4iP Council's Report on the *'Online Presentation of the results of the pilot project for essentiality assessments of Standard Essential Patents'* **held on the 2nd December 2020.**

1. **Welcome speech by Kerstin Jorna (Director General, DG GROW)**: In this address, Ms Kerstin Jorna reflected upon the continuing challenges in the Standard Essential Patents (SEPs) system. SEPs play a key role when it comes to connectivity and transformation. However, certain problems are increasing due to new sectors entering the digitalized economy, such as energy and automotive.

   Ms Jorna then focused on the accomplishments of Europe regarding patents and innovation. She emphasized that the EU standardization model is excellent and can be the future system for the digital economy. Further, the EU would be best placed to establish a SEP framework with consideration given to both the patent holders and implementors.

   However, Ms Jorna focused on the difficulties of the current SEP system and referred specifically to the difficulty to license and the costly and lengthy litigation proceedings, which are in particular detrimental for SMEs. Further, Ms Jorna mentioned, without transparency the market is dysfunctional. There is a lack of transparency regarding the essentiality of declared patents as users cannot understand whether they are essential or not. The Commission tried in the pilot project to create more transparency (from the technical and institutional point of view).

2. **Nikolaus Thumm (TU Berlin):** Mr Thumm's presentation began by explaining the importance of this study as part of the EU strategic plan. He then focused on the growing relevance of SEPs due to the rise of the Internet of Things. As a result, there are a lot of difficulties for new players who do not have technical knowledge on intellectual property and, in particular, for SEPs. Moreover, they face high cost and complexity. Thus, the aim is to create more knowledge, accessibility, and certainty in SEPs licences.

   Mr Thumm concluded that the essentiality assessment was proven to be possible and effective for optimal diffusion of SEPs.

3. **Carlos Torrecilla Salinas (HoU, JRC B6):** Mr Torrecilla stated that this project was important due to the pervasiveness of digital technology. Interoperability is critical to ensure both growth and cohesiveness of the digital market. Further, SEPs are a key for economic growth and this is why his unit is partnering with DG GROW and DG CONNECT on this issue. One of the results of the research is the pilot project on SEPs in collaboration with DG GROW.

4. **Presentation of study results, with Q&A (Rudi Bekkers, TU Eindhoven):** Mr Bekkers presented the project's results (see summary of report at 4iP Council. The key take-aways from his thorough presentation were the following:

i. Background is the EC Communication 2017.

ii. The pilot project is about technical feasibility (being accurate enough), and institutional feasibility (support of stakeholders, how to do it, etc).

iii. Relevance of the meaning of essentiality and essentiality as a binary concept (a patent is either essential or not essential). At the same time, determining essentiality is a complex process. He clarified that essentiality can only be determined when the standard has been frozen, and the patent is granted.

iv. Essentiality is different than patent validity, patent value, patent enforceability and patent infringement.

v. To determine essentiality attention must be paid to the normative element of the standard as this can vary between SEP bodies. The group could not use commercial essentiality assessments as the process is unclear. The essentiality assessment should be guided by the patent claims, as in the existing assessment mechanisms reviewed by the project in patent pools, which outsource to independent patent specialists. The patent holder prepares some documents with input from the specialists. Claim charts are key to have a high quality of essentiality assessments. Although not perfect, patent pools provide a good system as a reference point to benchmark a determination of essentiality. The use of evidence from court cases, while not a perfect resource, can also provide valuable data. In considering the Japanese Hantei-E system, it is important to note that no-one has yet used this system [see difficulties highlighted in the study and 4iP's summary]. The system has been revised in 2019, to make it more accessible.

vi. On the role of Artificial Intelligence (AI): Mr Bekkers stressed that in the short to medium term AI-based and other automated approaches can be a great assistance tool. However, automatic systems including AI cannot replace humans when doing essentiality tests. AI will face challenges with language and the semantic meaning of claims, and will lack knowledge of implied technologies etc. The lack of reference training sets for AI to develop the necessary capabilities make this option impossible at present . A further possible challenge to these mechanisms will be the willingness of parties to accept this system. He stressed that there are great opportunities for future use of these technologies. For that, one needs to feed AI with information. Without a training set an AI system cannot be created.

vii. Regarding the Landscape study, the ETSI database of potentiality essential patents was used due to its sophisticated dataset and the relevance of the patents. It is important to understand that each body has a different SEP database designed for different purposes. It was noted the ETSI database is not intended for licensing purposes. Moreover, the purpose of the ETSI database is to reduce the risk of members investing in standards for which the technology might not

be available on FRAND terms. It was *not* to have a perfect database for licensing purposes.

viii. Recommendations: it was stressed that SMEs need specific attention, especially if they are a patent owner.

ix. The European Commission should set up a small body to oversee and supervise the system and consider outsourcing the assessment to a third independent party as used in a patent pool. Further, this system can be used to generate a data set for AI.

x. Mr Bekkers addressed the question regarding the legal status of these essentiality tests: they would, according to Mr Bekkers, be regarded as an opinion or advice. Essentiality tests are not intended to pre-empt judicial authority. Another question raised was the issue of how to ensure the independence of assessors. Mr Bekkers suggested that this must be looked at in detail. However, patent attorneys, patent examiners and legal experts have existing criteria and systems to maintain independence.

xi. For the pilot project they conducted over 200 essentiality tests. They had 28 different assessors working at the patent offices. Patent office representatives have, according to Mr Bekkers, the right expertise with the right profile for essentiality assessments. They ended up using assessments conducted by patent pools as reference points, although pools are not a perfect resource. Experts spent 7 hours (some spent 5 hours). They achieved a 84% consistency outcome (compared to the pool results). 67% if the examiner was an engineer (not a patent examiner) and had no claim chart.

5. Round-table discussion *"From participation in the pilot project to next steps":*

i. **Hanane El Harrak (INPI):** This member of an assessor team represented her findings and agreed with the recommendation laid out in the report. She further stated the need for support and training of the assessors in the essentiality assessments.

ii. **Dr Rupert Herzog (DPMA)**: The German patent office gave a detailed report on their finding, stating that the essentiality assessments are similar to the normal job of a patent examiner.

iii. **Michael Fröhlich (EPO)**: The EPO office will not set up an essentiality mechanism on their own but will continue to provide support to this initiative. Some constraints of the pilot: some of the cases did not match the technical expertise of the examiners. Claim charts were useful but sometimes introduced bias and could be misleading, which is not surprising. Examiners were not to speak to each other, which is counterintuitive. Examiners spent 2 to 3 days for assessment. It was also mentioned and explained that the EPO essentiality assessment adopted a novelty test approach. The study develops scenarios, and is helpful for

thinking about the parameters. But use cases need to be clarified, which come with different tradeoffs which may or may not be acceptable.

iv. **Edmund Mangold (BMW):** Lot of disputes going on nowadays. Benefits: independent essentiality assessments of large patent portfolios may give a clear picture of their relative significance. This could help against over-declaration. Opportunity for more neutral discussions, facilitating constructive dialogue amongst stakeholders. It will be interesting to see which steps are to come.

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v. **Mats Sågfors (Ericsson):** Importance of reliability. Trust is crucial for the system to be accepted by SEP holders and SEP implementers. We see it as both an implementer and holder of SEPs. As implementer I want to make sure that poor claim charts do not pass the analysis. As SEP holder I want to make sure that the analysis is impartial and extremely diligent. Going forward: How thorough does the essentiality test have to be? 84% dropped to 67% if no claims charts were used. Much better results can be achieved, as technical specification, technical training, etc can be done. Considering 67%: the number may sound great at first sight, but a patent is essential or not and a coin flip would give 50% reliability. Double blind testing would be helpful. Make assessors accountable. Claim charts: there is no uniform standard to qualify for assessment. Some have detailed mapping but others have barely any information. We need a system to gain trust that it can be useful. But we still need to remember that it only tests essentiality alone. Not about technical value or validity. There are limitations. If the EC decides to move forward, one should be able to change the system to address the failures of the system which are identified.

Rigorous analysis: you need a lot of check points. Analysis from various angles. Claim is not essential until every limitation of the claim is required by the standard. The interpretation cannot be overly broad. Consult the prosecution history. Is the scope a handset or another device? Are the claims directed to the product I am making? Does the standard bear on this implementation? There must be reasoning for every single conclusion that is made.

How long does a rigorous test need? It depends on the scenario we are looking into. It matters what input you have. If you have a good quality claim chart you can save a lot of time for the assessor. If you need to start with a patent family with hundreds of claims, and then develop the proof point yourself, it will take considerably more time. Price differences between pools show how the burden affects the cost.. Looking at licensing negotiation: a good claim chart takes the owner company much more time to prepare.

vi. **Ruud Peters:** The timing issue was not raised in the report (only indirectly). The best results of essentiality tests can only be achieved if done long after the standard is adopted and when many of the SEPs are granted. However, the report also mentions that the essentiality tests can become available much earlier. If the results of essentiality tests become

available 5-6 years after the standard has been adopted, in the meantime licensors and implementers would have already concluded licences. Litigation may already be ongoing. The purpose of essentiality tests is to clarify who owns SEPs and their portfolio sizes. Mr Peters stated that the results of the essentiality test need to be presented sooner and that essentiality checks should not be done on all SEPs as it would not be efficient. He suggested to analyse one patent of the family as well as introducing a regime where SEP holders request accelerated examination.

6. **Closing remarks by Amaryllis Verhoeven (HoU, DG GROW F3):** Ms Verhoeven concluded that this debate will continue, and the solution needs to be a win-win in aim and objective. To achieve this, there needs to be further exploration of reforms of the system. The European Commission just recently adopted the IP Action Plan which considers SEP licensing issues.

   In exploring development of the potential essentiality test, the designs proposed must be based on evidence and on the voices of stakeholders through broad discussions. The Commission plans to run further webinars in the new year where they hope to bring together all kinds of views on how to take the process further.