

"If you think the last smartphone patent war was bad, just imagine what the next wireless war could look like when the internet of things (IoTs) and 5G gets deployed in a major way throughout the global economy," warns Joseph Siino, president of US-based Via Licensing. "It could be even bigger and more costly. But it doesn't have to go that way. Patent pools can help to stop the next war before it happens."

Although Via Licensing operates several patent pools, it's not only Siino who argues for their increased use. A growing number of companies – not to mention experts on standard essential patent (SEP) licensing and the European Commission itself – agree. They argue that collaborative licensing structures like patent pools offer the transparency, efficiency, and independent scrutiny of patents that are so desperately needed to counter the growing threats of hold up, hold out, and increased patent litigation that loom on tomorrow's 'everythingwireless' horizon.

Two forces are driving the risk of a new and costly round of patent wars. First, wireless technology is now being deployed in a host of new industries like cars, industrial equipment, and even refrigerators and other home appliances that have no prior experience or infrastructure for licensing in this complex technology. Whenever one combines a hugelylucrative new business opportunity with inexperience and uncertainty - as was the case a decade ago at the dawn of the smartphone era - one gets a perfect recipe for high-stakes patent brinksmanship and litigation.

Besides the diffusion of wireless technology into entirely new industrial sectors, the imminent arrival of 5G technology also greatly raises both the economic stakes and the prospects for patent conflict. Large and very powerful companies from every corner of the world are already claiming that their proprietary patents are "essential" - all without any independent verification whatsoever of their self-interested claims of patent essentiality. In the words of the November, 2017 European Commission Communication on SEPs1 noted, "This scenario places a high burden on any willing licensee, especially SMEs and startups, to check the essentiality of a large number of SEPs in licensing negotiations."

Although the owners of these 5G patent portfolios generally lack any independent verification of their claims of essentiality, they are certainly not shy about demanding royalties. Many, in fact, will demand 1% or 2% or more of the price of every product that employs 5G technology. Consider the implications of potentially dozens of patent owners each demanding 1% or 2% or more of the price of every 5G-enabled product. You don't need a calculator to see that this is a maths problem that could add up to a whole new round of patent litigation.

"5G technology players make no secret of the ambitious monetisation targets they have for their patent portfolios," notes Jim Beveridge of the Innovators Network, who is also an advisor to the European public-private partnership ERTICO, in an article last year. "As the 5G digital data pipe becomes attached to different industry segments, so the royalty train follows it."

Indeed, the wireless IP rights challenge is a veritable Tower of Babel. "Although the [technological] standards may be clearly defined, the management of the royalties isn't," Beveridge explained. "It's a mindboggling, complex riddle to work out who to pay what, when, and to whom, while avoiding being sued. This is particularly taxing for the SME that is setting out to develop new innovative products, applications and services."

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So how do patent pools offer an alternative to this wireless patent chaos and the threat of a new round of patent wars? According to Via Licensing's Siino and others, it's because they solve the three fundamental problems associated with traditional bilateral patent licensing: complexity, cost, and lack of transparency.

"Take complexity," says Siino. "Today's products are vastly more complex than even a couple of decades ago. Products like smartphones have large numbers of patented components, which means that product makers face a huge challenge in trying to license each component from their individual owners. Bilateral negotiations for these rights are frequently a time-consuming adversarial process that imposes large transaction costs on the parties. They also offer a lot of

opportunities for hold up by rightsholders – or conversely, for hold out by product makers. Bilateral licensing seems almost tailor-made to give rise to high-cost patent litigation."

Patent pools, however, bundle together complementary patents into a one-stop shopping opportunity. As examples, he cites the data compression protocols for transmitting high-density digital audio content that make up Via's Advanced Audio Coding (AAC) patent pool, and the 3G and 4G wireless patents that make up Via's Multigenerational (MG) patent pool, the latter of which offers two separate verticals – mobile devices and connected cars. Other organisations such as Avanci and Sisvel also operate patent pools in mobile, connected cars, and IoTs.

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What all these have in common is that they enable product makers to acquire the rights needed at a huge cost saving compared to licensing each patent right individually from disparate owners. They also reduce the opportunities for any one patent owner to hold out for exorbitant fees, as well as the chances that litigation may result from a stalled negotiation. This is especially important for SMEs, see box for more detail.

For rights owners (licensors), meanwhile, patent pools offer significant benefits. Not the least of these is that rights owners receive appropriate compensation for their innovations without having to engage in lengthy high-cost negotiations with multiple prospective licensees all over the world – at least a few of whom are likely to refuse to pay compensation until a costly lawsuit is filed that demonstrates the patent owner's seriousness.

The second problem associated with bilateral licensing is cost. Until recently, there was no hard data on the economic advantages of patent pools. But in a landmark 2017 study,² Robert Merges, professor of law and co-director of the Berkeley Center for Law and Technology at the University of California at Berkeley, and Michael Mattioli, associate professor of law at Indiana University's Maurer School of Law, finally quantified the cost savings of patent pools.

They researched the economics of Via's AAC audio patent pool and determined that the 800-plus product maker licensees in that pool saved over \$600m in costs compared to what they would have spent had they licensed all the separate audio rights bilaterally from their individual owners. That \$600m goes right to the licensees' bottom lines — not to mention all the savings in time and high-risk litigation expense that often comes with bilateral licensing.

Many patent pools, including Via's as well as those operated by Avanci and Sisvel, openly publish their royalty rates. This is precisely what the European Commission's Communication recommended when it cited, "the need for a higher degree of scrutiny on essentiality claims. This would require scrutiny being performed by an independent party with technical capabilities and market recognition."

It is also a major reason the European Commission advocated the

Key takeaways for in-house counsel

For in-house counsel considering the potential benefits of patent pools to their own companies, several questions should be asked:

- Does the pool offer transparency in pricing and consistent terms for all similarly-situated licensees, as the European Commission recommends? Many patent pools do, but apparently not all. According to ERTICO advisor Beveridge, the Velos Media video patent pool requires prospective licensees to sign an non-disclosure agreement before they are even told the terms of the licence.
- Does the pool offer discounted rates for SMEs? Check to see if the pool you're considering makes special accommodations that enable SMEs to grow with the programme. Check the track record of success of any patent pool you're considering. Is it trusted and respected by the industry?
- Does the pool have a global presence and experience in international accounting, tax, legal, and regulatory issues.
 Pools most be able to comply with the competition laws and regulatory norms of the regions in which they operate.

greater use of patent pools by businesses. "[Patent pools] can address many of the SEP licensing challenges by offering better scrutiny on essentiality, more clarity on aggregate licensing fees, and one-stop shop solutions." It added, "For IoT industries, and particularly SMEs, pools for key standardised technologies should be encouraged."

Patent pools appear to have been widely-embraced relatively widely by European businesses, which have often led the way in developing the groundbreaking R&D found in advanced products all over the world. Yet in many cases, the product makers employing these European innovations and IP lie outside of Europe, and absent patent pools, it can sometimes be difficult for European firms to receive adequate compensation for their innovation. Efficient collaborative licensing mechanisms like patent pools thus help to ensure that European innovators capture the true value of their R&D investments.

As patent pools increasingly gain adherents, it should be remembered that they are hardly a new phenomenon. They are a proven private market solution to the costs and risks of patent licensing that has delivered solid results for more than 160 years – ever since the world's first patent pool was formed in the US to end the sewing machine patent wars of the 1850s.

Perhaps they are best described as a new (old) way to overcome product roadblocks.

Footnotes

- 1. https://ec.europa.eu/docsroom/documents/26583
- 2. https://scholarship.law.berkeley.edu/facpubs/2882/

Author



David Kline is a journalist, IP expert, and author of *Rembrandts in the attic* from Harvard Business Press, his latest book, *The intangible advantage*, is an IP textbook for non-lawyer business leaders.