ETSI: How Europe's fragmented market evolved into a unified force[1]

By Adanna Onah[2]

Europe before ETSI: A Fragmented Market

Before 1990, Europe's telecommunications market was fragmented and dominated by national monopolies. National operators, known as PPTs, worked exclusively with one or two Original Equipment Manufacturers (OEMs) based on cross-licensing agreements. Coordination, where it existed, was limited to the European Conference of Postal and Telecommunications Administrations (CEPT).

The first step toward a European mobile standard emerged in 1981 when Nordic countries launched the Nordic Mobile Telephone system, an analogue standard. CEPT followed in 1982, with efforts to create an analogue GSM standard. But as digital technology rapidly advanced, the group shifted to develop a digital standard in 1984 instead. OEMs, with their deep R&D investments, were invited to contribute to the project.

The European Commission (EC) soon became involved in 1987, during which several operators signed a Memorandum of Understanding agreeing to implement the GSM standard by 1991. Yet the Commission's push for reform caused intense disagreement when CEPT proposed that OEMs license their IPRs for free to interested manufacturers.

The European Telecommunications Standards Institute (ETSI) was founded in response to the EC's 1987 Green Paper advocating for a common market for telecommunications services and equipment across Europe. As part of this effort to harmonise the telecom sector, a new European-wide standards body was established, which would eventually become ETSI. In 1990, the EC issued another Green Paper on standards to create FRAND policies for SEPs related to ETSI standards.

ETSI's mission was clear, but reaching a consensus on an IPR policy was difficult. The organisation's 1992 draft IPR policy was controversial for imposing strict licensing restrictions for Standard Essential Patents (SEPs). These included, among others, licensing by default, maximum royalty rates, and different licensing conditions for EU and non-EU manufacturers. Critics argued that these provisions conflicted with both EU law and international trade rules. This meant in particular the General Agreement on Tariffs and Trade (GATT), the predecessor of the now World Trade Organisation (WTO) agreement.

The Commission responded swiftly, publishing the 1992 General Principles that should govern standardisation. Among the most notable requirements were that: (i) all persons wishing to use

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[2] Adanna Onah is a former IPR Policy Researcher at 4iP Council. The views reflected in this paper do not necessarily represent those of 4iP Council or any of its Supporters.

European standards must be given access to those standards and (ii) standards be available on FRAND terms to all, regardless of whether the user participated in the standard activity.

Tensions continued in 1993, when ETSI adopted a revised version of its IPR policy, which received overwhelming support from 88% of ETSI's members. However, it faced strong backlash from major industry players like Motorola, IBM, Philips, and AT&T. These companies, among others, condemned the policy and threatened to withhold access to vital technologies.

With the opposing views and the Commission raising legal objections, ETSI was forced to withdraw its IPR policy in September 1993.

The Turning Point: ETSI's 1994 IPR Policy

In November 1994, ETSI introduced a new IPR policy formally approved by the Commission. The 1994 policy deleted all provisions limiting a fair reward for SEP owners, in accordance with the 1992 General Principles. The 1994 ETSI IPR policy is largely the same today.

In addition to the IPR policy, ETSI also provided an IPR guide that offers a clearer view of certain aspects of the policy. The policy's central goal was to reduce the risk that SEPs "not be available at all for licensing or not available on FRAND terms and conditions". Equally important was to have a balance between the needs of standardisation and the rights of IPR owners, who should be "adequately and fairly be rewarded for granting licenses under their IPRs". This balance was especially important when creating Europe's first telecom standard, which required significant investments from standard-setting participants.

The ETSI IPR policy is built upon three core clauses:

- Clause 3 (policy objectives),
- Clause 4 (IPR disclosure requirements), and
- Clause 6 (license availability).

Disclosures, Debates, and Defining Boundaries

Clause 4.1 of the ETSI IPR Policy imposes two key obligations on its members. First is to use reasonable endeavors to inform ETSI of essential patents. This obligation applies to all patents, regardless of who owns them, and to all ETSI standards, regardless of the member's involvement in standard-setting. Second is to inform ETSI of any owned patent that might be essential if the member's proposal is adopted into the standard.

However, ETSI does not require exhaustive IPR searches, an issue that was heavily debated between 1989 and 1994. Clause 4.2 of ETSI's IPR policy explicitly states that members are not obligated to conduct IPR searches.

Requiring IPR searches would be impractical for two reasons. First, at an early stage of standardization, it is unclear whether a submission will be adopted as it is or modified. Second, members may also file patent applications on the submissions, which must be examined by patent offices. Even if a patent is eventually granted, it remains uncertain whether it will still be essential to the final approved standard. On this, the requirement to have knowledge of all possibly relevant patents in the course of technical standardization “does not exist”.

Additionally, commercial terms are not discussed within ETSI's technical committees as this was never ETSI’s intention. Patent owners and prospective licensees must negotiate outside ETSI. Moreover, these committees are composed of technical specialists, not patent licensing professionals. Discussing commercial terms within technical committees would thus introduce unnecessary complexity. Such debates could delay the technical process and undermine ETSI’s goal of choosing the best available technology for the standard.

The N&M Handbook

The N&M Handbook is often referenced in discussions about interpreting the ETSI IPR policy. However, its usefulness remains questionable. The Handbook was initially drafted based on the 1993 ETSI IPR policy. Though it was revised for 1994, it still has major flaws. Therefore, it's not a reliable guide for the 1994 ETSI IPR policy.

Understanding the distinction between the Handbook and the 1994 IPR policy is crucial for understanding the current ETSI framework. The Handbook was written by two ETSI members privately for their consulting practice, and not as an officially authorized ETSI document. Moreover, it was written with a heavy focus on the 1993 version of the policy. Since the 1994 policy is completely different from its predecessor, it is important not to confuse the two versions.

FRAND and the Right to Injunctions

Questions about how injunctions are treated under the ETSI IPR policy have persisted for years. A review of the 1994 policy shows that there are no restrictions on injunctions. At the outset, injunctions have been considered a “core fundamental right” for intellectual property owners. They remain a “distinct possibility” under the current ETSI IPR policy. Looking at the evolution of the policy, any temporary limits on injunctions in the 1993 policy were all removed in the present 1994 version.

Some critics argue that injunctions should be restricted in FRAND licensing, given that IPR owners are prepared to license their patents. However, many implementers use patented technologies before agreeing to license with IPR owners, resulting in patent infringement. Depriving the IPR owner of the right to an injunction would leave it with little else to defend itself against infringement.

The EC’s 1992 communication recognized IPRs as exclusive property rights that cannot be expropriated “for purposes of using the technology as basis of a standard”.

Licensing Limits: Who Receives Rights? Finished Products vs. Components

Clause 6 of the ETSI IPR policy, which is most important, ensures that licenses are available for standard essential patents on FRAND terms. When ETSI’s Director General becomes aware of an essential patent, they must take measures to obtain a written commitment from the IPR owner. This commitment should confirm the IPR owner’s willingness to grant licenses under the SEPs on FRAND terms. Particularly, the phrase “to at least the following extent” sets a minimum standard for what an IPR owner must be prepared to grant. This sets what an IPR owner “must give” as preparedness to license on FRAND terms and conditions.

Significantly, according to ETSI’s minimum licensing requirements, the SEP holder must be prepared to grant licenses covering finished products. This is because Clause 6 requires that SEP holders must be prepared to grant licenses covering the manufacture, sale, and use of “equipment.” This connects to Clause 15, which is important for definitions. It defines “equipment” as any system or device fully conforming to a standard.

But can a component manufacturer demand a license? No. An IPR owner may be prepared to grant a license to a component manufacturer, but there is no obligation to do so. Standardized technology must be made available to be used by different players in the value chain without undue restriction on their operations. However, component manufacturers cannot dictate how IPR owners structure their licensing programmes.

In the IPR policy drafting process, every definition was carefully considered to ensure a fair outcome. For example, in the telecommunications world, “systems” typically refer to infrastructure equipment, while “devices” refer to items like phones. Thus, if the licensing commitment is for “making equipment”, it clearly relates to end-user devices. This is confirmed by the idea of a "license to make" which includes so-called “have made” rights. “Have made” rights refer to cases where the licensee is entitled to customized components made by a third party only for incorporation into equipment. If equipment also referred to components such as chips, “have made” rights would make no sense.

“[R]easonable endeavors” should be taken to notify ETSI of essential patents to the standard, even third-party patents. Nevertheless, the ETSI guide offers no definitive procedure for determining whether a third-party patent is in fact essential.

FRAND: “Fair, Reasonable, and Non-Discriminatory”

“Fair,” “reasonable,” and “non-discriminatory” are intentionally undefined in the ETSI IPR policy. This is the best approach. It allows parties to negotiate in good faith the set of terms and conditions that serve their best interests while still being considered FRAND. Most crucially, they must consider all relevant circumstances of a specific case at the time of negotiation.

Additionally, “FRAND is not defined by one particular royalty rate in certain set of circumstances”. Even if one applies the same circumstances, different negotiating teams are unlikely to arrive at the same result on what they would consider to be FRAND. FRAND therefore does not refer to one specific price point but rather to a range. Ultimately, only a court can decide whether a particular offer or agreement meets FRAND.

Regarding “non-discriminatory,” this was one of the most intensely debated topics during policy development. The 1993 policy included a “most favored nation” clause, which was completely deleted in the 1994 policy due to heavy debate. This clause would have required SEP owners to offer implementers terms that were at least as favorable as those given to later licensees. Existing licensees could accept the same conditions or renegotiate, effectively having the opportunity to reopen negotiations.

As a result, "non-discriminatory" no longer means that all licensees should have the same terms and conditions. "Non-discriminatory" should be understood in connection with "FRAND" as a whole.

A Hard-Fought Consensus

The collective effort in ETSI has resolved disagreements and shaped technological progress. The 1994 ETSI IPR Policy remains strong evidence of the power of consensus-building and standardisation.

Abstract

This short paper summarizes key information from the 4iP Council's webinar "The ETSI IPR Policy: Origins, Intent, and Misinterpretations (Explained by Insiders)". In this webinar, Ruud Peters and Dr. Bertram Huber offer their insights into the origins and evolution of the ETSI IPR Policy. As contributors to its development in the early 1990s, they provide a historical perspective and informed interpretation of the Policy. The discussion examines several topics:

- The transformation of European telecommunications from a fragmented market before the 1990s to the establishment of unified standards.
- The journey that led to the 1994 ETSI IPR Policy, contrasting it with the withdrawn 1993 version. It also examines the critical factors behind the policy's success.
- The guiding principles of the ETSI IPR Policy, particularly disclosure obligations, licensing commitments, and accessibility requirements.
- The careful balance achieved between safeguarding intellectual property rights and ensuring widespread access to standardised technologies.

Through their firsthand accounts, the speakers illustrate how this policy has led to technological progress in telecommunications. From 2G to 5G, it has created a fair and sustainable balance between parties' interests.

Keywords

- Component manufacturer
- ETSI (European Telecommunication Standards Institute)
- FRAND (Fair, Reasonable, and Non-Discriminatory)
- Have-made rights
- Injunctions
- IPR (Intellectual Property Rights)
- License
- Most Favored Nation clause
- N&M Handbook
- OEMs (Original Equipment Manufacturers)
- Policy
- PPT (National telecom operators)
- SEP (Standard Essential Patents)