlicensed devices. These patents – known as “Hook IP” – are offered for licence on nominal terms (for example, based on the cost of administering the associated licensing programme).¹² Hook IP is a specific form of standard-essential patents (“SEPs”) whose attractiveness is based on the potential use of injunction under patent law as an antipiracy enforcement tool.

DVB’s comments in this part D are limited to the importance to Hook IP of injunctive remedies. DVB does not have a view on the question – widely discussed in the context of standards development – of the use of injunctions to enforce SEPs for which the holder expects a royalty return. Also it is important to note that while it can be a highly useful antipiracy measure, Hook IP represents a small percentage, certainly less than five percent, of the patents associated with DVB standards. These other (non Hook IP) patents are covered by DVB-fostered patent pools (part B) or are otherwise separately available for licensing under FRAND terms.

Among its standards for digital television, DVB has developed core technologies for scrambling and content protection. Digital technologies present novel issues in the protection of audiovisual content and the reduction of piracy. One notable form of piracy is caused by “hacked” or illicit decoding devices that give viewers access to content without payment.

¹¹ The DVB has considered (but has not yet reached a conclusion on) a change of arbitral institution to the WIPO Arbitration and Mediation Centre because of its IP focus and lower expense.

¹² The owner of the Hook IP may have other patents essential to the standard for which it would seek royalties subject to its FRAND commitment.

In its work, DVB has had to balance its central objective of standardizing a broad range of the elements of digital video technology (to ensure horizontal television and other digital markets) with the concern of service providers that overly broad standardization would frustrate antipiracy measures. From 1994 DVB has been a central forum for discussion of these complex issues. An early achievement in this domain was a Conditional Access Package (1994) that announced the work on the Common Scrambling Algorithm, contemplated the use of a Common Interface, specified a code of conduct, etc.¹³

As part of their antipiracy efforts, technology companies (such as the CSA licensors) and service providers rely on tools developed in their licensing framework and those available against non-licensee infringers. The core of the licensing framework is, as discussed in Part A2 above, the technology IP pool, managed by a neutral custodian, offered at a nominal royalty. That framework has a number of arrangements that address audiovisual piracy, including the vetting of potential licensees to exclude pirates, the licensee's obligation not to engage in piracy, and other terms requiring the licensee to join in the effort against piracy. Here the intellectual property is the "hook" for the licensing terms.

Against non-licensee infringers, the companies and service providers turn to the traditionally available remedies: judicial actions under intellectual property laws (and more recent antipiracy legislation), and customs measures. Indeed the ability to use these measures underpins the entire agreed standardisation and licensing approach. In recognition of the long-standing efficacy against pirates of injunctive relief under intellectual property laws, DVB expressly calls for the use of Hook IP in its *Harmonised Security Framework*.¹⁴ The Framework, prepared by a DVB sub-group for security, is an internal DVB document that serves as guidance in the preparation of commercial requirements that may address security issues. In addition to Hook IP, the Framework also addresses such factors as cryptography, operational flexibility and backward compatibility, and co-existence and interfacing. It has further detailed provisions on content protection, privacy and data protection, and system integrity/security.

In respect of Hook IP, the Framework calls upon DVB sub-groups to consider, during the development of a new DVB security specification, the use of Hook IP as an additional layer of protection. Among the factors to be considered are: well-defined target for the application of legal remedies; Hook IP to be essential to consumer premises equipment (and not professional equipment); ease of detection of infringement; cost of development, and later use, of Hook IP; attractiveness of multiple Hook IPs. DVB members have devoted significant resources to the development (and broad market adoption) of technologies that rely on enforceable security measures. And to encourage wide-spread adoption, the Hook IP, comprising one or more

¹³ Much of the Conditional Access Package was subsequently incorporated in Community legislation. The DVB's Conditional Access Package is discussed in *IPR Policy of the DVB Project*, supra n 3. One aspect – the licensing regime managed by ETSI of iterations of the Common Scrambling Algorithm – is discussed in A(2) above. The licensing arrangements, and the royalty levels, are discussed for CSA1 at <http://www.etsi.org/services/security-algorithms/dvb-csa-algorithm> and for CSA3 at <http://www.etsi.org/services/security-algorithms/dvb-csa3-algorithm>.

¹⁴ *Harmonised Security Framework: Guidance for CM sub-groups in producing and assessing security frameworks (Revision 1)* CM-SEG2080, CM1524 (Sept 2014). (This document is an internal DVB document but is accessible to Commission representatives as ex-officio observers on our Steering Board.)

standard essential patents, is available for licence for a nominal royalty. The use of these measures is consistent with broadly-held policy goals to protect audiovisual content and to reduce levels of piracy.

In the context of the Commission's work on Patents and Standards, one central discussion has been the balance between the use of injunctive relief under patent law and the consequences of a FRAND promise made by a SEP holder. The European Commission has issued decisions and offered guidance in this area. In most cases, the SEP holder's goal is payment of a royalty. For Hook IP the concern is turned on its head: the owner of Hook IP has freely chosen to allow its patent to be incorporated in the DVB standard precisely so that it can enforce its exclusive rights against an infringer. This SEP holder is not looking to recover commercial royalties: it has set the royalties at a nominal level. Our discussion of Hook IP in this response is to call the Commission's attention to the value of Hook IP tied to the right to an injunctive remedy in support of the goals, commonly shared, to protect audiovisual content and to combat piracy.

For close to 20 years DVB has had an IPR policy that has worked well. The specificity of some of its provisions – “negative disclosure”, arbitration, fostering of patent pools – has contributed to the success of DVB standards and the availability of licenses to implementers. DVB has developed innovative responses to new challenging issues relating to IPR, for example on “gateway specifications” and Hook IP. DVB benefits from a diversity of members in its manufacturers constituency with a range of business models, including those that actively within Europe manufacture products that incorporate DVB standards, and those whose revenues are partially or even solely based on the return on intellectual property. The Commission's work on Patents and Standards should take account of DVB's experience. The conclusions of its Consultation should seek to ensure that innovators and implementers enjoy the full benefits of the technology protected by IPR and that standards bodies like DVB can continue to enjoy success in the development and promotion of technical standards and essential patents.

DVB and its members are available to discuss these and other aspects of the IPR policy of the DVB Project.

Sincerely,



Carter Eltzroth
Legal Director DVB

Attachment: Responses to Questionnaire in the Consultation of the European Commission on Patent and Standards: A modern framework for standardisation involving intellectual property rights

Annex: IPR Policy of the DVB Project: Article 14 of DVB's Statutes (MoU)

**Responses of the DVB Project to the
Questionnaire in the Consultation of the European Commission on
Patent and Standards: A modern framework for
standardisation involving intellectual property rights**

Note: this response is accompanied by a cover letter.*

Key Issues 1 and 2: Scope of standardisation involving patents; best rules and practices	
Prevalence and effect of standardisation involving patents	
1.1.1 Fields of standardisation involving patents	DVB sets technical specifications for digital video broadcasting and related fields. Since the time of DVB's launch, most of its standards implicate essential patents.
1.1.2 Trends and consequences	In the area of DVB's activities, as a result of convergence new companies are joining DVB with substantial patent portfolios.
1.1.3 Standardisation prevalence / complexity	DVB continues to maintain a high level of activity within its area of expertise.
1.1.4 Standardisation in support of innovation	DVB standards do not call out expressly a patented innovation. DVB is indifferent as to whether a patent is essential to its standard (except if it is not available for licence art 14 MoU DVB); our <i>Antitrust Guidelines</i> forbid discussion of IPR and licensing in our technical subgroups. But most of our standards implicate essential patents.
Decision to include patent technologies into a standard	
1.2.1 Issue of over- / under-inclusion	DVB chooses the best available technology for its standards; its technology choices are not based on patents.
1.2.2 Criteria for inclusion decision	DVB does not have a process "to decide on whether . . . to base a standard on a patented technology . . ." Our <i>Antitrust Guidelines</i> forbid discussion of IPRs and licensing in our technical subgroups.
1.2.3 Process of deciding on inclusion	DVB does not have a view on this question.

* Note: these responses are accompanied by a cover letter from the DVB Project setting out DVB's IPR policy, notably as it relates to "negative disclosure", ex-ante negotiation, patent pools, arbitration and Hook IP. DVB has not answered some of the questions in this Questionnaire. This is because DVB has no experience on the issues raised in the question; or because the issue has never been addressed as a matter of IPR policy by DVB; or it is clear that before the deadline for these responses DVB would not find consensus across its membership.

1.2.4 Disputes over inclusion	There is a single example in DVB's history: in the mid-1990s, DVB was offered a choice between two patented technologies for a standard. One was owned by a non-DVB member that did not offer a FRAND licence in conformity with DVB's IPR policy. The technology owned by the DVB member was selected.
Links between standards and patent-protected technologies	
1.3.1 Pertinence of these two situations	The first is a common occurrence (or we don't understand the situation). As for the second, in one standard, DVB fostered a licensing regime that prevented a dominant technology supplier from using standardised technology, owned by it, to compel implementers to take up its other proprietary technology. See <i>MHP Implementation Arrangements</i> , letter n 7 at para 43. DVB's IPR policy does not cover "commercially necessary" patents.
1.3.2 Defences by the patent holder	We understand this question to refer to "reverse patent-stuffing". ("Patent-stuffing" is over-inclusion by action of the patent holder; "reverse patent-stuffing" is over-inclusion of another's SEPs by action of a contributor.) If the holder is prejudiced by "reverse patent-stuffing", it may have available, under the DVB rule of "negative disclosure", the right to withdraw its standard essential patent. (This is a theoretical concern in DVB; no declaration of non-availability has been made in DVB.)
"Best rules and practices"	
2.1.1 Best rules and practices	See letter part A. DVB's IPR policy has worked well.
2.1.2 Trends and initiatives	See letter part A. DVB has recently adopted a rule on transferee obligation art 14.8 MoU DVB.
2.1.3 Differences in SSO rules and practices	Yes. See letter part A.
Key Issue 3 – Patent transparency	
Relevance of patent transparency	
3.1.1 Scope of transparency / Priority areas	DVB generally has a policy of "negative disclosure". See letter part A. This has worked well. DVB has a facility for voluntary disclosure of patents.

3.1.2 Ex-ante transparency	DVB chooses the best available technology for DVB standards. Our “negative disclosure” approach has worked well. Our <i>Antitrust Guidelines</i> forbid discussion of patents and licensing in technical subgroups. (Our experience with the facility for voluntary disclosure of patents is limited; it has not provided a meaningful level of information.) On ex-ante negotiation see letter part A2.
3.1.3 Ex-post transparency	DVB believes that based on its experience patent pooling is a superior form of “ex-post transparency”. See letter part B.
3.1.4 Non-transparent aspects	There could be insufficient transparency of SEPs held by non-DVB members. DVB has created mechanisms to reduce this risk, for example by requiring non-DVB members participating in DVB activities to accept the DVB IPR policy.
3.1.5 Consequences / risks	A non-DVB member (and not otherwise bound by its IPR policy) may bring an infringement action against an implementer of a DVB standard. To the knowledge of DVB, this is not a significant risk.
3.1.6 Cost of coping individually	In its fostering of patent pools, DVB gathers information on SEP holders both within and outside DVB.
Content of the declaration obligation	
3.2.1 Trigger of obligation	<p>There is no obligation under DVB’s IPR policy to make declarations. DVB’s policy generally requires “negative disclosure”. No declaration under “negative disclosure” (that is, declaring that a SEP is not available on FRAND terms) has been made. DVB has a facility for voluntary disclosure of patents. The experience with that facility is limited. See letter part A.</p> <p>Since DVB’s policy is outside the scope of the interests of the Commission in this s 3.2, DVB provides no further answers.</p>
Quality of patent declarations	
3.3.1 Initial accuracy	DVB’s policy is outside the scope of the interests of the Commission in this s 3.3. Our experience with the facility for voluntary disclosure of patents is limited.
Handling of declared information	
3.4.1 Publication	DVB’s policy is outside the scope of the interests of the Commission in this s 3.4. (DVB has limited experience with voluntary disclosure of patents. Declarations submitted are available on DVB’s website.)

Transparency improvements beyond the system of declarations	
3.5.1 General question (how to increase patent transparency?)	In DVB's experience there is little need to increase patent transparency in our "negative disclosure" arrangements. With respect to the premise of the question, DVB sees little need "to strengthen the system of patent declaration" because in its view its present IPR policy has worked well.
3.5.2 Public patent landscaping	In DVB's experience, patent landscaping is beyond DVB's financial means.
Key Issue 4: Transfer of standard essential patents (SEPs)	
Prevalence of transfers and their causes and consequences	
4.1.1 Prevalence	As far as DVB is aware, transfers of DVB-related patents occur among companies active in the sector, generally as part of larger corporate transactions such as mergers and acquisitions.
4.1.2 Issues and consequences	One issue is that under DVB's IPR policy, the new owner in a corporate transaction becomes an "Affiliate", binding all its patents (and not just the newly acquired SEPs) to the FRAND obligation.
4.1.3 Non-practising entities	DVB is not aware of the transfer to NPEs of patents essential to DVB standards. DVB has adopted an amendment to its IPR policy on "transferee obligation". MoU DVB art 14.8.
Effectiveness of the current rules	
4.2.1 Impact of effectiveness	DVB is not aware of this risk within DVB markets.
4.2.2 Specific rules	DVB has adopted a rule on "transferee obligation". MoU DVB art 14.8.
4.2.3 Transfer of FRAND commitment	DVB has adopted a rule on "transferee obligation".
4.2.4 License of right	DVB is not aware of "License-of-Right" issues related to DVB standards.

Key Issue 5 – Patent pools related to standardisation	
Benefits and costs of patent pools	
5.1.1 Target areas	DVB fosters the formation of licensing programmes covering its standards. See letter part B.
5.1.2 Benefits of patent pools	See letter part B. The benefits for SEP holders are: establishing market certainty of royalty burden, encouraging thereby market launch; reducing licensing overhead; reducing litigation costs; associating its SEP with other recognised SEPs. The benefits for patent users are: establishing market certainty of royalty burden, encouraging thereby market launch by users; reducing licensing overhead for example search costs, essentiality assessments, multiple negotiations; reducing litigation costs.
5.1.3 Alternatives to patent pools	DVB is not aware of alternatives.
5.1.4 Difficulties of pool creation	See letter part B. There are many difficulties to pool formation: perceived costs of formation; company policy may encourage bi-lateral licensing or discourage monetization of IPRs; a company may have already entered into long-term bilateral licenses; uncertainty of market readiness; competing views of relative value of SEPs to be included in pool; lack of awareness within a company that it holds pool-eligible SEPs; etc
5.1.5 Costs of pool creation	DVB is unaware of the financial costs associated with pool formation.
Incentive for patent pool participation	
5.2.1 Decision to participate in pool	Other than as described in our response to question 5.1.2, DVB is unaware of the factors that influence a SEP holder in deciding to join a pool.
5.2.2 Incentives for pool participation	As a standards body, DVB actively fosters the formation of joint licensing programme that cover its standards.
Organisational links	
5.3.1 Right moment for pool creation	See letter part B. DVB begins a pool fostering effort after a DVB specification has been completed. However as a preliminary matter, it asks, in a call for technology in the early stage of standardisation, for confirmation that a technology proponent would be willing to participate in fostering.

5.3.2 Role of SSOs	See letter part B.
5.3.3 Role of public authorities	DVB has no view on this question.
Key Issue 6 – Notions of “fair”, “reasonable” and “non-discriminatory”	
Understanding of and experience with “fair” and “reasonable”	
6.1.1 Notions of “fair” and “reasonable”	In 2009, DVB conducted a review of its IPR policy. As part of that review, it concluded, “There is no unique DVB definition or understanding regarding FRAND principles in the DVB context and FRAND is to be interpreted in accordance with the general understanding of the term and the law in the standards environment relevant to DVB.”
6.1.2 Examples of non-FRAND licences	DVB has no experience in this area.
6.1.3 Time required for negotiations	The other questions in this s 6.1 relate generally bilateral licensing, on which DVB has no views. (On ex-ante negotiation, see letter part A2.)
Guidance and mechanisms	
6.2.1 Existing guidance	In DVB’s view, there is an abundance of sources offering guidance on FRAND terms. See our answer to Q 6.1.1.
6.2.2 Unilateral ex-ante disclosure	DVB has a facility for voluntary disclosure of patents. A declarant may provide further information, including a link to its licensing terms. The experience with that facility is limited. On ex-ante negotiation see letter part A2.
6.2.3 Ex-ante setting of parameters	As noted, in rare circumstances DVB members have seen through the licensing arrangements for essential IPRs in parallel with standards work. On ex-ante negotiation see letter part A2. DVB’s <i>Antitrust Guidelines</i> forbid the discussion of patents and licensing in its technical subgroups. This discourages the setting of “parameters” along the lines suggested by the Question.
Portfolio licensing, cross licensing and “freedom to operate”	
6.3.1 Advantages of portfolio licensing	Generally speaking, the patents covered in a licensing programme are all the patents of the pool participants essential to the standard. Thus in a sense the pool license is a “portfolio license”. DVB cannot otherwise respond to this question.
6.3.2 Determination of portfolio license value	DVB cannot respond to this question.

6.3.3 Cross-licenses	The obligation to grant a FRAND licensee under art 14 MoU DVB is limited to those that “submit an equivalent undertaking”.
Overall / cumulative royalty requests	
6.4.1 Pertinence and impacts	The issue was raised during DVB’s 2009 IPR review, but no action was taken
6.4.2 Co-ordination mechanisms	DVB believes that patent pooling is an efficient mechanism for coordination among SEP holders and that it reduces overall costs for implementers and consumers.
6.4.3 Method for allocating value	Patent pooling is an efficient mechanism for allocating value among SEP holders.
Royalty base and value chain level	
6.5.1 Current business practice	In the context of patent pools, DVB has twice addressed this issue, finding in the particular circumstances presented the royalty base proposed did not conform to market realities. DVB cannot otherwise respond to this s 6.5.
“Non-discrimination” principle	
6.6.1 Definition in practice	In 2009, DVB conducted a review of its IPR policy. As part of that review, it concluded, “There is no unique DVB definition or understanding regarding FRAND principles in the DVB context and FRAND is to be interpreted in accordance with the general understanding of the term and the law in the standards environment relevant to DVB.” DVB cannot otherwise respond to this s 6.5.
Key Issue 7 – Patent dispute resolution	
Prevalence and impacts of SEP disputes	
7.1.1 Pertinence of the issue	Because DVB is not aware of any litigation involving its members over their licensing of DVB essential patents, DVB is not in a position to respond to this question. DVB cannot otherwise respond to this s 7.1.
Benefits and costs of dispute resolution mechanisms	
7.2.1 Usefulness of alternative dispute resolution	As part of its IPR policy, DVB has established an obligation on its members to resolve IPR disputes by arbitration under certain circumstances. See letter part C.
7.2.2 Target areas	DVB’s arbitration provision is designed to resolve disputes between members regarding the terms and conditions of the DVB’s IPR policy.

7.2.3 Suitable forms of ADR	Since the adoption of DVB's IPR policy in 1996, it has called for arbitration by the International Chamber of Commerce. DVB's IPR Module has considered changing the arbitral body to WIPO's Arbitration and Mediation Center but has reached no conclusion yet.
7.2.4 Benefits of ADR	The chief benefit of arbitration within DVB's IPR policy is that all disputes are resolved before litigation: there is no known judicial proceeding or arbitration between DVB members over licensing of DVB essential patents. Other benefits are: comparative speed and low cost; the ability to resolve a dispute on a world-wide basis (and not solely within a single territory); less amenable to "forum-shopping"; knowledgeable arbitrators; (for some) confidentiality.
7.2.5 Difficulties and costs	DVB has no particular knowledge of difficulties and costs.
Integration of dispute resolution mechanisms into the standardisation process	
7.3.1 Your experience	On arbitration, see letter part C. DVB's IPR policy has had, since inception, an arbitration provision. To DVB's knowledge, it has never been invoked. DVB believes that arbitration has not been used because: its cost; the availability of licensing from pools (see art 14.9 MoU DVB); perceived complexity; "community-mindedness" of DVB participants; settlement / completion of licensing as a better solution.
7.3.2 Role of SSOs	DVB's IPR policy requires arbitration of IPR disputes under certain circumstances.
7.3.3 Incentives to use ADR	DVB's policy is mandatory (but disputing parties may agree to adopt an alternative form of dispute resolution).
7.3.4 Voluntary / mandatory	DVB's policy is mandatory. DVB is not aware that this has discouraged membership or implementation. The mandatory arbitration of IPR disputes applies to all members under the circumstances described in letter part C.
Setting up such dispute resolution mechanisms	
7.4.1 Specificities of ADR for SEP disputes	DVB has taken as its arbitration provision a typical clause based on ICC models. There are other suitable models, including WIPO's. Tailor-made ADR mechanisms, for example the model recently developed by WIPO for SEP disputes, may also be suitable.

7.4.2 Scope of ADR	Other than to note that the issues that can be raised are described in its art 14 MoU DVB, DVB has no view on this question.
7.4.3 Procedure	DVB has no view on this question.
7.4.4 Timeframe	DVB has no view on this question.
7.4.5 Transparency	Two views have been expressed in DVB: some would confirm confidentiality as a core element of arbitration; others support some limited form of disclosure, for example a redacted version of the arbitral award, as an aid in understanding the panel's methodology and to assist in determining whether the SEP holder and others are meeting their non-discrimination duty.
7.4.6 Forms of ADR	DVB's policy calls for arbitration.
Key Issue 8 – Unwilling implementers and injunctions	
8.1 Defences for the patent holder	If there is no patent pool covering the standard (and when the disputants are each a DVB member), the SEP holder could bring the implementer to arbitration. See letter part C on arbitration. Separately, see letter part D for a discussion of Hook IP, where the Hook IP (a SEP) is used for injunctive relief against an infringer to protect audiovisual content and combat piracy. DVB has no other view on “unwilling implementers” (see n * on the first page of this Questionnaire).
8.2 Protection against abuses	DVB has no experience in this area.
8.3 Prevalence of injunctions	DVB has no experience in this area, in part because there has been almost no litigation based on IPR of DVB technologies.
8.4 Consequences of banning injunctions	DVB has no experience in this area, except to note the value of injunctions in respect of Hook IP.
8.5 Awareness among stakeholders	Among other information sources, DVB has worked to make available information on the guidance offered by EU regulatory authorities.

Annex to response of the DVB Project to the
Questionnaire of the European Commission on
Patents and Standards

Article 14 Intellectual Property Rights

Recognising that the DVB Project is not a standards body, the DVB Project takes the basic position that if specifications made by the DVB group are being adopted as standard by a recognised standards body the IPR policy of that standards body should apply to such standards.

In order to expedite and to support the standardisation process Members commit themselves to the following policy.

- 14.1** Within 90 days from notification of approval of a specification by the Technical Module, each Member shall, on behalf of itself and its affiliated companies, submit to the chairman of the Steering Board a list of all the IPRs owned or controlled by the Member or any of its affiliated companies, to the extent that the Member knows that such IPRs will be necessarily infringed when implementing such specification and for which it will not or has no free right to make licences available.
- 14.2** With respect to any IPRs, owned or controlled by the Member or any of its affiliated companies, under which it or any such affiliated company has the free right to grant or to cause the grant of licences and to the extent that such IPRs will be necessarily infringed when implementing any specification approved by the Technical Module, other than those that are notified under clause 14.1 hereof, each Member hereby undertakes, on its behalf and on behalf of its affiliated companies, that it is willing to grant or to cause the grant of non-exclusive, non-transferable, world-wide licences on fair, reasonable and non-discriminatory terms and conditions under any of such IPRs for use in or of equipment fully complying with such specification to any third party which has or will submit an equivalent undertaking with respect to any relevant IPRs it may have or obtain with respect to such specification.
- 14.3** A Member shall have the right up until the time of final adoption as a standard by a recognised standards body of a specification approved by the Steering Board to declare to the DVB Steering Board that it will not make available licences under an IPR that was subject to the undertaking for licensing pursuant to article 14.2 above, only in the exceptional circumstances that the Member can demonstrate that a major business interest will be seriously jeopardised.
- 14.4** As used in this Article 14, "affiliated company" shall mean, in respect of a Member, any legal entity which directly or indirectly controls, is controlled by, or is under common control with the Member, but only as long as such control exists, where the term "control" means the ownership, directly or indirectly, of more than 50 % of the interest representing the right to vote or to manage the affairs of an entity.
- 14.5** This Article 14 covers only specifications developed and approved by DVB. For the avoidance of doubt, this Article does not affect the specifications or other materials developed by other standards bodies and referenced by DVB specifications.
- 14.6** Any notifications made by Members in connection with this Article 14 shall not constitute notice from any Member to any other Member (or any Observer) or constitute a charge or basis for a charge, of infringement of any IPR or related damages claim of any kind, for any purpose, under any applicable law.
- 14.7** Each Member hereby agrees, on its behalf and on behalf of its affiliated companies, that, subject to clause 14.9 of this Article 14, all disputes with any other Member of these statutes (MoU) regarding solely the terms and conditions of licences arising in

connection with the undertaking in this Article 14 shall be finally settled under the Rules of Conciliation and Arbitration of the International Chamber of Commerce by three arbitrators appointed in accordance with such Rules. Arbitration shall take place in Frankfurt, Germany. German substantive law shall apply. The language of the arbitral proceedings shall be the English language unless agreed otherwise between the Members.

Notwithstanding the forgoing provisions, the Members in dispute may agree among themselves on the method, substantive law, venue and language to be applied to resolve their dispute.

- 14.8** Intellectual property rights subject to article 14.2 shall remain subject to that article after transfer of the IPR to a non-Member and by that transferee to subsequent transferees.
- 14.9** For any specification approved by the Steering Board clause 14.7 of this Article shall come into force two years after the notification referred to in clause 14.1 unless by such date at least 70 percent of all Members or their affiliated companies holding IPRs which have been identified as being necessarily infringed when implementing such specification and subject to the undertaking for licensing pursuant to clause 14.2 (but excluding Members or their affiliated companies, all of whose IPRs were subsequently available under clause 14.3) have notified the Steering Board of a voluntary agreed upon joint licensing programme regarding their identified IPR for such specification.