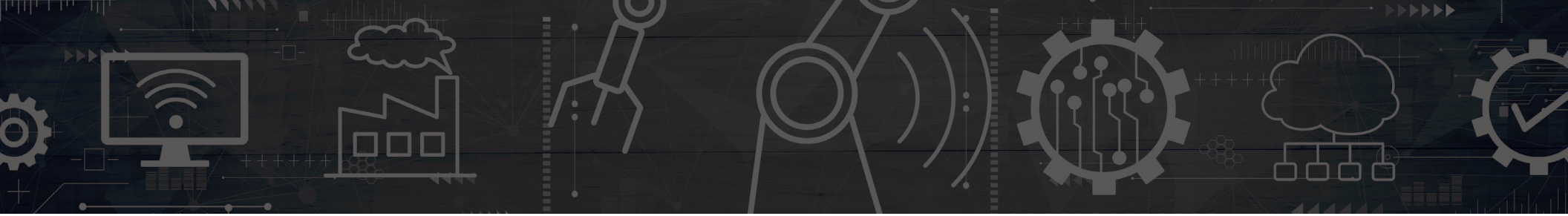


An Insider's Guide to the Operations and Methods of NPEs:

**The Impact of Economic Distress on
Patent Availability to NPEs**



Introduction

As we weather the current health and economic crisis, WIT believes that the intellectual property legal community will, in many ways, chart the course for how litigation and administrative actions will be conducted going forward. We look ahead to areas of importance to our clients. One of those areas is the impact of the still-developing shifts in investment and our economy on NPE activity.

Introducing WIT's e-book series, "An Insider's Guide to the Operations and Methods of NPEs," which will take a close look at the impact of COVID-19's economic fallout on the patent market and how an NPE reacts to a variety of settlement-related stimuli.

This series will highlight the lessons learned by our Vice President of Operations, Michael Connelly, who created and ran an NPE for seven years that covered dozens of district court cases and multiple cases before the ITC (including being the subject of the first 100-day review). He was also a partner in the IP practice at a major law firm.

In Book One, we will focus on the NPE acquisition outlook for 2020 in light of the ongoing economic crisis. For this series, WIT has canvassed a number of the major players in the NPE space to gain insight into key questions:

- What works?
- What makes an NPE and the people involved concerned, worried, or truly scared?
- What threats are effective, and which are ignored?

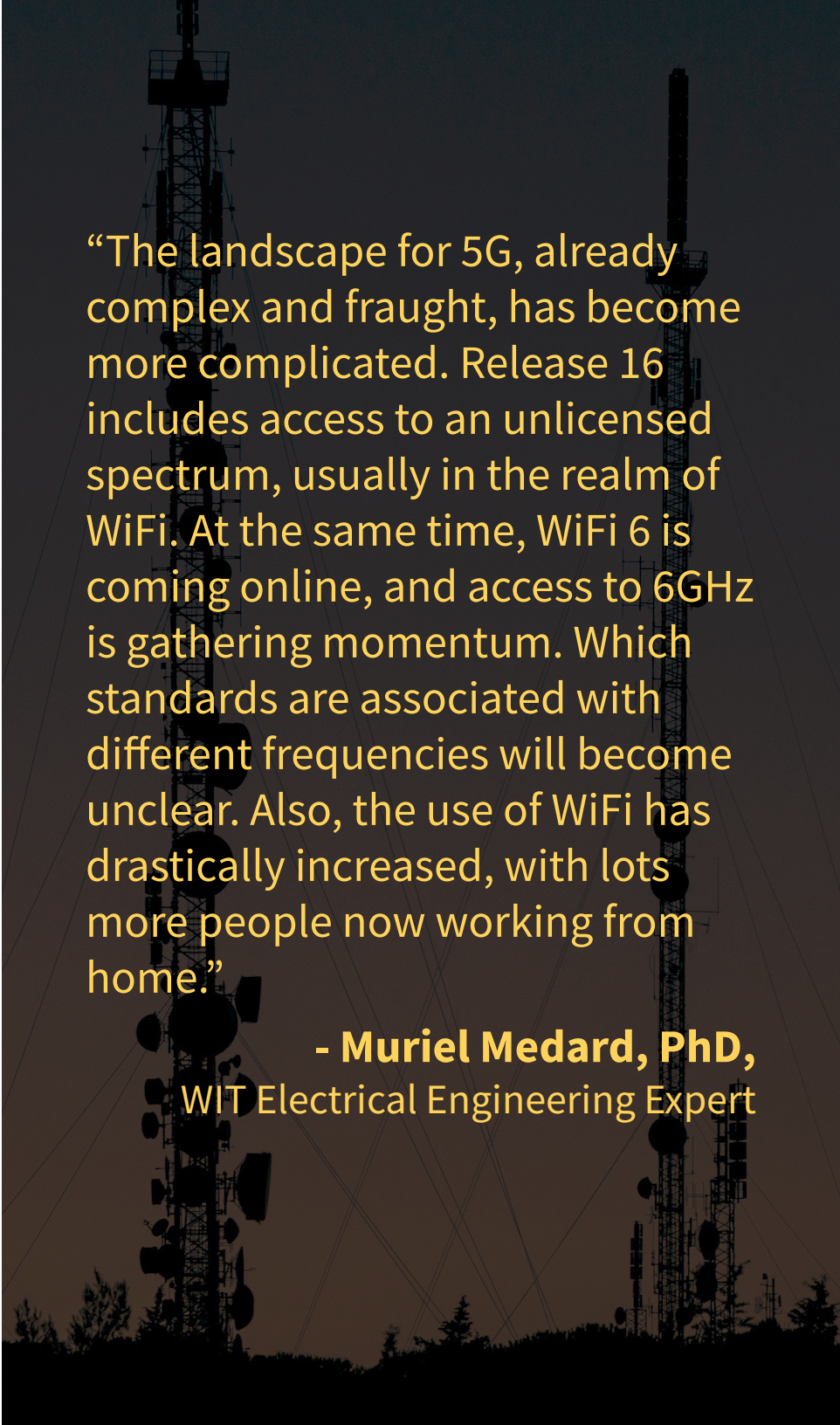
The answers to these questions will provide insider tips about the characteristics of NPEs.

Looking back on past recessions, we identify areas of opportunity. Like the 2007/8 financial crisis, where we saw shifts in investment strategy and the financial abandonment of once-bright industries, we anticipate a flood of intellectual property to the market. Three sectors where we see opportunities are within wireless communications, automotive technology, and digital streaming, areas where WIT has been deeply engaged in over the last few years.

Wireless Communications

While not winning as many headlines as 5G, WiFi6 will remain a major player for wireless royalties. As previously covered in our partner briefings, certain features in the 5G standards could result in the more consistent use of WiFi than existed under 4G. Under 5G standards, WiFi licensing could have a significant impact on the valuation of WiFi patents and breathe new life into portfolios that previously appeared exhausted. WIT expects the NPEs in this space to be actively evaluating their portfolios for new, renewed, or missed licensing and litigation opportunities. Dr. Muriel Medard, an award-winning professor at MIT and esteemed pioneer in electrical engineering, points out that both the user base and traffic volume over WiFi has dramatically increased during the current crisis—both of which play significantly in damages calculations.

For years, the 4G/5G market has been dealing with several entities that the industry considers to be non-practicing licensing entities (even if each of those terms gets a bit stretched). Many of these entities are characterized by sizable existing portfolios, significant cash reserves, and internal expertise. The inclusion of these entities into 3GPP and certain patent pools has already caused considerable anxiety. We expect the current climate to exacerbate all those concerns significantly.

The background of the right side of the slide features a dark, atmospheric photograph of several communication towers. The towers are silhouetted against a dark sky, with some lights visible on the structures. The overall tone is professional and tech-oriented.

“The landscape for 5G, already complex and fraught, has become more complicated. Release 16 includes access to an unlicensed spectrum, usually in the realm of WiFi. At the same time, WiFi 6 is coming online, and access to 6GHz is gathering momentum. Which standards are associated with different frequencies will become unclear. Also, the use of WiFi has drastically increased, with lots more people now working from home.”

- Muriel Medard, PhD,
WIT Electrical Engineering Expert

The Fragmenting 4G/5G Market

Before the COVID-19 fallout, the fragmenting of the 4G/5G market had begun with the ostracizing of Huawei. We expect this to get worse over 2020 as countries increasingly isolate (particularly, to and from China). Concerns in the industry are over a geographic technology divergence, not unlike the pre-4G, CDMA/GSM period. While the world is moving to 5G, geographic distancing will almost inevitably lead to this divergence. Supplier relationships, local requirements, and customer desires can cause technology variations. More directly, the companies that control different locations will tend to favor their solutions. Standards in the cellular industry are broad and allow for options.

In Illustration 1, technologies A, B, C, and D are part of the 5G standard. The importance of each of these technologies may vary greatly depending on geographic location.

While 5G is being used worldwide, the reality is that parts of 5G are being regionalized. Relatedly, WIT has been looking at a number of issues such as:

- Setting a worldwide FRAND rate under such a technology divergence;
- The impact to the growing trend of worldwide litigation when a company which has substantial IP holdings in technology D no longer has the US courts available to them; and
- The standards bodies have halted work despite companies continuing to push forward on manufacturing and design.

Let's look at these issues from an NPE's viewpoint and take for example a Chinese-based supplier of chipsets in China who holds worldwide IP rights in technology A. If it cannot profit by selling parts outside of China (or at least not as effectively), it will look for ways to profit from the non-Chinese IP. Similarly, this same Chinese entity may hold rights in technology C that it is no longer using and may decide to offload.

Many of the NPE or NPE-adjacent players in the cellular space are well-positioned to take advantage of this situation. Cash reserves and internal knowledge allow for quick decisions on portfolios, further strengthening, or broadening their positions in the market.

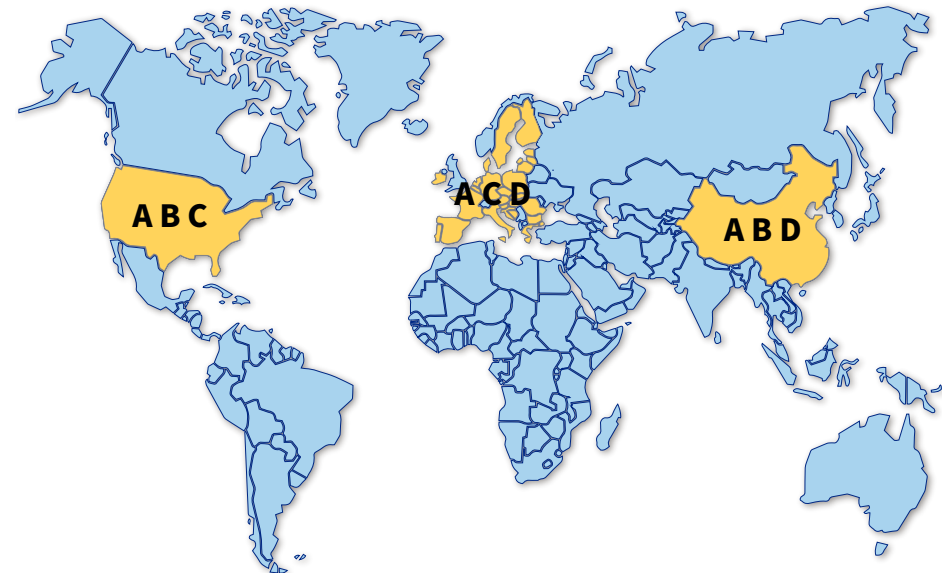


Illustration 1

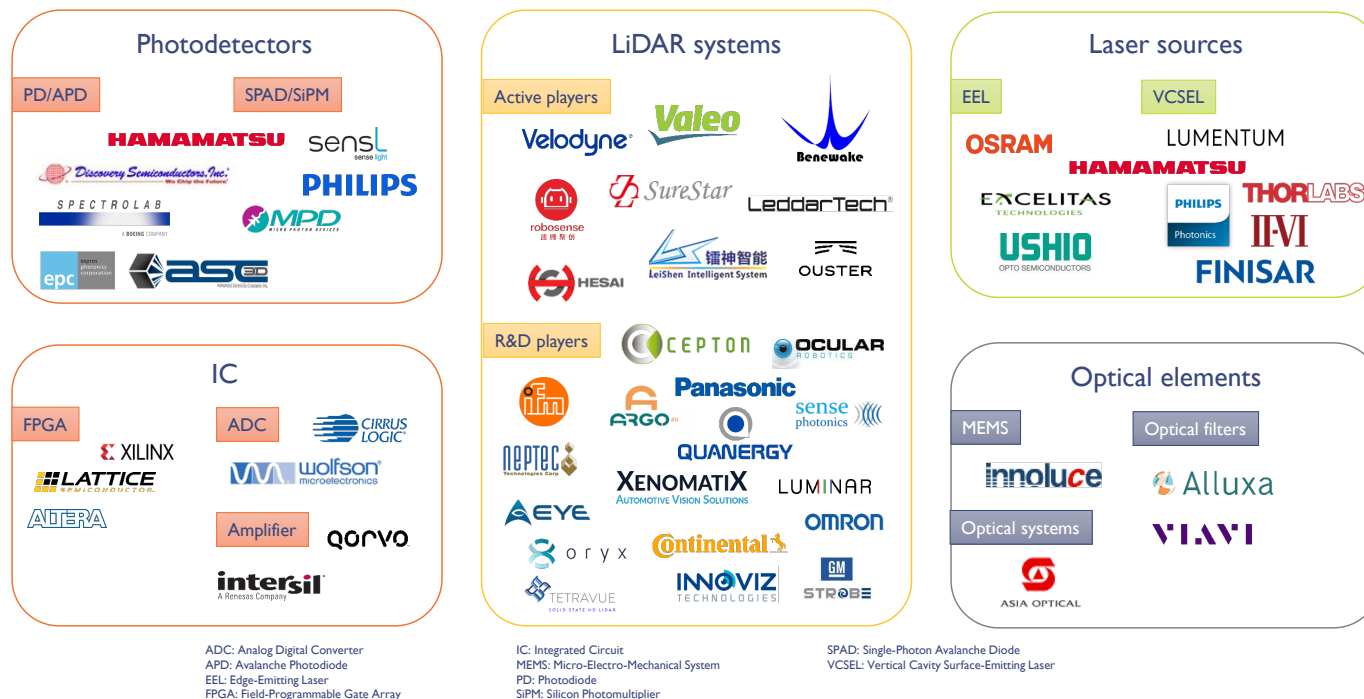


Failures in the 4G/5G Market

The COVID-19 crisis has significantly impacted manufacturing and shipment in the cellular industry on both a component and end-user level. The impact of this will take time to understand, but we may see a significant shift in supply arrangements and product delays. This outcome will inject significant intellectual property into the market. As manufacturing and supply arrangements are disrupted and modified, there will be winners and losers. The losers will be looking to profit in whatever way they can, including monetizing their intellectual property.

Automotive Technology/ADAS

Over the last few years, automated driving has been the darling of a significant piece of the venture community and a focus for both the automotive and tech industries. Even before the current crisis, WIT had already positioned 2020 as an inflection point for the automated driving technology industry in which a first round of winners and losers would be crowned. A straightforward example of this is the LiDAR market.




Credit: http://www.woodsidecap.com/wp-content/uploads/2018/04/Yole_WCP-LiDAR-Report_April-2018-FINAL.pdf

LiDAR

Prior to 2020, 80+ LiDAR technology companies had received funding from a variety of private investment sources.

As the new year began, it was assumed that investors would begin to focus on no more than 5-10 primary companies. The bursting of the LiDAR “bubble” was going to happen—made worse by the fact that the industry is still not hitting the price targets requested by the Tier 1 suppliers.

Now the COVID-19 economic crisis is hitting, and it is industries like LiDAR that will be hit hard. Traditional capital sources were not as available before causing a heavy reliance on venture-style funding. A venture fund that was previously centered on ADAS-related technologies may shift focus at this point. Medical is looking more attractive, while sales of new automobiles are expected to suffer (in addition to the inevitable price depression that will occur). LiDAR is just one example—this same investment and sourcing decision will be made across the ADAS space over the coming months. WIT does not expect the industry to come out without significant damage. This means that companies will fail, and their intellectual property will be available.



“In the aftermath of the 2008 financial crisis, numerous tech companies failed as a result of supply chain disruptions. Supply chain executives who don’t act on warnings signals to re-negotiate contracts will face similar dire consequences following the current COVID crisis.”

- Robert Handfield, PhD,
WIT Supply Chain Expert

Semiconductor

The semiconductor market may also see a significant shift. The problems of supply chain disruption over Q1 of 2020 are well known, and their impact will no doubt cause shifts in allegiance and numerous failures—all of which may dump patents into the market.

Over the last 1-2 years, most of the growth in the semiconductor market has been in AI, though automotive has seen steady growth, especially in the commodity market of sensors. Importantly, most of the investment over the last two years (more than 50%) has been in China. With travel restrictions, supply disruptions, and other negative consequences, it is likely that a number of these semiconductor suppliers will fail to meet shipments or be unable to secure the necessary funding. Even in the best of times, commodity semiconductors are always at risk of supplier changes.

WIT is keeping a close watch on whether investment will continue to favor niche semiconductor markets at the same level. Depending on the impact of the adoption rate on technologies like ADAS, investment may stagnate or disappear in certain sectors. Again, when this happens, intellectual property will come into the market, and the NPEs will be waiting.

Streaming Media

The quarantine procedures have caused an abrupt shift to work and play from home. This has naturally led to significant spikes in viewership for services like Netflix, Disney+, Spotify, and others. This has been accompanied by sales of devices like Roku. It has also led to a download surge in video conferencing and remote work solutions. While some of this may be temporary, it is at least presenting an incredibly attractive damages picture.

As an example, Netflix has seen use spikes of 33-40% in some areas, and new subscriber numbers are expected to exceed estimates significant for at least Q1 and Q2 of 2020. These numbers impact any reasonable royalty analysis and make the streaming market look even more tempting to an NPE.



Conclusion

The NPE market has and will continue to operate mainly in the shadows. Whether it's the purchase of individual patents or a major corporation sliding patents through multiple entities to an NPE, rarely is this loudly announced outside of the occasional NPE press release. That being said, at this point, it is no mystery where an NPE can obtain patents. After major economic downturns, there is a natural swing towards asset acquisition—it is no different with intellectual property. We expect patent acquisition activity to increase, and we expect NPEs to be major players.

To stay up-to-date on the latest trends affecting the legal community, follow us on LinkedIn and Twitter at @WIT_Legal.

Stay tuned for the next ebook in our series, “NPE Structure and Acquisition Weak Points,” that will highlight the typical danger areas that NPEs hope will never be noticed.



Michael Connelly

VP of Operations

About the Author

Michael Connelly, an experienced litigator in front of the ITC, was the architect on several investigations involving NPE petitioners. One of his entities was the subject of the first hundred-day review.

Michael has been in patent litigation for over 20 years – both in private practice and running a successful patent monetization group. He has practiced in front of the ITC as counsel for both petitioner and respondent, and he has crafted investigations brought by his patent licensing entities. Currently, Mike is the Vice President of Operations at WIT Legal, LLC. and consults with law firms and corporations on a variety of licensing and litigation issues, including NPE defensive strategies and 4G/5G licensing and litigation strategies.