The role of licensing in 5G/6G

Developing mobile networks is a high-cost, low-margin business.

Players in the 5G/6G infrastructure market invest close to 20% of our revenue in R&D (for Nokia, that is €4.5B/year). By contrast, most big tech companies spend less than 10% of their revenues on R&D. Thus, developing mobile networks is incredibly R&D intensive compared to other technology industries.

Margins are low because products are standardized which commoditizes margins. Indeed, when the US Attorney General suggested that US tech companies should take a controlling interest in Nokia and/or Ericsson due to the importance of 5G to US national security, the Financial Times reported the response of Cisco’s CEO Chuck Robbins, who stated that building the infrastructure for 5G mobile networks — a big part of the European groups’ operations — did not fit Cisco’s financial profile or strategy, Mr Robbins said that Nokia and Ericsson have “appropriate business models” that are better suited to the lower-margin nature of the 5G infrastructure market. (See attached FT Article).

Cisco rules out approach for Nokia

The high costs, and the low margins help to explain why Motorola, Nortel, Siemens, Lucent, Alcatel, and others are no longer in the business of developing mobile networks.

Licensing revenue is critical to Nokia’s business.

Accordingly, regulatory intervention which imposes additional costs on SEP owners, or which curtails licensing efforts, is problematic for Nokia, Finland, and Europe. Unfortunately, DG GROW’s SEP initiative does both. And what is concerning is that there is no objective evidence to justify this damaging regulatory intervention.

A threat to the EU’s technological sovereignty, strategic autonomy and leadership in global standards

DG GROW’s initiative threatens to undermine Europe’s ability to compete in future cellular standards development and will leave the EU more reliant on the technology of others. It could even drive standardisation work away from Europe. While Europe is currently home to leaders in the cellular standards, EU regulatory intervention and changes to the framework for SEP licensing risk making European forums for standardisation less attractive. This too would undermine European leadership in these critical technologies.
Ultimately, if the Commission approves DG GROW’s misguided proposal this would be detrimental to the open standards ecosystem that delivers huge economic and social benefits, including to European consumers. If the EU proceeds down this path, both licensing and standardisation could fragment.

In these circumstances, the initiative appears to be inconsistent with key EU strategy/policy initiatives, including ensuring the EU’s technological sovereignty, strategic autonomy, competitiveness, and European leadership in global standards.

DG GROW’s proposal, which will curtail access to European courts (including the new Unified Patent Court), also conflicts with the position adopted by the Commission in the EU’s WTO complaint against China. When announcing the WTO complaint last year, Commissioner Dombrovskis spoke of the need to protect the EU’s vibrant high-tech industry, an engine for innovation that ensures Europe’s leading role in developing future innovative technologies. The Commissioner underlined the right of EU companies to seek justice on fair terms when their technology is used illegally.

Indeed, the mandatory registration and mandatory conciliation aspects of the initiative may run contrary to the EU’s own Charter of Fundamental Rights, the WTO’s TRIPS Agreement, freedom to contract and the international norms of arbitration. They also risk undermining the EU’s own effort in creating the UPC with a dedicated mediation and arbitration centre.

A one-sided proposal that will delay licensing, create uncertainty, and deprive European innovators of fair and reasonable compensation for R&D investments

Nokia’s dual role, as both a developer and implementer of open standards, gives us a unique and even-handed perspective. We believe in a fair licensing approach that strikes a balance between the needs of those who develop and contribute technologies to standards and those who implement and use them.

DG GROW has previously stated that its initiative seeks to create a fair and balanced licensing framework and a system for licensing SEPs that is transparent, predictable and efficient. However, a preliminary review of the leaked draft Regulation reveals that this not the case. On the contrary, the proposal is wholly one-sided, with all of the additional obligations, burdens and costs falling solely on SEP owners rather than implementers.

In this context, it is notable that there is nothing in the draft Regulation to address the issue of hold-out – where bad faith implementers opportunistically avoid or delay taking a licence and paying for innovative technology that they are already using.

In fact, the measures set out in the leaked draft Regulation (several of which are intended to delay SEP holders of access to the courts in Europe to protect and enforce their IPR) will only serve to exacerbate hold-out, making it harder to license SEPs and delaying/reducing royalty payments. This will undermine incentives to invest in critical R&D and to contribute to the development and improvement of open standards.

The evidentiary basis for regulatory intervention

Implementers complain of hold-up, the use of SEP injunctions to obtain supra-FRAND royalties. SEP owners complain of hold-out, the refusal of implementers to conclude FRAND licenses.
The objective way to determine if there is a problem is to look at European Court cases. Those cases show many instances where implementers refuse or delay to take FRAND licenses (see, e.g., Unwilling SEP Licensees: Hold-out Strategies - IP Europe). There are no cases where SEP owners have used SEP injunctions to obtain supra-FRAND royalties. As a practical matter this can’t happen as courts will only grant injunctions under Huawei v. ZTE if the SEP owner makes a FRAND offer.

It should be noted that the European Parliament asked the Commission to collect objective evidence of hold-up and hold-out, but it has not. And the Commission has not yet answered a more recent question from MEP Schwab on hold-out (see IP Europe on Innovation in the European Parliament - IP Europe).

Why is the Commission proposing regulations to address hold-up and not hold-out? We understand from Director General Kerstin Jorna that the reason is that the Commission is relying upon complaints. Complaints are inherently subjective and not objective. Thus, when DG GROW consulted with industry, they asked questions such as “Do you consider that the current legal framework for SEPs provides a sufficient legal protection against ‘hold-up’”? Of course, the answer from implementers is yes there is a problem. For them, SEP licensing is a problem because it is a cost. Thus, they naturally will flag hold-up as a problem. But this is not objective evidence of a problem.

It is important to have in mind that there are only a handful of companies that contribute to the cellular standards, whereas there are many companies that implement them. Thus, if you survey industry, the results will suggest that hold-up is a problem, while the reality (based upon objective evidence such as court cases) is that hold-out is a problem. The fact that the Commission is acting upon such subjective evidence suggests an element of regulatory capture.

This is particularly important in circumstances where we have seen the US adopt a significantly less interventionist policy approach – they will review conduct by SEP holders and standards implementers on a case-by-case basis to determine if either party is engaging in practices that result in the anticompetitive use of market power or other abusive processes that harm competition (see https://content.mlex.com).

Unfair allocation of costs

According to the leaked Impact Assessment, it is expected that the majority of the cost-burden associated with the proposal will fall on just two companies – Nokia and Ericsson. There has not been an appropriate assessment of the financial implications of the proposal on Nokia. Indeed, the full extent of the cost-burden is currently unclear - unfortunately (like many of the salient details) this will be left for delegated or implementing acts. For example, who will be responsible for financing the infrastructure which will need to be built at the EUIPO,?

Specifics of the Proposal

Turning to the specifics of the proposal, under the draft Regulation, the Commission would introduce: (1) a new mandatory SEP register; (2) mandatory essentiality checking; (3) a mandatory but non-binding
conciliation procedure; and (4) a means of determining an aggregate royalty (cap). Each of these aspects would be supervised/managed by the EUIPO which to date has little competence or experience in carrying out the new tasks that would be delegated to it.

Despite repeated requests, at no stage in the process did DG GROW share its thoughts with or seek input from stakeholders on the substantive proposals despite their complexities and far-reaching ramifications. The result is something which is divorced from the technical/legal exigencies of patent licensing; meaning that the proposals are unworkable.

**Registration**

For example, as discussed, the proposal for a SEP register fails to recognise that patent portfolios are dynamic, not static, and that real-world licensing takes into account both present and future patents that may become essential to a continually evolving standard, such as 5G. It is simply not possible to bar compensation for future patents which will necessarily be unregistered for some period of time. This ignorance of licensing practicalities demonstrates the need for consultation with industry on the Commission’s specific proposals.

**Essentiality Checks**

As regards essentiality checks, these are not the panacea that DG GROW appears to believe. See, for example the recent 4iP Council Research Paper: [https://ssrn.com/abstract=4400790](https://ssrn.com/abstract=4400790). Indeed, if essentiality checking were the key to efficient and frictionless SEP licensing, patent pools (which are required as a matter of competition law to conduct such checks to confirm that the technologies in the pool are complimentary) would be successful from the outset, yet there is clear evidence to the contrary. In the automotive sector, for example, essentiality checking (and even a published royalty rate) did not result in rapid and early licensing via the Avanci pool. Equally, other jurisdictions may decide to create similar processes and obligations for their patents. This would place a significant additional burden on SEP owners. In certain jurisdictions essentiality checks may be (mis)used to devalue the portfolios of European SEP holders.

In any event, there is no objective justification for why this aspect of the proposal goes far beyond the findings and recommendations of the European Commission’s Joint Research Centre, see: Bekkers, R., Henkel, J., Tur, E., et al., Pilot study for essentiality assessment of standard essential patents, Publications Office of the European Union, 2020. Moreover, we note that a number of the provisions of the proposed essentiality check mechanism are contrary to the recommendations in this report:

- DG GROW has not worked with other regions do develop a harmonized approach (Recommendation A);
- DG GROW has not engaged with stakeholders on their specific proposals (Recommendation B);
- DG GROW has ignored all three proposed scenarios for essentiality checks, i.e., one which requires no SEP owner participation, one which requires only voluntary SEP owner participation, and one which is a combination of the two (Recommendation C);
- DG GROW has not taken into account the licensing and business models of SEP owners (Recommendation D);
- DG GROW has not designed a self-financing system where all stakeholders contribute to the cost (Recommendation F);
- DG GROW has not utilized the EPO or national patent offices which have critical expertise but instead relies upon the EUIPO which has no patent expertise (Recommendation L); and
- DG GROW has not engaged in a constructive and collaborative approach with all stakeholders on these proposals (Recommendation P).

**Conciliation**

A key concern in respect of Mandatory conciliation for non-binding FRAND determinations is that SEP owners cannot protect or enforce their IPRs before going through this process. This will delay licensing and restrict access to courts in the EU (which is a key driver for licensing/settlement), including the UPC. In the meantime, disputes will move to other (less impartial) jurisdictions. The EU courts until now have been the leaders in guiding other courts on these issues but would become less relevant with this requirement.

This aspect may also fail to meet the EU’s legal obligations of fair access to justice and protections of IPRs. Jurisdictional questions could arise, and fragmentation of licensing from this process, which seems tied to EU patents; whereas it is recognised that FRAND generally constitutes a global patent portfolio licence, as this is industry practice. Transactional costs may therefore escalate for both licensor and licensee.

**Aggregate Royalty Caps**

As discussed, the process for agreeing/setting aggregate royalty caps raises competition law concerns and is open to abuse, particularly in circumstances where “10% of all contributors” could instigate such a process. In any event, agreeing/setting aggregate royalty caps is also unlikely to be of any practical benefit unless representative of a balanced view based on market realities. Until a market is formed it is very difficult to judge what may be fair and reasonable.

**FRAND Commitment**

In addition, the leaked draft Regulation, misstates the FRAND commitment. Notably, Recital 3 appears to suggest that the FRAND commitment imposes a ‘license to all’ obligation on SEP-holders. This is incorrect. The IPR policies of SDOs do not seek to determine specifically who should or should not be licensed, or a level in a supply chain at which licensing should be done, or if anyone at all should be licensed. Most simply limit their policy licensing commitments to devices which fully implement / comply with their standards. This is, for example, how ETSI’s IPR policy operates.

Importantly, the issue of licensing in the supply chain has already been addressed by courts in Europe and other jurisdictions. Notably, in *Nokia v Daimler* the Mannheim Regional Court stated that a patent holder has the right to choose at which level of the supply chain to enforce its patents and from whom to request licences and added that competition law does not restrict such a right. Specifically, the Court considered that approaching only the end-device manufacturer for a licence was reasonable. Likewise, in *Sharp v. Daimler* the Munich Regional Court ruled that Sharp was “not obliged to grant a licence to
the suppliers. It must only grant them access to the standards affected by their SEPs”. The Court held that licensing at the end-product level, combined with so-called “have made” rights, provides component manufacturers legally secure access to standardised technology. Consequently, the Commission appears to be ignoring case-law from the Courts in Europe.