



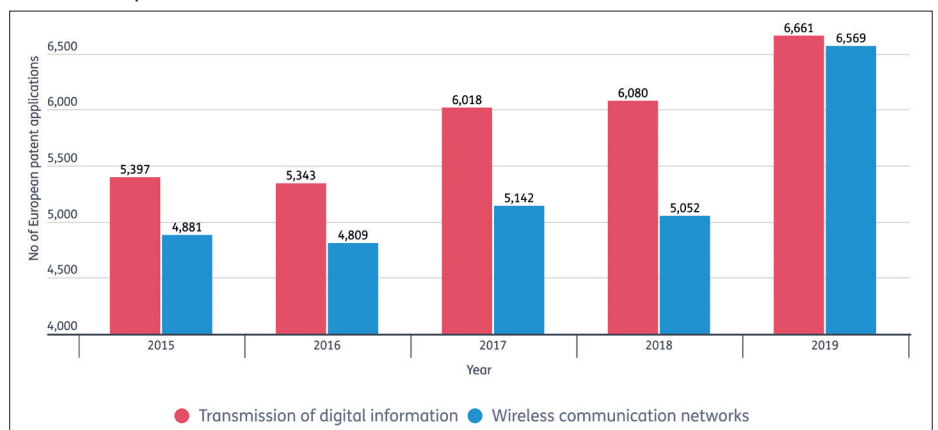
From smartphone wars to IoT wars?

Standardisation developments are heavily focussed on 5G technologies, which is reflected in the number of patent applications being filed. **Kelda Style** reviews the numbers

Patents have been an integral part in driving the development of mobile telecommunications standards. While earlier standardisation focussed on mobile phones, the later standardisation work has looked to broaden the applicability beyond mobile phones. The current efforts in 5G extend to areas including internet of things (IoT) applications as well as vehicle to everything (V2X) applications.

The standards relating to mobile phones developed rapidly as did the handsets themselves, creating a very lucrative market. It was not unusual for some consumers to replace their handsets annually or even more frequently, and new consumers from emerging markets were keen to join the mobile phone revolution. Who can forget the excitement that surrounded the launch of each new iPhone? The driving force behind the smartphone patent wars was a desire to get a share of the revenue associated with the market. At the peak of the smartphone patent wars the major players in the market were suing or being sued, or even both. At the same time, there was an increase in the number of inventions being

Figure 1: High-growth areas of European patent applications¹ in subfields of digital communication during 2015-2019
Source: European Patent Office

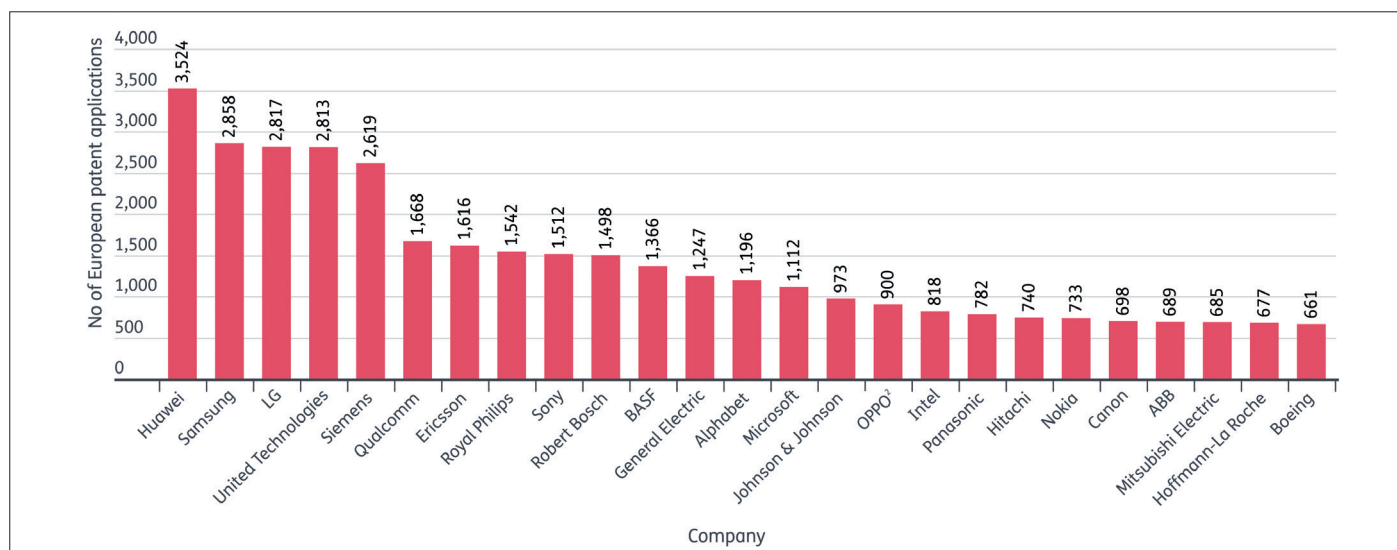


made as no one wanted to be left behind in the next standard. These inventions were of course being covered by patents applications, the number of which also increased.

A typical smartphone adhering to a standard will involve technology covered by very many patents. Some patents cover more than one version of a standard. As smartphones become more complex, the

number of patents covering a single device has increased dramatically. The most sought-after patents are standard essential patents (SEPs) which cover a part of a standard. Particularly valuable are those patents which are determined to be SEPs in court proceedings. A device complying with a particular part of a standard covered by the SEP will be determined to be an infringement. A holder

Figure 2: Top 25 applicants by number of patent applications at the EPO in 2019
Source: European Patent Office



of the SEP is obliged to license the SEP to third parties in accordance with fair, reasonable, and non-discriminatory (FRAND) terms. Indeed, a current trend in smartphone litigation is to ask a court in one jurisdiction to set FRAND terms for a global licence. It is fair to say that the case law in this area is still developing.

While the volume of smartphone litigation has reduced, it has certainly not gone away. This is probably a reflection of the maturing of this market and the establishment of licensing arrangements between the parties.

Current standardisation developments are heavily focussed on 5G technologies, which is reflected in the number of patent applications being filed. Figures from the European Patent Office (EPO) for 2019 show a rise in patent applications relating to digital communication of almost 20% between 2018 and 2019 (see figure 1), within which applications relating to digital communications networks saw a rise of almost 30%. Of the top 25 applicants by number of EP patent applications in 2019, the top three (Huawei, Samsung, and LG) are all telecoms companies. See figure 2.

Nokia v Daimler

5G, with its additional focus on areas such as IoT and V2X, will bring together different industries which have different customary practices. This is well illustrated by the current clash between *Nokia v Daimler* in Germany.

For those not familiar with the dispute, Nokia holds a portfolio of SEPs relating to communications standards. In 2016, Nokia notified Daimler that Daimler were implementing some of these standards by telematics control units (TCUs) provided by suppliers including Continental and installed in Daimler's vehicles. Interestingly, this dispute is not primarily about infringement but rather

about who should be licensed.

Nokia sought a licence agreement with Daimler. However, Daimler and Continental (who supply the TCUs) contended that Nokia should license the SEPs to Continental directly. In 2019 Nokia filed a number of infringement actions against Daimler in Germany. Subsequently, an injunction for preventing sales of Daimler vehicles in Germany (under the Mercedes brand) was issued by a regional German court, on the grounds that Daimler did not seek a FRAND licensing offer.

Since the initial decision, the German courts have referred several questions to the Court of Justice of the European Union (CJEU). The main question put to the CJEU is who Nokia should be obliged to offer a licence to under FRAND terms. In essence, the CJEU has been asked to decide on whether there is an obligation of a SEP owner to license suppliers of a component that infringes a SEP rather than a manufacturer who utilises the component.

The pending decision of the CJEU has potentially enormous implications in the development of the automotive industry, and indeed other industries when considering just how many devices are becoming "smart" and able to communicate with other devices in the internet of things.

At the same time, the EU Commission has set out an IP action plan for the EU called, 'Making the most of the EU's innovative potential – an intellectual property action plan to support the EU's recovery and resilience'. In that plan, the EU sets out its aim to improve transparency and predictability in SEP licensing.

Additionally, and according to the plan, the Commission aims in the short-term to facilitate industry-led initiatives to reduce frictions and litigations among players in specific sectors. The Commission is also considering reforms

to further clarify and improve the framework governing the declaration, licensing, and enforcement of SEPs. The Commission will for instance explore the creation of an independent system of third-party essentiality checks in view of improving legal certainty and reducing litigation costs.

Summary

The connectivity provided by 5G joins together many different industries and it appears inevitable that there will be friction between the traditional players in the mobile phone sphere and those players seeking to introduce connectivity to a wide range of products, from cars to fridges. It remains to be seen if the courts will be used as the primary forum for disputes or if alternative industry-led initiatives become the norm as mooted by the EU Commission.

Footnotes

1. European patent applications include direct European applications and international (PCT) applications that entered the European phase during the reporting period.
2. Guangdong OPPO Mobile Telecommunications.

Author



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