# FRIENDLY FIRE: HOW THE BIDEN ADMINISTRATION'S INNOVATION POLICY IS UNDERMINING U.S. NATIONAL SECURITY





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#### FRIENDLY FIRE: HOW THE BIDEN ADMINISTRATION'S INNO-VATION POLICY IS UNDERMINING U.S. NATIONAL SECURITY

By Kristen Osenga

Although the United States has long been a leader in innovation and an active participant in standards development activities, recent policy developments may discourage American companies from continuing to engage in these activities. These developments include difficulties in obtaining patent protection, government overrides of patent rights, and effectively prohibiting injunctive relief for patents covering inventions incorporated in technology standards. Because national security is intimately tied to innovation and competition, perhaps in unexpected ways, these policy developments are not just harming innovation, but also America's ability to defend itself. In effect, the United States is harming its national security through the friendly fire of its own policies.

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#### I. INTRODUCTION

Amid the various conflicts occurring around the world and the recent campaign against the global pandemic, there is quieter struggle occurring in the innovation space. It is not the usual race to the Patent Office or battle for greater market share; it is a struggle for control over the direction of innovation in several key industries. While this may seem minor in comparison to the other wars being waged right now, the issue of technological control will have extraordinary impact on the question of whether the United States will be able to defend itself and aid others in future conflicts against a foreign adversary or a virulent disease. This is because the national security of the United States depends on its ability to maintain a position of leadership and control over innovation.

The United States has long been considered a strong country and a leader in national security. Part of this dominance is due to its excellence in and direction of innovation. This success has allowed the country to protect itself and assist other countries for decades. Recently, however, the Biden Administration has adopted or proposed policies that will harm the United State's position of prominence by driving American companies away from the innovative activities that underly and support our national security. Essentially, our national security is being injured by friendly fire.

This short essay is inspired by the LeadershIP 2022 conference, held on April 5, that brought together scholars, policy makers, and industry experts to discuss cutting-edge policy issues at the intersection of innovation, intellectual property, and competition.<sup>2</sup> One striking aspect of the daylong conference was the pervasiveness of national security as an issue — and not just during the panel entitled *Innovation, Standards, and National Security*. The relationship between innovation, competition, and national security is critical and needs to be better understood by policy makers. Policies that inhibit innovation and competition in ways that jeopardize our national security need to be dismantled. It's time to cease the friendly fire.

#### II. THE RELATIONSHIP BETWEEN INNOVATION & NATIONAL SECURITY

The relationship between innovation and competition is well-understood, even if the correct balance between policies affecting the two are routinely debated.<sup>3</sup> The link between innovation, competition, and national security, however, is less obvious. The idea of national security tends, at least for most people, to evoke thoughts of military prowess. And, to be sure, the excellence of a nation's military is a significant and important part of its national security. However, national security also relies ever increasingly on technology – and technology depends on innovation and competition.

There are two obvious and direct connections between national security and innovation. First, innovation, and specifically innovation in new technologies, is a key economic driver and a thriving economy is required to support national security.<sup>4</sup> Second, modern military operations depend extensively on technology. For example, the United States Department of Defense relies heavily on telecommunication innovations, such as 5G, for everything from controlling drones, to targeting smart munitions, to commanding troops all over the world.<sup>5</sup> As inconvenient as our civilian lives are when we forget our phone or find ourselves with no network service, current military actions would be even more constrained in the absence of technology.

A less recognized link between national security and innovation is the issue of control, and specifically the ability to control the direction and development of key technology areas. Many technologies that are implicated in national security are also subject to standard-ization – from agriculture, to artificial intelligence, to autonomous vehicles, to the internet of things ("loT") and telecommunications. These technologies protect our healthcare systems, our transportation hubs, our food and other supply chains, and our economy – not to mention our military. Standardized technologies are also typically areas of great innovation, through the collaborative efforts of standards development

<sup>5</sup> See e.g. Department of Defense, *DOD Announces \$600 Million for 5G Experimentation and Testing at Five Installations*, Press Release (Oct. 8, 2020), available at https://www.defense.gov/News/Releases/Article/2376743/dod-announces-600-million-for-5g-experimentation-and-testing-at-five-installati/.



<sup>2</sup> See https://ipleadership.org/events/leadership-2022/.

<sup>3</sup> See e.g. Elizabeth Webster, *The Nexus Between Innovation & Competition: Will the New Digital Technologies Change the Relationship?*, CPI ANTITRUST CHRONICLE (Feb. 2020), available at https://www.competitionpolicyinternational.com/wp-content/uploads/2020/02/CPI-Webster.pdf; Koren W. Wong-Ervin, *The FTC Hearings on IP and Innovation: Key Testimony, Economic Lessons, & Recommendations for Further Study*, 33 ABA ANTITRUST 43 (Spring 2019), available at https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3281452.

<sup>4</sup> See e.g. Michele Nash-Hoff, *What Does the Economy Have to Do with National Security?*, INDUSTRY WEEK (Mar. 21, 2012), available at https://www.industryweek.com/finance/software-systems/article/21954333/what-does-the-economy-have-to-do-with-national-security.

organizations ("SDOs"), and competition, and competition, as the collaborators within the SDO seek to have their technology incorporated into the standard.

Active participation in SDOs affords the ability to both control the direction of innovation in a particular technology space as well as understand where potential vulnerabilities may exist within these technologies. In some respects, the issue of control is even more important to national security than economic or operational reliance on the technology. If a military or economic adversary were to gain control over critical aspects of any of these important technologies, it would have an entry point into the very systems that we rely on for our national security. Access that could shut down our supply chains, cripple our economy, or bring our transportation systems to a standstill would have devastating effects on our country's ability to defend itself and aid others.

While this sounds like the plot of a dystopian novel or film, entry points of this type based on "enemy" control have already been seen at least once in modern times. Telecommunication companies are required to implement "back doors" in their equipment to allow law enforcement agencies to access mobile phone networks, but are also required to ensure that they themselves do not retain access. In 2020, the United States announced that Huawei Technologies, a Chinese company, had built its equipment to retain for itself access to these networks and the ability to obtain personal and sensitive information from anyone using its equipment. A number of economic and strategic allies of the United States, including Germany and the UK, have allowed the use of Huawei equipment in building out their nations' 5G networks.

Other countries have recognized the value of controlling the direction of innovation. Economic and strategic adversaries, such as China and North Korea, are actively supporting their countries' innovative companies by investing in the development of critical technologies and supporting the intellectual property regimes and standards development participation that makes control of these technologies possible. For example, President Xi of China has pledge government support for technological innovation in key areas and has created incentives for research and development in industries such as artificial intelligence and semiconductors. In 2020, China released a 15-year plan entitled "China Standards 2035," calling for increased participation by its nationals in the development of standards. This push has already led to more Chinese companies participating in SDOs, more Chinese citizens obtaining leadership positions in SDOs, and more technological contributions being submitted to SDOs by Chinese companies.

The best way for the United States to ensure its national security is to continue to be a leader in innovation and to retain control over the direction of innovation through active participation in standards development. America has long been an undisputed leader in innovation, especially in the technology space. Some American companies, such as Qualcomm and Interdigital, have also ensured that the United States is prominent in standards development by contributing technology for incorporation into standards and participating actively in SDOs. To safeguard the United States, it is critical that innovative activities and participation in standards development by American companies be incentivized; unfortunately, the opposite is true.

#### III. FRIENDLY FIRE IN THE FORM OF HARMFUL INNOVATION POLICIES

Because national security depends on innovation generally and standardized technology specifically, it would make sense for the United States to adopt policies that encourage American companies to engage in these activities. Recently, however, the Biden administration has adopted or proposed policies that are likely to drive American companies away from research and development in these areas, as well as away from participating in standards development activities. Friendly fire is defined as weapon fire coming from one's own side, especially that which causes accidental injury or death to one's own forces. Implementing national policies that ultimately hurt your own national security is a perfect example of this. In looking at the types of innovation necessary to support national security, friendly fire is coming from a number of different directions.

<sup>10</sup> See e.g. Arjun Kharpal, *Power is 'up for grabs': Behind China's Plan to shape the future of next-generation tech*, CNBC (Apr. 26, 2020), available at https://www.cnbc.com/2020/04/27/china-standards-2035-explained.html.



<sup>6</sup> See e.g. Secretary of Defense, *Department of Defense (DoD) 5G Strategy (U)*, at pp. 7-8 (May 2, 2020), available at https://www.cto.mil/wp-content/uploads/2020/05/DoD\_5G Strategy\_May\_2020.pdf.

<sup>7</sup> See e.g. Bojan Pancevski, U.S. Officials Say Huawei Can Covertly Access Telecom Networks, Wall St. J. (Feb 12, 2020, 8:41a).

<sup>8</sup> Daniel R. Russel & Blake H. Berger, Stacking the Deck: China's Influence in International Technology Standard Setting, Asia Society Policy Inst. (2019) at 9.

<sup>9</sup> See e.g. Bloomberg, *Xi Jinping Eyes Innovation and Oversight to Grow China's Digital Economy*, TIME (Oct. 19, 2021), available at https://time.com/6108481/china-digital-economy-technology/; Emily Weinstein, *Beijing's re-innovation strategy is key element of U.S.-China competition*, TechStream/Beijings-re-innovation-strategy-is-key-element-of-u-s-china-competition/.

Discussions at the LeadershIP 2022 conference highlighted at least three ways in which the government's position is likely to discourage investment in innovation in the technology fields that are critical to national security. Two of these sources of friendly fire are based largely in patent policy, while the third source of friendly fire is based in both innovation and competition policy.

#### A. Friendly Fire in the Form of Patent Policy

The current administration is supporting patent policy that decreases incentives to invest in innovation, both by making it difficult to obtain patent protection and, then if patents are obtained, unnecessarily threatening to override patent owner's rights for the government's benefit. Specifically, with respect to obtaining patent protection, the technology areas that are the most important to national security are the same technology areas for which patent eligibility and satisfying requirements of patentability are most uncertain. As to issued patents, the current administration has signaled its openness to override patent rights for the government's benefit. In both of these cases, companies may lose incentives to invest in the research and development necessary to innovate and control the direction of new technologies.

#### 1. Uncertain Patent Eligibility & Disclosure Difficulties

The technology areas most important to national security, such as artificial intelligence, quantum computing, agriculture, and personalized medicine, are the same areas where obtaining patent protection is uncertain. These types of invention suffer from confusion surrounding patent eligibility, as well as difficulties related to satisfactorily describing innovative technologies, such as artificial intelligence. While these issues are not directly the fault of the current administration, there has been scant motivation for correcting these problems.

Under the current doctrine of patent eligible subject matter, patents are unavailable for inventions covering abstract ideas, laws of nature, and natural phenomenon. Read broadly, as is currently the case, these exceptions to patent eligibility largely impact software and biotechnology inventions. Following a string of Supreme Court cases from 2010 to 2014, the eligibility of software-related inventions in particular (and biotech to a lesser extent) has been in disarray. This has had a profound effect on the ability of innovative companies to obtain patents in the fields of artificial intelligence, quantum computing, and even telecommunications.<sup>11</sup>

Similarly, the requirement that patent applications include detailed descriptions of how an invention is made and operates is quite difficult to satisfy for inventions such as artificial intelligence, where the program itself learns and alters its behaviors. In efforts to reform concerns about patent eligibility, some parties have suggested that the disclosure requirements for software-related inventions be heightened. The inability to explain in prose what underlies these types of inventions is already raising concerns about the likelihood of obtaining patent protection.

Where research and development costs are high, but patent protection is unlikely to be granted, companies are often hesitant to invest in innovating. After all, one reason patents are granted is to provide companies with the incentives to invest in inventive and innovative activities. Because the very types of technology that are critical to national security are the same ones where obtaining a patent is most uncertain, continuing with the same troublesome patent acquisition policies is likely to be harmful to national security.

#### 2. Government Override of Patent Rights

The current administration has floated the idea of using march-in rights, particularly with respect to the COVID-19 pandemic, or other government overrides as a way to address the perceived high cost of pharmaceuticals. There are two primary legal provisions that have been suggested for overriding existent patent rights — march-in rights under the Bayh-Dole Act and effective "compulsory licensing" under 28 U.S.C. § 1498. While these are legitimate provisions created for the government to use in particular circumstances, their use does not come cost-free. As speakers noted at the LeadershIP 2022 conference, the first time the government uses these rights inappropriately, companies will reconsider whether to invest in costly research and development in these fields.

Under the Bayh-Dole act, the federal government has the right to "march-in" and force patent owners to license inventions to other companies, particularly where an original licensee is not making sufficient efforts to commercialize the invention or where the forced license is necessary to address a health or safety concern. Although these rights have never been exercised, there have been numerous calls over the years

<sup>13</sup> The United States has also signaled its support of the proposed World Trade Organization waiver of intellectual property rights for COVID-19 vaccines; while this action may provide similar disincentives for investing in research and development by innovative companies, this essay is focused primarily on domestic issues and national security.



<sup>11</sup> David J. Kappos, *National Security Consequences of U.S. Patent (In)eligibility*, Morning Consult (Nov. 4, 2019), available at https://morningconsult.com/opinions/national-security-consequences-of-u-s-patent-ineligibility/.

<sup>12</sup> Kristen Osenga, *Saving Functional Claiming: The Mismatch of § 112 Reform in the § 101 Reform Debate*, Hudson Institute (Jan. 10, 2020), available at https://www.hudson.org/research/15618-saving-functional-claiming-the-mismatch-of-112-reform-in-the-101-reform-debate.

for the government to do so, including during the height of the COVID-19 pandemic, when 34 states attorneys general petitioned the government to march-in for the use of remdesivir.<sup>14</sup>

Independent from march-in rights are the provisions of 28 U.S.C. § 1498(a), which states that if a patented invention is infringed by or for the United States without permission of the patent owner, the patent owner's remedy shall be "reasonable and entire compensation" for such infringement. Essentially, infringement of a patent by the United States will result in a compulsory license in favor of the government; no injunctive relief is possible. One recent example of this is the letter submitted by Senator Warren and a number of advocacy groups and law professors to the Department of Health and Human Services, asking the agency to invoke 28 U.S.C. § 1498 to "break" pharmaceutical patents. The idea is that, in order to lower drug costs, the government should intentionally infringe pharmaceutical patents and then pay a royalty rate determined by the Court of Federal Claims that will be significantly lower than the prices being charged by the patent owner for the same medications.

Both of these provisions allow the government to infringe patent rights; however, there are three significant differences. March-in rights apply only where the patented invention was developed using federal, public funds, whereas § 1498 applies to every U.S. patent, regardless of funding source. Private companies can take the initiative to seek march-in rights from the government, whereas § 1498 only applies where the government practices a patented invention on its own behalf or requests a government contractor. March-in rights are awarded licenses on reasonable terms "under the circumstances" and pay royalties to the patent owner, where § 1498 requires the patent owner to file suit and receive damages to compensate.

Just as making patent protection unattainable will disincentivize companies from investing in innovation, so too will taking away or devaluing patent rights once obtained. While the ability of the government to override patent rights exists, it is notable that thus far that ability has been rarely, if ever, used. The current administration, however, has seemed more amenable to the potential exercise of these rights, which again may have significant impact on innovation and, ultimately, national security.

#### B. Friendly Fire in the Form of Competition Policy

The third barrage against innovation is more intimately tied to competition policy. When patented technology is incorporated into a standard, the patents are known as standard-essential patents, or SEPs. Oftentimes, the standards development organizations, or SDOs, have implemented FRAND policies that apply to these SEPs. Specifically, owners of SEPs commit to license these SEPs on fair, reasonable, and non-discriminatory terms. The purpose of FRAND is to provide a balance between companies who develop new technology for incorporation into technology standards and companies who want to manufacture and sell products and services that incorporate standardized technology. FRAND policies allow the SEP owners to license these patents and recoup some of the costs related to research and development, as well as standards development activities, while ensuring that companies wishing to implement the standardized technology have sufficient access to these patents and the underlying technology.

The friendly fire in this case comes in the form of a Draft Policy Statement on Licensing Negotiations and Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments, published in December 2021. <sup>16</sup> The Draft Policy Statement, in addition to setting forth an unrealistic example of a good faith negotiation between patent owner and licensee, effectively prohibits injunctive relief for infringement of standard-essential patents ("SEPs"). Just as with the government override of patent rights described above, the near-prohibition on injunctive relief devalues the SEP owner's patent right and creates a disincentive for companies to engage in both innovative and standards development activities.

The 2021 Draft Policy Statement is a step backwards from the previous leadership of Makan Delrahim at the Department of Justice-Antitrust Division. Mr. Delrahim's New Madison Approach included, among other provisions, the notions that antitrust remedies were inappropriate for disputes between SEP owners and implementing companies and that injunctive relief should be readily available for infringement of SEPs. This New Madison perspective was manifest in the 2019 Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments, issued by the DOJ, the US Patent and Trademark Office, and the National Institute of Standards and Technology ("NIST").<sup>17</sup> The

<sup>17</sup> Department of Justice, *Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments* (Dec. 19, 2019), available at https://www.justice.gov/atr/page/file/1228016/download.



<sup>14</sup> See e.g. Milad Emamian, *Oh, When the Feds Go Marching-In*, The Regulatory Review (Feb. 24, 2021), available at https://www.theregreview.org/2021/02/24/emamian-feds-marching-in/.

<sup>15</sup> See e.g. Adam Lidgett, HHS Urged to Lower Drug Costs By 'Breaking Patent Barriers', Law360 (Apr. 25, 2022, 6:59p), available at https://www.law360.com/articles/1487146.

Department of Justice, *Draft Policy Statement on Licensing Negotiations and Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments* (Dec. 6, 2021), available at https://www.justice.gov/atr/page/file/1453471/download.

2019 Policy Statement stated: "All remedies available under national law, including injunctive relief and adequate damages, should be available for infringement of standards-essential patents subject to a F/RAND commitment." As of June 8, 2022, the 2019 Policy Statement has been withdrawn by all three agencies that issued it. Although the 2021 Draft Policy Statement has not been adopted and the agencies have recently suggested that these issues will be addressed on a case-by-case basis, the future of how and whether the administration will craft innovation policy remains unknown.

In July 2021, President Joseph Biden issued the Executive Order on Promoting Competition in the American Economy, where, among other things, he "encouraged [the Attorney General and the Secretary of Commerce] to consider whether to revise their position on the intersection of intellectual property and antitrust laws, including by considering whether to revise" the 2019 Policy Statement.<sup>20</sup> The 2021 Draft Policy Statement was issued in response. The theory, unsupported by evidence and actually disproven by empirical studies, is that SEP owners can wield their patent rights in anticompetitive ways, seeking to charge unreasonably high royalty rates and engaging in patent holdup through the threat of injunction. Despite a lack of data and analysis, the 2021 Draft Policy Statement seeks to prevent the purported anticompetitive behavior by taking away the threat of injunctive relief.

Although the Draft Policy Statement acknowledges the value of "widespread and efficient licensing of SEPs" and recognizes that "efficient negotiation of F/RAND licenses is likely to improve standardization efforts and support competition and innovation," it then proceeds to eviscerate SEPs by essentially taking away injunctive relief. Where injunctive relief is unavailable, efficient infringement is an attractive option. Efficient infringement is the idea that the infringer chooses not to license a patent, but opts to "infringe now, pay later," usually after a lawsuit and often at a court-ordered royalty rate that is more attractive than one it could have gotten through negotiation.

Because of this, the Biden administration's Draft Policy Statement on SEPs is more likely to discourage American companies from participating in SDOs and ultimately allow our adversaries to control the direction of innovation, as well as the very technology we rely on for our safety. The Draft Policy Statement is essentially setting up a second, inferior class of patents in SEPs. If patents lose value when they become part of a technology standard it would make sense for innovative companies in the United States to stop participating in SDOs or stop investing in the R&D that develops technology underlying these important technology standards. In either case, the United States loses its ability to direct innovation and control the direction of technology, including the technology that supports our national security.

#### IV. CONCLUSION

Policies that decrease incentives to invest in innovation may be an end to innovation of key technologies the United States needs to win wars — either military-based or against global pandemics. Policies that discourage American companies from participating in SDOs may lead to the end of our ability to control the direction of innovation and technology. The relationship between innovation, competition, and national security can hardly be overstated, and yet it seems to be largely ignored by policy makers. Going forward, it is critical for this relationship to be understood. American companies should be incentivized to engage in innovative and standard development activities, particularly in technology areas that support national security.

During the panel on *Innovation, Standards, and National Security* at the LeadershIP 2022 conference, one of the speakers asked the following question: Can America go to war without private industry? A more important and acute question is whether the current administration will stop taking aim at private industry and start supporting the innovative companies whose technology is essential our national security.

<sup>18</sup> Department of Justice, Withdrawal of 2019 Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments (June 8, 2022), available at https://www.uspto.gov/sites/default/files/documents/SEP2019-Withdrawal.pdf.

<sup>19</sup> See e.g. Ryan Davis, *Feds' Patent Injunction Views Murky After Dropped Policies*, Law360 (June 9, 2022 10:00p), available at https://www.law360.com/competition/articles/1501270/feds-patent-injunction-views-murky-after-dropped-policies.

<sup>20</sup> President Joseph Biden, *Executive Order on Promoting Competition in the American Economy* (July 9, 2021), available at https://www.whitehouse.gov/briefing-room/presidential-actions/2021/07/09/executive-order-on-promoting-competition-in-the-american-economy/.



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