

**PRESS RELEASE**

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**Patents and technology standards: The silent engine powering Europe’s digital future**

* **EPO study shows clear link between technology standards and patents using over 5.5M standards development organisations (SDO) documents**
* **New dataset linking 170 000 SDO documents to patents reveals that 37% of declared Standard-Essential Patents (SEPs) cite SDO sources**
* **Unified Patent Court is becoming the dispute forum of choice for SEP litigation in Europe**

**Munich, 14 May 2025** – Technology standards are the silent powerhouses behind today’s digital economy from the smartphone in your pocket to the connected car you drive. The patent system plays a key role in the development of technology standards by incentivising R&D investments and exchange of technical knowledge. In a new study, the European Patent Office (EPO) offers new evidence on the relationship between patents and standards, drawing on a newly compiled dataset from its unique prior-art databases, collected from standards development organisations (SDOs), and provides insights into SEP litigation in Europe and the role of the Unified Patent Court.

“*Technology standards are the backbone of our digital economy, driving innovation and growth, and ensuring seamless connectivity across devices and platforms,”* said EPO President António Campinos. “*As we look to the future, similar standardisation efforts will be crucial for emerging technologies like artificial intelligence and quantum technologies. With five decades of experience, the EPO stands ready to support a balanced and transparent system for Standard Essential Patents—providing the expertise needed to strengthen Europe’s technological leadership and secure its digital future*.”

**Shaping everyday life: the role of SEPs in modern technologies**

Whether it's high-speed mobile connectivity, smart home devices, streaming or high-definition video, standards are fundamental to the technologies we rely on every day. To meet market needs, standards must include cutting-edge technologies that are often protected by patents. These SEPs underpin key standards like 5G, Wi-Fi, and video/audio codecs, enabling secure and efficient device communication. Without the technology available through SEPs, our digital networks wouldn’t function.

According to the latest EPO Patent Index 2024, computer technology, which includes areas of AI such as machine learning and pattern recognition, leads as the technology field in which the most patent applications are filed, while digital communication comes third. The number of connected Internet of Things (IoT) devices is expected to grow by 30 billion by 2030, according to IoT Analytics. McKinsey estimates that this will enable EUR 4.8 trillion to EUR 11 trillion in value globally, including the value captured by consumers and customers of IoT products and services.

**SEPs as a strategic asset for Europe’s economy**

SEPs are not only technical cornerstones but also key drivers of economic growth and industrial competitiveness. By facilitating the seamless integration of cutting-edge technologies, standards that depend on SEPs expedite technology diffusion and market entry. For instance, the WiFi series of standards has been implemented in more than 80 000 products, ranging from tablets and phones to routers, according to the WiFi Alliance. Cellular technologies such as 4G and 5G are implemented in more than 100 million connected vehicles sold by over 80 automotive brands, according to Avanci. Orbis data identifies around 47 500 manufacturing firms globally that potentially use technology standards.

**Increasing transparency and patent quality: stronger connections between standards and patents**

The European Commission is committed to enhancing transparency in relation to patents and technology standards. The EPO’s unique collection of over 5.5 million documents that are produced during the standard development process contributes to this goal. These standards-related documents are used by the EPO during the patent grant process to ensure that patents in standardisation-intensive fields are only granted for inventions which are novel and inventive. In fast-evolving fields like wireless communications and media compression, almost 70% of EPO search reports now include citations to these documents. Such examiner citations create a natural link between patents and standards that the EPO has compiled into a new dataset.

The new dataset, based on over 190 000 European patent applications, includes nearly 170 000 distinct SDO documents referenced, cited a total of almost 418 000 times. The top authors of cited SDO documents are prominent owners of SEPs, such as Huawei, Ericsson, Qualcomm and Nokia.This dataset, which is accessible to the public, enhances transparency and helps stakeholders better understand the growing connection between patents and standards in the innovation landscape. The dataset supports practical use, including methods to predict essentiality from patent-standard traits. The EPO study shows 37% of declared SEPs now cite SDO documents.

**Unified Patent Court: A new era in SEP dispute resolution**

Legal disputes over SEPs have long been fragmented in Europe. But since its establishment on 1 June 2023, the Unified Patent Court (UPC) is emerging as a preferred forum for resolving SEP disputes. In just 19 months, the UPC has heard 23 SEP-related disputes accounting for more than one third of SEP-related disputes with decisions in Europe since it opened its doors – a sign of its growing influence and efficiency. This shift is helping to avoid parallel litigation and enhancing legal certainty. In addition, the upcoming launch of the UPC’s Patent Mediation and Arbitration Centre (PMAC) in late 2025 will provide a dedicated forum for resolving global SEP disputes through alternative dispute resolution and will include a dedicated procedural framework for disputes involving SEPs within its Arbitration, Mediation and Expert Determination Rules.

To further contribute to transparency and public debate, the EPO together with the French IP Office (INPI) is organising a high-level event with judges, practitioners and representatives from government and industry:

[*Patents, Standards and Innovation: Securing Europe’s Competitive Edge*](https://www.epo.org/en/news-events/events/patents-standards-and-innovation-securing-europes-competitive-edge?mtm_camp=pressrelease&mtm_key=pressrelease&mtm_medium=press)

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**Further information**

* [Full study](https://www.epo.org/en/service-support/publications?pubid=1359936?mtm_camp=pressrelease&mtm_key=pressrelease&mtm_medium=press)
* EPO’s [Observatory on Patents and Technology](https://www.epo.org/en/about-us/observatory-patents-and-technology?mtm_camp=press-multi&mtm_key=press-multi&mtm_medium=press)
* Search the [new tool](https://www.epo.org/en/about-us/observatory-patents-and-technology/policy-and-funding/patents-and-standards/patent-standards-explorer?mtm_camp=press-multi&mtm_key=press-multi&mtm_medium=press)
* [Unified Patent Court](https://www.epo.org/en/applying/european/unitary/upc?mtm_camp=press-multi&mtm_key=press-multi&mtm_medium=press)

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**About the EPO**

With 6 300 staff members, the [European Patent Office (EPO)](http://www.epo.org/?mtm_camp=pressrelease&mtm_key=pressrelease&mtm_medium=press) is one of the largest public service institutions in Europe. Headquartered in Munich with offices in Berlin, Brussels, The Hague and Vienna, the EPO was founded with the aim of strengthening co-operation on patents in Europe. Through the EPO's centralised patent granting procedure, inventors are able to obtain high-quality patent protection in up to 46 countries, covering a market of some 700 million people. The EPO is also the world's leading authority in patent information and patent searching.