

**Thematic panel I: Institutional challenges: feasibility of essentiality tests**  
**Summary by the chair**

10:45 – 12:00

Chair: Nikolaus Thumm (Technische Universität Berlin)  
Michael Fröhlich (European Patent Office)  
Christian Loyau (European Telecommunications Standards Institute)  
Monica Magnusson (Ericsson)  
Beat Weibel (Siemens)  
Tim Pohlmann (IPlytics GmbH)

In an environment of IoT and with 5G technologies increasing technological complexity comes along with an increasing number of (new) actors involved (vertical industries, end-users and SMEs in particular). Many of these actors are not professional intellectual property users nor do they have licensing expertise. A systemic approach to decrease general transaction costs, facilitating infrastructure and institutions together with an increase in data transparency and information flow would be of great help.

The general legal incentive structure is to rather declare more standard essential patents with Standard Developing Organizations; that is the very nature of a FRAND declaration. Over-declaration of SEPs is a consequence. This creates legal uncertainty and places a high burden on the willing licensee, especially SMEs and start-ups, to check the essentiality of a large number of SEPs in licensing negotiations. Moreover, uncertainty on essentiality may lead to more litigation and ultimately to sub-optimal diffusion of the standard.

Standard essential patents are based on the self declaration made by right holders on the 'essentiality' of their patents to implement the standard. The European Commission considers reforms to further improve the framework in place for standard essential patents (COM (2020) 760 final). 'For instance, the Commission will explore setting up an independent system of third-party essentiality checks in view of improving legal certainty and reducing litigation costs' (Vice-President Margrethe Vestager, 25.11.2020). Details for setting up an appropriate scrutiny mechanism for SEPs still need to be clarified:

- Which entities are best placed to perform essentiality checks?
- What should be the legal status of an assessment based on a scrutiny mechanism?
- Within a new scrutiny mechanism what is a reasonable level of fees to be charged for carrying out tests and who should pay for it?
- How should the process of setting up a mechanism be started and institutionalized?

The European Patent Office contributed with 32 SEPs examined to the European Commission Pilot Study for Essentiality Assessment of Standard Essential Patents, coming up with a 79% consistency with the reference point (SEPs examined in patent pools) as defined in the study. There was no difference with consistency between cases where claim charts were provided and where not. This outcome was found by the study as slightly more consistent with the reference point than the regular essentiality assessments, noting that the discrepancy was particularly high when no claim chart was provided. These tests were carried out on a 'novelty based' assessment by the patent examiners. They followed a similar approach for essentiality checking as for novelty searches by assuming that if the approved and final standard specification would have been published prior to the filing (or priority) date of the relevant patent and would destroy the novelty of it, the patent can be considered essential to that standard. The conditions of the experiment set a number of constraints, e.g neither communication between the examiners, nor with the patent owners was allowed; Examiners were attributed their files on a random basis not according to their expertise; the supplied technical specification of the standard was not always considered to be the most relevant. These conditions provide reason to believe that in a real-life testing scenario the consistency rate may be higher.

The SEP database at the European Telecommunications Standards Institute (ETSI) has not been constituted as a licensing tool. It is a purely informative tool. Essentiality according to the

ETSI IPR policy is clearly defined: 'When it is not possible on technical grounds to make or operate equipment or methods which comply with a standard without infringing a SEP ... we describe that patent as 'essential''. ETSI itself does not have the technical capacities to carry out essentiality assessment. As a membership driven organization any engagement require approval by ETSI members. There is added value in carrying out essentiality assessments when tests are carried out by a trustful third party.

Essentiality assessments have to come up with robust results in order to be useful for licensing. Robust results can only be achieved on the basis of claim charts provided to the assessment process. Tests need to be provided by an independent and trustful entity. There is no straightforward technical nor institutional solution for setting up an essentiality assessment procedure. Any essentiality assessment process would have to be set up gradually.

Licensing SEPs is not a problem per se as sometimes stated. Rather, it works to the satisfaction of all participants in other fields than mobile communication like video coding or broadcasting. Nor is overdeclaration of SEPs as such necessarily a bad thing. When more patents are declared to be SEP then there are more patents that are available under FRAND conditions. The gold standard for essentiality checks is with the pools. It would be interesting to understand why pools work in one field and don't work in another. When a technical application conflicts with an SEP, essentiality and infringement have to be analysed together, therefore the ultimate essentiality check is with the courts. In the same way as nobody carries out large scale infringement checks, large scale essentiality checks would maybe increase transparency but only produce commercially exploitable results. SMEs in particular need reliable access to the majority of SEP in a field and stable license fees. Setting up specific technology based patent pools can provide tailor made solutions in this respect. Equally can Europe based patent pools provide a strategic competitive advantage for European industries. More studies are required to find out when SEP licensing works, when not and why not and about what would be the right incentives to be provided.

Some studies show that only some 15% of SEPs are truly essential. Artificial intelligence-based automated support functions for essentiality assessment may play an important role as a support tool in doing essentiality checking. Artificial intelligence based checking is not as good as manual checking but can provide in combination with manual testing a very useful tool. To some extent AI tools will always be a 'black box', given that the concrete steps with AI are taking by a machine based on a self-applied learning mechanism, that cannot be reconstructed step by step.