

# CSIS Renewing American Innovation Project<sup>1</sup> | Comment on the 2021 Draft Policy Statement concerning SEPs

February 4, 2022

The United States is engaged in a global competition for innovation, with critical implications for the nation's continued technological leadership, competitiveness, and security. To win this competition, the U.S. must leverage its advantages at home, including its robust intellectual property rights system and the innovative zeal of its entrepreneurs. It should also look abroad — by setting the pace for scientific cooperation with our allies and strategic partners, and by developing shared international technical standards established through the contributions of experts from around the globe.

A recent proposal by the Antitrust Division of the U.S. Department of Justice, however, works against this goal by weakening the U.S. innovation system. Launched as a consultation<sup>2</sup> on a *Draft Policy Statement on Licensing Negotiations and Remedies for Standards-Essential Patents Subject to F/RAND Commitments*, the draft is promoted as an effort to encourage good-faith licensing negotiations and to address the scope of remedies available to patent owners that have agreed to license their essential technologies on fair, reasonable, and non-discriminatory (F/RAND) terms.

Upon review, it is apparent that this draft policy will disincentivize innovation in the United States, particularly by small and medium enterprises. By denying standard essential patents (SEPs) critical remedies (such as seeking injunctions) that are available to other types of patents, the draft's proposal reduces the ability of SEP owners to negotiate licenses for their patents on reasonable terms or enforce them against a growing number of implementers who are refusing to negotiate. By weakening the American intellectual property system, the 2021 Draft Policy Statement will harm U.S. national security and competitiveness.

What is more, the largest short-term and long-term beneficiaries of the 2021 Draft Policy Statement are firms based in China. Currently, China is the world's largest consumer of SEP-based technology, so weakening protection of American owned patents directly benefits Chinese manufacturers. The

---

<sup>1</sup> The Center for Strategic and International Studies (CSIS) is a private, tax-exempt institution focusing on international public policy issues. Its research is nonpartisan and nonproprietary. CSIS does not take specific policy positions. Accordingly, all views, positions, and conclusions expressed in this publication should be understood to be solely those of the author(s) named on pages 9-10.

<sup>2</sup> United States Department of Justice, "Public Comments Welcome on Draft Policy Statement on Licensing Negotiations and Remedies for Standards-Essential Patents Subject to F/RAND Commitments." Justice.gov, December 6, 2021. <https://www.justice.gov/opa/pr/public-comments-welcome-draft-policy-statement-licensing-negotiations-and-remedies-standards>

unintended effect of the 2021 Draft Policy Statement will be to support Chinese efforts to dominate critical technology standards and other advanced technologies, such as 5G. Put simply, devaluing U.S. patents is akin to a subsidized tech transfer to China.

### **Innovation and National Security**

The American innovation system—a network of capabilities, rules, and policies supporting research, development, and commercialization of new technologies—is a national strategic asset. Since the founding of the republic, the innovation economy has served as the basis for U.S. competitive and strategic advantage—a finding affirmed in the October 2021 White House National Strategic Overview for Research and Development Infrastructure.<sup>3</sup>

This innovation system is anchored by a robust framework of rules governing standards and intellectual property protection. Standards set the pace for innovation, providing shared platforms for industry participants to work together to bring new technological solutions to the marketplace. Standards also promote interoperability and safety, giving consumers more and better choices. Moreover, secure property rights encourage smaller firms and individual inventors to share their new ideas and collaborate with others without the risk of theft. The community of small inventors, universities, start-ups, and entrepreneurs have repeatedly spoken about the importance of secure property rights in providing them a path to market entry. Importantly, patents are not a “monopoly” in the market sense – they are a temporary period of exclusivity for a particular solution in exchange for disclosing that solution and eventually giving it up as a public good. The patent system for inventions creates, among other things, the rents that spur risk-taking and encourage entrepreneurship. The 2021 Draft Policy Statement would weaken this system, hurting U.S. risk-taking, innovation, and, subsequently, leadership in global technology standards, and is therefore concerning.

The current administration recognizes the importance of U.S. leadership in critical technologies and standards and their role in driving U.S. economic growth, innovation, and national security. The priority of “maintaining U.S. leadership in 5G standards and deployment” is reiterated in the president’s July 2021 “Executive Order on Promoting Competition in the American economy.”<sup>4</sup> The United States is in a close global technological competition, especially with China, and, therefore, needs to protect a rules-based and private sector-led standards ecosystem in partnership with its allies. The U.S.’s allies are closely watching and will likely follow the U.S.’s lead – meaning that the choice here affects not just U.S. competitiveness, but also that of our allies. The United Kingdom and Germany,

---

<sup>3</sup> Subcommittee on Research and Development Infrastructure, “National Strategic Overview for Research and Development Infrastructure,” Committee on Science and Technology Enterprise, National Science and Technology Council, October 2021. [https://www.whitehouse.gov/wp-content/uploads/2021/10/NSTC-NSO-RDI-REV\\_FINAL-10-2021.pdf](https://www.whitehouse.gov/wp-content/uploads/2021/10/NSTC-NSO-RDI-REV_FINAL-10-2021.pdf)

<sup>4</sup> Joseph R. Biden Jr., “Executive Order on Promoting Competition in the American Economy,” WhiteHouse.gov, July 9, 2021. <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/07/09/executive-order-on-promoting-competition-in-the-american-economy/>.

for example, showed strong support for the 2019 policy statement regarding SEP's, but continued international support depends on the U.S. leading by clear example.

The proposed 2021 policy is inconsistent with the administration's goals. It is focused narrowly on an issue of administrative process without recognizing the broader implications the proposed change will create for U.S. competitiveness and international leadership. Indeed, the uncertainty created by the draft policy could potentially harm current efforts to develop a common SEP approach being undertaken in forums such as the U.S.-European Trade and Technology Council (TTC) and the Cooperative Security Dialogue (Quad) to develop a cooperative process for standards development.

### **Standard Essential Patents**

A standard essential patent ("SEP") is a patent that can be properly mapped onto a consensus industry standard, such that a product that conforms to that standard would infringe the patent, unless a license has been granted. SEPs and their licensing are common in the mobile wireless and telecommunications industry, a sector that is highly standardized due mainly to the need for interoperability between mobile devices. SEPs are also increasingly important in other Internet-of-Things (IoT) technologies, as well as connected cars, autonomous vehicles, artificial intelligence, and many other emerging and critical technologies.

Realizing the value of a SEP calls for cooperation between the owner and implementer. However, owners and implementers of SEPs can try to take advantage of each other in some situations. Epstein and Naroozi<sup>5</sup> distinguish between *patent hold-up* and *patent hold-out* in these terms:

“In general, by ‘patent holdup’ we mean the theoretical claim that innovators of standard-essential patents attempt to extract excessively large royalties from implementers after those implementers have committed to a particular technological standard that requires the use of the patent(s) in question—that is, a standard that renders the patent(s) ‘essential.’

By ‘patent holdout’ we mean the converse problem—that an implementer refuses to negotiate in good faith with an innovator for a license to valid patent(s) that the implementer infringes, and instead forces the innovator to either undertake significant litigation costs and time delays to extract a licensing payment through a court order, or else to simply drop the matter because the licensing game is no longer worth the candle.”

To overcome these challenges to collective action, particularly given the complexity of standards and patents that go into advanced devices, owners of SEPs often make a commitment to offer licenses on Fair, Reasonable and Non-Discriminatory (F/RAND) terms. Over the last ten years, there has

---

<sup>5</sup> Richard A. Epstein and Kayvan B. Naroozi, “Why Incentives for ‘Patent Holdout’ Threaten to Dismantle FRAND, and Why It Matters,” *Berkeley Technology Law Journal*, Vol. 32 (2017): 1381.

been mounting evidence of patent hold-out. For example, see the cases of Huawei in the UK,<sup>6</sup> Haier in Germany,<sup>8</sup> Wiko in the Netherlands,<sup>9</sup> LG in the United States,<sup>10</sup> and many more. It is therefore important that the policies determining SEP-F/RAND disputes maintain a balance between the interests and incentives of innovators and implementers. Over the same period, there has been little, if any, evidence of hold-up as a matter of concern.

### Policy Statements Concerning SEPs

With rapid innovation in wireless and other advanced technologies raising the commercial stakes over the past decade, federal agencies made repeated attempts to provide guidance about the use of SEPs.

The 2013 Statement<sup>11</sup> from the Department of Justice (DOJ) and the U.S. Patent and Trademark Office (USPTO) acknowledged the pro-competitive benefits of standard setting but noted also that standard setting created certain anticompetitive risks, and specifically stated that F/RAND commitments help mitigate these risks. It nevertheless expressed a concern about situations where “the owner of that patented technology may gain market power and potentially take advantage of it by engaging in patent hold-up” and called for ways by which opportunistic conduct by patent holders may be mitigated. Indeed, the 2013 Statement also noted that injunctive relief may be an appropriate remedy in certain circumstances, e.g., when a potential licensee constructively refuses to engage in a negotiation to determine F/RAND terms.<sup>12</sup> In subsequent years, however, the 2013 Statement came to be misconstrued to create a *de facto* prohibition against the use of injunctions for SEPs. Accordingly, the USPTO, DOJ, and NIST issued a joint statement in 2019 to clarify that a patent owner’s F/RAND commitment is a relevant factor in determining appropriate remedies but need not act as a bar to any particular remedy.

The clarification sought by the 2019 Statement<sup>13</sup> called for subjecting all patents to the same laws with the same available remedies for infringement, including SEPs subject to F/RAND terms. It explained that “[a]ll 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.” The 2019 Statement also explicitly rejected “a special set of legal rules that limit remedies for infringement of standards-essential patents subject to a F/RAND commitment.”

---

<sup>6</sup> *Unwired Planet International Ltd v. Huawei Technologies Co. Ltd* (UKSC 37, Aug. 26, 2020).

<sup>7</sup> *Tagivan (MPEG-LA) v. Huawei*, 4a O 17/17 (District Court of Düsseldorf, Nov. 9, 2018) (Ger.).

<sup>8</sup> Case No. KZR 36/17, Federal Court of Justice (Bundesgerichtshof, May 5, 2020) (Ger.).

<sup>9</sup> *Philips v. Wiko*, C/09/511922/HA ZA 16-623 (Court of the Hague, July 2, 2019), ¶¶2.2-2.3 (Neth.).

<sup>10</sup> *Core Wireless Licensing S.a.r.l. v. LG Elecs., Inc.*, No. 2:14-CV-912-JRG, 2016 WL 10749825 (E.D. Tex. Nov. 2, 2016).

<sup>11</sup> U.S. Department of Justice and U.S. Patent and Trademark Office, “Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments,” Justice.gov, January 8, 2013.

<sup>12</sup> *Ibid.*

<sup>13</sup> U.S. Department of Justice, et al., “Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments,” Justice.gov, December 19, 2019.

The 2021 Draft Policy Statement<sup>14</sup> makes a sharp departure from the 2013 and 2019 statements under the guise of rebalancing the F/RAND-rate negotiations. It outlines steps that SEP-holders and potential implementers should take in negotiations and calls into question the availability of injunctive relief for SEP-owners under most circumstances.

Meanwhile, courts across the globe have made much progress in clarifying legal rules and creating a stable environment for SEP licensing since 2011. For example, *Huawei v. ZTE* (CJEU, July 2015), *Unwired Planet v. Huawei* (UK Supreme Court, August 2020), *Nokia v. Daimler* (Regional court of Mannheim, Germany, August 2020), and *Sisvel v. Haier* (Federal Court of Justice, Germany, May 2020), have all confirmed that a SEP holder has the right to seek injunctive relief against an infringer of FRAND-committed SEPs. The 2021 Draft Policy Statement is a sharp departure from this rising international consensus.

### **Assessing the 2021 Draft Policy Statement**

The 2021 draft statement justifies itself as an attempt to balance perceived inequities in F/RAND rate negotiations by curtailing ‘hold-up’ and ‘hold-out.’ The policy purports to prevent ‘hold-up,’ in which SEP-holders attempt to exact supra-F/RAND rates via their dominant market position and/or use the threat of litigation, as well as ‘hold-out’ by implementers attempting to delay the process or avoid paying royalties. As written, however, the draft statement is not balanced, resulting in a negative impact on the U.S. innovation system.

Indeed, the 2021 Draft Policy Statement puts a thumb on the scale in favor of implementers and discourages injunctive relief for owners of U.S. patents. For example, the only scenario that the 2021 Draft Policy Statement acknowledges as appropriate for injunctive relief for SEPs is when a potential licensee refuses to pay what has been determined by a court or another neutral decision maker to be a F/RAND royalty. It is not even clear that injunctive relief would be available to SEP owners when a potential licensee directly refuses to engage in a negotiation to determine F/RAND terms, a sharp departure even from the original 2013 statement. Far from being balanced, this is the most radical approach the agencies have adopted so far. In contrast, the 2013 statement expressly states that a potential licensee who “refuses to engage in a negotiation to determine F/RAND terms” could be subject to injunctive relief, and then goes on to provide examples of “constructive refusal to negotiate, such as by insisting on terms clearly outside the bounds of what could reasonably be considered to be F/RAND terms in an attempt to evade the putative licensee’s obligation to fairly compensate the patent holder.”<sup>15</sup> The 2021 draft is entirely silent with respect to constructive refusal to negotiate.

---

<sup>14</sup> United States Department of Justice, “Public Comments Welcome on Draft Policy Statement.”

<sup>15</sup> U.S. Department of Justice and U.S. Patent and Trademark Office, “Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments,” Justice.gov, January 8, 2013.

Curiously, the 2021 draft proffers little or no evidence of patent ‘hold up’ whereas the wireless industry is rife with examples of ‘hold out’ and intentional delays by implementers.<sup>16</sup> The 2021 Draft Policy Statement changes would leave American SEP-owners at a disadvantage while favoring those corporations that seek to avoid or at least delay entering into SEP licenses.

### **The 2021 Draft Policy Statement Advantages China**

Devaluing SEPs would have severe consequences for innovation and for the U.S. and its allies. We are at a time where there is a geopolitical race for global leadership in critical technologies. The Biden administration has recognized the importance of technological leadership.<sup>17</sup> However, this Draft Policy Statement risks undermining the ability of U.S. companies to compete with their global rivals.

The immediate and the largest beneficiaries of the 2021 Draft are firms based in China. This is because the implementers, and thus licensees, of cellular technologies are largely based in China. Devaluing U.S. patents would reduce the price that Chinese implementers pay for American innovation.<sup>18</sup>

The long term and largest beneficiaries are also firms based in China. China has strong ambitions and a growing investment in leading in critical technology standards. Although U.S. companies are currently leading in several key areas, numerous reports have confirmed that China is rapidly closing the gap. This is because China has recognized the strategic importance of standards in key technological sectors. In 2015, President Xi Jinping observed that “standards are the commanding heights, the right to speak, and the right to control. Therefore, the one who obtains the standards gains the world.”<sup>19</sup> China has accordingly embarked on an expansive and well-coordinated strategy to strengthen its role in technology standards. Most recently, in 2020, it announced its “China Standards 2035 Plan” to set global standards for emerging technologies such as 5G, Internet of Things (IoT), Artificial Intelligence (AI), and clean energy.<sup>20</sup>

---

<sup>16</sup> See, *Supra* 3-8. See, also, 4a O 73/14 (Regional Court Düsseldorf, Mar. 31, 2016) (Ger.) [St. Lawrence v. Vodafone, 4a O 73/14]; 4c O 44/18 (LG Dusseldorf, 7 May 2020) [HEVC (Dolby) v MAS Elektronik]; 4a O 17/17 (District Court of Düsseldorf, Nov. 9, 2018) (Ger.) [Tagivan (MPEG-LA) v Huawei]; Koninklijke Philips N.V. v Asustek Computers INC., No. 200.221.250/01 (Court of Appeal of the Hague, May 7, 2019) (Neth.); Philips v Wiko, C/09/511922/HA ZA 16-623 (Court of the Hague, Jul. 2, 2019) (Neth.); Telefonaktiebolaget LM Ericsson v. Intex Techs. (India) Ltd., No. 1045 of 2014, High Ct of Delhi (Mar. 13, 2015); Optis Wireless Tech., LLC v. Apple Inc., No. 2:19-CV-00066, 2020 WL 999463 (E.D. Tex. Mar. 2, 2020); TQ Delta v Zyxel Communications, HP-2017-000045 - [2019] EWHC 745 (UK High Court of Justice, 2019) (Pat).

<sup>17</sup> “The Biden Plan to Ensure the Future Is ‘Made in All of America’ by All of America’s Workers,” *JoeBiden.com*, n.d. <https://joebiden.com/made-in-america/>

<sup>18</sup> By definition, technology standards are global in nature, and as a practical matter, so are the patent portfolios associated with these technologies. Thus, the usual industry-wide practice is to engage in portfolio-wide licenses that are global in scope. Therefore, devaluing US patents reduces the value of global portfolio licenses.

<sup>19</sup> Rush Doshi et al., “China as a ‘Cyber Great Power: Beijing’s Two Voices in Telecommunications,” Brookings Institution, Apr. 2021, 16. [https://www.brookings.edu/wp-content/uploads/2021/04/FP\\_20210405\\_china\\_cyber\\_power.pdf](https://www.brookings.edu/wp-content/uploads/2021/04/FP_20210405_china_cyber_power.pdf).

<sup>20</sup> See forthcoming CSIS submission to December 2021 NIST “Request for Information on People’s Republic of China (PRC) policies and influence in the development of international standards for emerging technologies”

China has rapidly increased its participation, representation, and influence across many well-established Standards Development Organizations (SDOs). For example, in the context of the 3rd Generation Partnership Project (3GPP), which is best known for its work in the development and maintenance of 3G, 4G, and 5G, more and more Chinese companies have joined so that approximately 20% of the 3GPP members are now Chinese companies. Currently, North American companies compose about 25% of the membership, and European companies compose about 30%. There has been also an increase in Chinese representation in leadership positions at 3GPP. Thus, although China and its companies cannot yet claim a leadership position, they are clearly strengthening their position. To at least maintain the status quo and allow the U.S.-supported rules-based system to continue as it has, this contest must come down to more than just which nation has a more efficient government bureaucracy. Success here will be defined by the maintenance of a system that allows for economic stability and an assurance of IP rights being upheld. In the absence of clear enforcement rights and the potential for injunctive relief when their standard essential patents are infringed, and without the ability to bring both licensor and licensee to the negotiating table, American innovators will be hamstrung, unable to gain a return on investment from their research and standards contributions.

Market-driven U.S. firms rely on return-on-investment from their long-term and risky R&D by licensing of their patent portfolio for SEPs to continue the cycle of reinvesting these revenues for future R&D. U.S. companies would be less likely to continue making costly and risky investments in R&D unless they are able to monetize their successful inventions. Strong IPRs, including SEPs, play a fundamental role in ensuring that companies are compensated and incentivized to contribute their inventions to global standards. Absent the ability to effectively enforce SEPs, only the global competitors of U.S. companies that receive significant public funding or state subsidies from their governments will be able to compete at the levels needed to lead in the global technology standards.

### **Need for Reliable Intellectual Property and Standards Systems**

A reliable intellectual property system is essential for allowing U.S. companies to be able to compete on a level playing field and maintain their leadership position. In a market-based economy, the ability to monetize IP rights through licensing them successfully is an important mechanism to enable firms to invest in risky R&D required to lead in global standards. Although the United States does not yet have robust programs nor incentives that would promote the ability of U.S. companies to participate, lead, and compete globally in the standardization of technologies, the U.S. is working (as noted earlier) with its allies through forums like TTC and the Quad to develop multilateral cooperation on these issues. The U.S. and its allies need continued reliance on market tools to provide incentives to innovate, and IPRs are among the most important instruments that market-driven economies have for encouraging firms to invest in risky R&D. By introducing uncertainty regarding the enforceability of SEPs, or even worse, by involuntarily blessing infringers' opportunistic practices, the 2021 Draft Policy Statement would hamper the U.S.'s efforts in these negotiations.

The draft also risks undermining the sustainability of the open standardization system. In the cellular space, innovators have traditionally relied on licensing to get appropriate returns on their

investments in R&D. Without the clear ability to achieve returns on R&D investments, U.S. firms will be less willing to continue contributing their technology to global cooperative standards bodies, where hundreds of companies voluntarily participate to develop common technology solutions. This does not mean standards innovation will not occur, but it will likely mean that it will occur in a very different way, and likely at reduced rates. In a world without cooperative standards, technology standards may be developed by governments, led by state-driven (instead of current market-driven) innovation agendas. The development of China-led and China-only standards in various key technologies corroborate this possibility. Another possibility would be the development of *de facto* standards, that is, proprietary technologies that are developed by a single company and used as a common solution in the market. Several large technology platforms are already examples of such technologies, and in the absence of cooperative standards such large platforms would get even larger. Therefore, a world without the ability to create cooperative technology standards through a market-driven and industry-based consensus will likely be a riskier and less prosperous world.<sup>21</sup>

In contrast to the 2021 Draft Policy Statement, China is in fact moving in the opposite direction, recognizing both the power of bolstering intellectual property rights and standards to encourage domestic innovation and the need to support domestic firms. China has accordingly made participation in standards development a top priority for the country, and numerous statements by Chinese public officials make clear that China is aspiring to become a leading player in global standards development. For example, Foreign Ministry spokesperson Zhao Lijian famously said that China seeks “to provide a blueprint for formulating global standards.”<sup>22</sup> China has also shown a continuing attention to their patent holdings and their patent system, as well as a deep understanding of how important IPRs are for standards and technological leadership.<sup>23</sup> Perversely, the 2021 draft proposal handicaps the ability of U.S.-based firms to compete for leadership in standards-based technologies.

## Summary

The United States has been uniquely innovative through much of its history, fueled by a strong patent system. One reason innovation and competition particularly thrive in SEP-heavy industries is that balanced rules and the adoption of F/RAND commitments incentivize SEP owners to develop new technologies and to set reasonable royalties, while the market is incentivized to adopt broadly the new technologies.

---

<sup>21</sup> For more information on the benefits of open cooperative standardization systems, compared to government driven or *de facto* proprietary standards, see Jorge Padilla, John Davies, and Alexandra Boutin, “Economic Impact of Technology Standards,” Compass Lexicon, September 2017. [https://www.compasslexecon.com/wp-content/uploads/2018/04/CL\\_Economic\\_Impact\\_of\\_Technology\\_Standards\\_Report\\_FINAL.pdf](https://www.compasslexecon.com/wp-content/uploads/2018/04/CL_Economic_Impact_of_Technology_Standards_Report_FINAL.pdf)

<sup>22</sup> Rush Doshi, et. al., “China as a Cyber Great Power,” 17.

<sup>23</sup> See China’s 14<sup>th</sup> Five Year IP Protection and Utilization Plan cited in Toby Mak, “China Releases 14th Five-Year Plan Notice on Intellectual Property - China to More than Double Number of Foreign Patents by 2025,” *The National Law Review*, Natlawreview.com, October 29, 2021. <https://www.natlawreview.com/article/china-releases-14th-five-year-plan-notice-intellectual-property-china-to-more-double>



The 2021 Draft Policy would do harm to this balance. It would weaken the intellectual property of owners, thereby reducing the willingness of firms to invest and create new technologies in the United States. It would discourage entrepreneurship and venture investment in technology firms seeking to bring innovative products to market. In the long run, the 2021 Draft Policy Statement also makes it more likely that the innovative technologies with embedded SEPs are developed and manufactured outside the United States, ceding American leadership in the setting of standards for the technologies of the future. This weakens the American innovation system and compromises the related benefits of economic growth, global competitiveness, and national security.

Strengthening American technology leadership, hence its national security position, should instead be advanced by maintaining a pro-innovation policy on standard essential patents subject to voluntary F/RAND commitments.

## Authors

### **Mark Cohen**

Director, China Team, Office of Policy and International Affairs, U.S. Patent and Trademark Office (USPTO)

### **Walter Copan**

Fmr. Director, National Institute for Standards and Technology (NIST)  
Senior Advisor, Renewing American Innovation Project, Center for Strategic and International Studies (CSIS)

### **Thomas Duesterberg**

Senior Fellow, Hudson Institute

### **Kirti Gupta**

Senior Advisor, Renewing American Innovation Project, CSIS

### **John J. Hamre**

Fmr. Deputy Secretary of Defense  
President and CEO, Langone Chair in American Leadership, CSIS

### **Robert O. Work**

Fmr. Deputy Secretary of Defense  
Fmr. Undersecretary of the Navy  
President & Owner, TeamWork, LLC

### **Andrei Iancu**

Fmr. Under Secretary of Commerce and Director of the USPTO  
Senior Advisor, Renewing American Innovation Project, CSIS

### **Ellen Lord**

Fmr. Undersecretary of Defense for Acquisitions and Sustainment  
Senior Advisor, Chertoff Group

### **Nicholas T. Matich**

Fmr. Acting General Counsel of the USPTO  
Principal, McKool Smith

### **Judge Paul R. Michelle**

Fmr. Chief Judge of the United States Court of Appeals for the Federal Circuit

**Gary Hufbauer**

Non-resident Senior Fellow, Peterson Institute  
for International Economics

**Sujai Shivakumar**

Director and Senior Fellow, Renewing  
American Innovation Project, CSIS

**Alexander Kersten**

Deputy Director and Fellow, Renewing  
American Innovation Project, CSIS

**Nadia Schadlow**

Fmr. U.S. Deputy National Security Advisor for  
Strategy, National Security Council  
Senior Fellow, Hudson Institute

**David Teece**

Chairman and Principal Executive Officer,  
Berkeley Research Group, LLC