

CALL FOR EVIDENCE FOR AN IMPACT ASSESSMENT

TITLE OF THE INITIATIVE	Intellectual property – new framework for standard-essential patents
LEAD DG (RESPONSIBLE UNIT)	GROW.DDG1.C.4
LIKELY TYPE OF INITIATIVE	Legislative initiative, combined with non-legislative actions
INDICATIVE TIMETABLE	Q4 2022
ADDITIONAL INFORMATION	https://ec.europa.eu/growth/industry/policy/intellectual-property/patents/standards_en

This document is for information purposes only. It does not prejudice the final decision of the Commission on whether this initiative will be pursued or on its final content. All elements of the initiative described, including its timing, are subject to change.

A. Political context, problem definition and subsidiarity check

Political context

As underlined in the Commission's [intellectual property action plan](#)¹ ('the IP action plan'), intangible assets are the cornerstones of today's economy. An effective intellectual property ('IP') framework needs to strike a balance between promoting innovation by protecting IP on the one hand and not blocking companies' access to IP and to the single market on the other. Of all the types of IP, patents are the most powerful. Patents are key to supporting the EU in its work to build a [European health union](#) and in related initiatives such as the new European [Health Emergency Preparedness and Response Authority \(HERA\)](#), and the [pharmaceutical strategy for Europe](#). Patents affect investment decisions across all industrial ecosystems, such as decisions on the roll-out of green and digital technologies. They are therefore one of the most critical tools in the [EU's industrial policy toolkit](#) and will also play a critical role in the upcoming [European Chips Act](#). Despite the strategic importance of patents, EU patent law is fairly limited and fragmented. EU patent law therefore needs to be recalibrated to boost the resilience of our patent system and support the EU's twin transition (digital and green). The imminent launch of the unitary patent system also makes this the perfect time to enhance EU patent law and facilitate access to critical technologies. The Commission will therefore develop a coherent and balanced package comprising three patent-related proposals. These proposals, announced in the IP action plan, will cover supplementary protection certificates, compulsory licensing and standard-essential patents ('SEPs'). They share common objectives such as: (i) increasing legal certainty and transparency; and (ii) reducing fragmentation and transaction costs.

Standardisation is a key contributor to industrial innovation and competitiveness. Successful standards rest on cutting-edge technologies, which require substantial investments in research and development. Under the rules of many standard-development organisations ('SDOs'), such as the ETSI² and the IEEE³, companies and individuals may patent their technical contributions to a standard. Patents that protect technology essential to a standard are known as 'SEPs'. Any person or company wishing to have their patents included in a standard must commit to license the technology protected by the relevant SEPs to others that may wish to use the standard (people using a standard are also known as 'implementers'). These licences must be granted to implementers on fair, reasonable and non-discriminatory ('FRAND') terms and conditions.

The number of declared SEPs continues to increase⁴, and participation in standards development has also steadily increased^{5,6}. There is also a growing number of new industrial, business and consumer applications using

¹ 'IP action plan', [COM\(2020\) 760 final, 25.11.2020](#).

² European Telecommunications Standards Institute.

³ Institute of Electrical and Electronics Engineers.

⁴ '[Landscape study of potentially essential patents disclosed to ETSI](#)', JRC study (2020), ('[Landscape study](#)'). The study concludes that 'there is strong upwards trend in the number of new patent families being disclosed. Of all current 25,072 families in the ETSI disclosure database, 37% were added in just the last two years'; '[Group of Experts on Licensing and Valuation of Standard Essential Patents 'SEPs Expert Group' - full contribution](#)', Part 2, Section 4.1 ('[Expert Group Report](#)').

⁵ See for example, '[Expert Group Report](#)', Part 2, Section 4.4 and '[Landscape study](#)', which concludes: 'We observe considerable fragmentation in the distribution of companies – or organisations – that disclosed these patents and observe that the distribution is also very skewed'.

standards including SEPs, such as standards for wireless batteries⁷, cloud computing and information security⁸. The increasing number of SEPs – and the increasing numbers of both SEP holders and implementers of standards that include SEPs – has led to a greater need for a smooth and balanced SEP licensing system⁹. A number of new implementers are likely to be SMEs.

In its 2017 Communication¹⁰, the European Commission found that SEP licensing is not seamless and called for a balanced approach based on an increased transparency. The Commission gave guidance to the standards industry and announced a set of actions to analyse the situation. The Commission has thus: (i) conducted a number of studies¹¹; (ii) set up an expert group on the licensing and valuation of SEPs; and (iii) monitored the market situation. While there have been some improvements since 2017¹², there continue to be significant disagreements among stakeholders with regard to SEP licensing¹³. This results in considerable uncertainty at a time when EU companies are facing increasing competition from around the world.

In its IP action plan, the Commission announced that it would further promote transparency and predictability in SEP licensing, including by possibly reforming the SEP licensing system. The European Parliament supported the Commission in its [resolution on an intellectual property action plan](#).

The Commission initiative will complement, take into account, and align with ongoing initiatives such as the review of the horizontal-cooperation guidelines¹⁴ and the standardisation strategy¹⁵.

Problem the initiative aims to tackle

The main problems that affect both SPE holders and SPE implementers are: **inefficient licensing**, including ‘hold-up’¹⁶, ‘hold-out’¹⁷ and ‘forum shopping’¹⁸. Potential implementers, including start-ups and SMEs, may **opt-out** from using the standards altogether, or they may use the relevant standards without a licence, assuming any risks related to SEP infringement. These problems may slow the pace of innovation, hamper development in critical technologies, and delay the scaling up of start-ups and SMEs in the EU.

These problems stem mainly from: (i) insufficient transparency and predictability; (ii) uncertainty about FRAND terms and conditions; and (iii) high enforcement costs and inefficient enforcement.

SEP licensing suffers from a **lack of transparency**¹⁹. Some SDOs²⁰ allow ‘blanket’ declarations which do not specify the patents that could be essential for a given standard²¹. Other SDOs, such as the ETSI, require patent data from anyone contributing an SEP, but once a declaration is made by the SEP contributor, it is seldom updated²². As a result, it may not be clear who owns which SEP, whether declared patents are still essential, and which SEP is essential for which part of the standard.

Declarations to SDOs by those contributing an SEP only express the declarant’s belief at the time of declaration

⁶ This document refers to standards broadly, including both standards and technical specifications. Examples include 2G, 3G, 4G, LTE-A, 5G, C-ITS, C-V2X, DVB, DMR, DECT, TETRA, MPEG 1-4, mp3, Wi-Fi 1-7, DSRC, WAVE, LAN/MAN, Bluetooth, ZigBee, FireWire, WiMAX, Ethernet, IPv4, IPv6, TCP/IP, HTML or eBMS.

⁷ See for example IP Lytics report on ‘[Patent and SEP trends for wireless charging](#)’.

⁸ ‘[Expert Group Report](#)’, Part 2, Section 5.

⁹ ‘[Patents and Standards: A modern framework for IPR-based standardisation](#)’, commissioned by the European Commission, 2014 (‘*A modern framework for standardisation*’), pp. 11 and 110.

¹⁰ ‘[Setting out the EU approach to Standard Essential Patents](#)’, [COM\(2017\) 712 final](#), 29.11.2017.

¹¹ See [webpage on Standard Essential Patents](#).

¹² For example, the ETSI has taken some incremental steps to improve its database and make it more user-friendly. CEN-CENELEC improved its declaration system. Other industrial associations, like the Next Generation Mobile Networks (which brings together mobile network operators and their suppliers) are working on proposals to improve transparency.

¹³ For example, in 2017, industry players under the auspices of CEN-CENELEC attempted to establish business-led guidance in the form of so-called ‘*consortium workshop agreements*’ (CWAs). The attempt failed as SEP holders and implementers could not agree. Not one, but two CWAs were established, one presenting the views of SEP holders and the other one supported by implementers. In the automotive sector, Daimler and some of its suppliers lodged an antitrust complaint against Nokia at the European Commission, whilst Nokia sued Daimler in German Courts for infringement of its SEPs. Additionally, in response to the roadmap preceding the IP action plan, both SEP holders and implementers of standardised technologies confirmed that SEP licensing continues to be problematic (<https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12510-Intellectual-Property-Action-Plan>).

¹⁴ Communication from the Commission – Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal cooperation agreements, OJ C11, 14.1.2011 (‘[Horizontal guidelines](#)’) (notably chapter 7).

¹⁵ ‘An EU Strategy on Standardisation’, [COM\(2022\) 31 final](#).

¹⁶ ‘Hold-up’ refers to a difference between the patent-holders’ pricing incentives ex ante, namely before the standard is set, and their pricing incentives ex post, i.e. after the standard is set.

¹⁷ ‘Hold-out’ refers to a situation where an implementer of a standard refuses to pay royalties to SEP owners until forced to do so by a court. In practice, hold-out is rarely as blatant as a blanket refusal but instead is carried out using various delaying tactics.

¹⁸ Forum shopping refers to the practice of choosing the court or jurisdiction that has the most favourable rules or laws for the position being advocated.

¹⁹ <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12510-Intellectual-Property-Action-Plan>.

²⁰ For example, the WiFi/802.11 standards technical specifications created by the IEEE.

²¹ The patent holder only declares to that they own SEPs for a standard, without disclosing the patent number or otherwise identifying specific patents or claims.

²² For example, to remove declared SEPs that are no longer essential or valid, or to indicate a change in ownership. See ‘[Transparency, Predictability and Efficiency of SSO-based Standardisation and SEP licensing](#)’, CRA study, 2016 (‘*Transparency, Predictability and Efficiency*’), p. 66, Section 5.5.

that a patent may be or may become essential for the standard. There is no ‘quality control’ by independent third parties, unless the patents in question are examined in litigation or by a person assigned by a patent pool²³. According to some experts, only about 25-40% of all declared SEPs are truly essential for a given standard²⁴.

SEP licensing also suffers from a lack of predictability. At the time the standard is adopted, SEP holders may not be aware of all potential applications of the standard²⁵. Therefore, SEP holders usually wait for the market to develop before asking implementers to take a licence. This means that when products are developed and launched on markets, implementers may not have sufficient information as to which – and whose – patents they need to licence and what the royalty fees for this would be.

There is also another problem: current business practices mean that coherent and meaningful information on FRAND licensing terms and conditions is usually not made publicly available²⁶. Both SEP holders and SEP implementers tend to keep confidential the results of their negotiations and agreed licensing terms and conditions – including FRAND royalties. This means that implementers, including start-ups and SMEs, may not be able to factor licensing costs into their business models. It also means that licensors may have a hard time forecasting and collecting revenue.

Courts may adopt different interpretations of both the concept of FRAND itself and the process for negotiating the FRAND terms and conditions. This can be seen, for example, in recent judgments of the German Federal Court of Justice and the UK Supreme Court²⁷.

The efficiency of the SEP licensing system is also affected by the fact that patents are territorial, while standards and the FRAND commitment are global. Since infringement claims are typically met with counterclaims that argue the patent is not valid, SEP holders often enforce their patents separately in each territory – a burdensome and costly exercise, especially for start-ups and SMEs²⁸.

Basis for EU action (legal basis and subsidiarity check)

Legal basis

The initiative could comprise: (i) legislative action based on Articles 114, 118 and/or 103 TFEU; and (ii) non-legislative actions potentially based on Articles 101 (such as the existing guidelines²⁹ currently under review) and 102 TFEU and the regulation that may result from this initiative.

Practical need for EU action

The potential new initiative should complement the existing EU policy instruments³⁰, addressing selected SEP-related issues at EU level. SEP licensing and the value chains affected by it are usually global, while enforcement of SEPs is territorial. We have identified that both licensing and enforcement are inefficient and that there is a need for action at EU level. Action at Member State level could potentially result in divergent interpretations, partly depending on whether businesses in those Member States are predominantly SEP holders or implementers. The new (complementary) initiative should be developed at EU level to: (i) achieve the best balance of interests; (ii) promote uniformity; and (iii) foster single-market solutions. The entry into force of the unitary patent also requires an initiative at EU level, as initiatives at national level will not apply to unitary patents.

²³ [‘Pilot study for essentiality assessment of Standard Essential Patents’](#), JRC study, 2020 (*‘Pilot study’*), p. 14.

²⁴ See generally Goodman, D. J., and Myers, R. A., *‘3G Cellular Standards and Patents’*, International Conference on Wireless Networks, Communications and Mobile Computing, IEEE, 2005, Vol. 1; Stitzing, R., et al. *‘Over-Declaration of Standard Essential Patents and Determinants of Essentiality’*, SSRN 2951617, 2017; Brachtendorf, L., Gaessler, F. and Harhoff, D., *‘Truly Standard-Essential Patents? A Semantics-Based Analysis’*, 2020. All these estimates are based on assessments produced and paid for by commercial parties. It is important to bear in mind that different parties have different views, which may contribute play a role into orient directing the estimations analyses of their experts. Some stakeholders and observers have criticised the existing assessments as inherently unreliable, citing, for example, e.g. the limited workload allocated to the assessment of each patent as compared to the substantially more thorough essentiality assessment carried out by patent pools or during litigation for the patents under dispute. See also [‘A modern framework for standardisation’](#), p. 116, Section 4.2.1.

²⁵ For example, when standards were being developed for 5G, participants in the standardisation process were not considering its use in remote surgery.

²⁶ With the very significant exception of some patent pools [‘Fair, Reasonable and Non-Discriminatory \(FRAND\) Licensing Terms. Research Analysis of a Controversial Concept’](#), JRC study, 2015 (*‘FRAND Licensing Terms’*), p. 21, Section 5.1.

²⁷ Judgment of the German Federal Court of Justice (*‘Bundesgerichtshof – BGH’*) of 5 May 2020, *Sisvel v. Haier*, Case No. KZR 36/17; judgment of the German Federal Court of Justice of 24 November 2020, *FRAND-Einwand II*, Case No. KZR 35/17 and judgment of the United Kingdom’s Supreme Court of 26 August 2020, *Unwired Planet v. Huawei*, UKSC 2018/0214, [2020] UKSC 37.

²⁸ Lord Justice Richard Arnold, presentation at OxFirst 6th IP & Competition Forum on 25 June 2021.

²⁹ [‘Horizontal guidelines’](#), (notably chapter 7).

³⁰ *‘Setting out the EU approach to Standard Essential Patents’*, [COM\(2017\) 712 final](#), endorsed by Council Conclusions 6681/18, [http://data.consilium.europa.eu/doc/document/ST-6681-2018-INIT/en/pdf: ‘Horizontal Guidelines’](#), § 285, currently under review; judgment of the Court of Justice of the European Union of 16 July 2015, *Huawei v. ZTE*, Case C-170/13, EU:C:2015:477; Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights (‘IPRED’), OJ L 157, 30.4.2004, p. 45; Regulation (EU) No 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation, OJ L 316, 14.11.2012, p. 12; Regulation (EU) No 608/2013 of the European Parliament and of the Council of 12 June 2013 concerning customs enforcement of intellectual property rights and repealing Council Regulation (EC) No 1383/2003, OJ L 181, 29.6.2013, p. 15; Communication from the Commission — Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements, OJ C 89, 28.3.2014, p. 3.

B. Objectives and policy options

The aim of the initiative is to promote an efficient and sustainable SEP licensing ecosystem, where the interests of both SEP holders and implementers are considered. The Commission thus aims at ensuring a continued participation in standardisation of innovators³¹, as well as a smooth access to standardised technology by implementers to allow fast and widespread diffusion of the standardised technology. All potential actions would benefit all stakeholders, and they would benefit start-ups and SMEs. The potential actions will consider international issues in compliance with international treaties.

The Commission will promote the EU principles in SEP licensing at global level and cooperate with other regions and non-EU countries, including Japan and the US.

Policy options

The initiative will build upon the three policy pillars listed below. The policy options the Commission presents will be based on a different level of ambition for each of those pillars, and should also be supported by the appropriate legislative and non-legislative instruments.

1. **Enhancing transparency on SEPs**, for example by: (i) requiring the disclosure and update of certain information to improve publicly available information; and (ii) introducing a system for independent third-party assessments of essentiality under the management and control of an independent body.
2. **1. Providing clarity on various aspects of FRAND** by developing guiding principles and/or processes for (i) clarifying the concept of FRAND; (ii) negotiating FRAND terms and conditions; and (iii) determining appropriate level(s) of licensing in a value chain.
3. **Improving the effectiveness and efficiency of enforcement**, for example by incentivising mediation, conciliation and/or arbitration.

C. Likely impacts

An improved SEP framework based on increased transparency, predictability and efficiency would improve the competitiveness of EU businesses, including start-ups and SMEs. Efficient SEP licensing³² may also: (i) facilitate the development of critical technologies³³ and the uptake of digital technologies; and (ii) foster the EU's transition to the green economy. Many standards that rely on SEPs are essential to the success of projects in areas such as: smart manufacturing; smart grids and energy; smart mobility; smart cities; and smart agriculture. All those projects use cutting-edge digital technologies to improve sustainability, for example by fighting climate change. More predictable SEP licensing may in particular benefit the scaling up of start-ups and SMEs that may currently consider it too risky to launch products and services that rely on SEPs as well as those start-ups and SMEs that may capitalise on the incorporation of their innovations into standards.

Although SEP licensing entails significant transaction costs for all stakeholders³⁴, more transparency is likely to lead to cost-savings³⁵. This is important as transaction costs may in particular be higher for new types of implementers in the 'internet of things', including start-ups and SMEs. This is because such implementers may be more fragmented and often lack experience with SEP licensing. A transparent and efficient framework for SEP licensing might also reduce the level of litigation and litigation costs, which may be too high for start-ups and SMEs.

Any new costs as well as benefits stemming from the policy options will be assessed, with particular attention to the administrative burden (from e.g. requirement to disclose information or third party controls).

D. Better regulation instruments

Impact assessment

The Commission will prepare an impact assessment. This assessment will be based on existing studies and consultation results, as well as on evidence from future public consultations and stakeholder events.

The assessment will take account of: (i) all relevant jurisprudence by the Court of Justice of the European Union; and (ii) many studies related to SEPs (please visit our [webpage](#)). The assessment will identify possible evidence gaps and any needs for targeted additional data and/or studies.

Consultation strategy

The initiative will take into account the [feedback received](#) on the roadmap for an IP action plan. Additional stakeholder consultations will feed the initiative, including: (i) feedback received on this call for evidence; (ii) a public consultation; and (iii) targeted surveys for industry players on specific issues. The public consultation will run for a minimum of 12 weeks. The main communication channel will be the '[Have your say](#)' portal on the Europa

³¹ In particular, EU innovators that rely on SEP licensing under FRAND terms and conditions for generating continuously innovative solutions.

³² '[A modern framework for standardisation](#)', pp. 18-19, Section 1.3.

³³ Such as advanced manufacturing technology, mobility, connectivity and robotics.

³⁴ '[Transparency, Predictability and Efficiency](#)', p. 23, Section 2.5.

³⁵ '[Transparency, Predictability and Efficiency](#)', p. 24, Section 2.5.

website.

Why we are consulting?

This public consultation aims at seeking the views of stakeholders on various questions that are important for developing an efficient framework for SEP licensing, namely: (i) transparency; (ii) the concept of licensing on FRAND terms and conditions, including the level of licensing; and (iii) effective enforcement.

Target audience

All stakeholders are invited to provide their views. The Commission is particularly interested to hear the views of SEP holders, SEP implementers, patent attorneys, legal practitioners, academics, patent-pool administrators, industry associations, start-ups, SMEs, SDOs, consultants, policy makers, and any other stakeholders that have experience with SEPs.