



U.S. DEPARTMENT OF JUSTICE

Antitrust Division

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Garrard R. Beeney
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125 Broad Street
New York, NY 1004-2498

Re: *University Technology Licensing Program Business Review Request*

Dear Mr. Beeney:

This letter responds to your request, on behalf of your client, the University Technology Licensing Program (UTLP), for a business review letter from the Department of Justice pursuant to our Business Review Procedure, 28 C.F.R. § 50.6. You have requested a statement of the Department's current antitrust enforcement intentions with regard to UTLP's proposed joint patent-licensing program, which seeks to aggregate certain complementary patents of Member universities and license them in packages exclusively through UTLP. UTLP has the potential to commercialize university inventions that may not otherwise have been licensed or implemented. Taking into account this significant benefit to UTLP's potential licensors, sublicensees, and the public, and considering the technologies at issue, UTLP's current scale and scope, the efficiencies associated with the program, and potential harms, the Department concludes that UTLP is unlikely to harm competition. Therefore, we have no present intention to challenge the program.

I. UTLP's Structure and Licensing Agreements

UTLP is a proposed licensing program through which participating universities (the Members) intend to license complementary patents in the physical science sector.¹ The overarching goal of UTLP is to support the development and commercialization of university research by centralizing the administrative costs associated with commercialization and helping Members overcome the budget, institutional relationship, and other constraints that make

¹ The fifteen Members of UTLP are expected to be Brown University; California Institute of Technology; Columbia University; Cornell University; Harvard University; Northwestern University; Princeton University; State University of New York at Binghamton; University of California, Berkeley; University of California, Los Angeles; University of Illinois; University of Michigan; University of Pennsylvania; University of Southern California; and Yale University. UTLP has stated that other non-profit organizations whose patents may add value to UTLP's portfolios may join UTLP at a later date.

individual patent licensing and enforcement challenging for them. We understand that technology transfer is particularly difficult for universities in the physical science sector because it requires significant marketing and industry outreach, which may not be successful given that any one university may not have enough patents in a particular area to be of interest to potential licensees. UTLP proposes to take on the role of a centralized licensing agent in this area. The proposed scope of the program relates to technology applications for autonomous vehicles (e.g., optical components, sensor hardware and software, cybersecurity), connectivity or “Internet of Things” or “IoT” (e.g., millimeter-wave communication, power management, signal processing, location tracking), and “Big Data” (i.e., technology for large-scale data storage, transmission, and analysis). UTLP has stated that the program may be expanded to other technical areas in the future.²

UTLP’s technical advisors have assembled initial patent portfolios related to each of the categories described above. UTLP intends for each of its portfolios to include complementary patented technologies that may be licensed by a company developing a product or service in the portfolio area. UTLP will also present a “menu” that will allow companies to choose among combinations of individual patents, groups of patents that encompass specific technology areas, or the entire portfolio. For example, a sub-portfolio of patents may have value to an implementer based on their application, such as gathering and interpreting data for a Smart City. UTLP represents that it will pass on to implementers—in the form of a royalty discount for a portfolio or sub-portfolio license—a portion of the cost savings associated with UTLP’s centralized licensing administration.³

UTLP’s licensing activities will be managed by a five-member Board of Managers (the Board), selected collectively by the Members.⁴ The Board will be charged with, among other things, making decisions related to sublicensing UTLP’s patent portfolios and managing the program’s budget. The Board will also pre-approve standard licensing terms to which the program’s representatives can agree without further approval, and is responsible for evaluating any proposed departures from the standard terms.⁵ Once license agreements have been entered into, Members will be entitled to share royalty distributions from the program on a basis set by a formula, with factors including the frequency with which patent families containing Members’ individual patents are licensed.⁶ UTLP has the authority to enforce a contributed patent. If litigation is required, however, Members will make individual—not group—determinations

² Our review, however, is limited to the technical areas covered in the Members’ business review request and UTLP is free to seek an additional review if other technical areas are added to the program.

³ Letter from Garrard R. Beeney, Partner, Sullivan & Cromwell, to Makan Delrahim, Assistant Att’y Gen., Antitrust Div., U.S. Dep’t of Justice, at 2 (July 28, 2020) [hereinafter “UTLP Business Review Request Letter”].

³ *Id.*

⁴ Columbia University is Standing Manager of the Board. See UTLP Business Review Request Letter, Ex. A, Limited Liability Company Agreement § 3.2(a)(1) [hereinafter “LLC Agreement”].

⁵ See LLC Agreement, Ex. A, § 3.1.

⁶ See LLC Agreement, Ex. A, § 8.1(b).

about initiating litigation.⁷ In the event of successful litigation, a Member may be entitled to an increased revenue distribution.⁸

UTLP requires that Members license the patents they choose to contribute to UTLP on an exclusive basis but UTLP can use the contributed patents “solely for the purpose of granting sublicenses of the UTLP License pursuant to the University Technology Licensing Program.”⁹ UTLP will then sublicense the patents to implementers on a non-exclusive basis in UTLP’s licensed fields of use in order to reach “a broad array of implementers.”¹⁰ UTLP intends for each of its portfolios to consist of non-standard essential complementary patents.¹¹ UTLP’s LLC Agreement stipulates, however, that in the event that a UTLP patent is deemed a standards-essential patent (SEP) subject to a standards development organization’s licensing commitment, the Board will approve a sublicense to the SEP on the same terms as required by the licensing commitment (e.g., FRAND or RAND terms).¹² The Agreement also stipulates that the Board cannot approve a sublicense agreement that would discriminate among similarly situated willing sublicensees, or have the effect of putting one willing sublicensee at a competitive disadvantage in the relevant market to any other willing sublicensee.¹³

UTLP also has adopted certain safeguards to prevent substitute patents from entering its portfolios (which otherwise could raise antitrust concerns). First, UTLP’s administrators have committed to screen for potentially substitutable technologies in the process of admitting patents to the program. Second, in the event that a technology included in the program is later deemed to be substitutable for another patented technology in a portfolio, Members retain the right to grant a separate, non-exclusive license for that technology, provided UTLP “does not separately make [the patents] available for sublicensing . . . under terms determined independently by [the Member]” and an independent expert agrees they are substitute patents.¹⁴ This “safety valve” can be triggered by any potential licensee asserting that a patent is a competitive substitute under applicable law for another patent also in the UTLP program.¹⁵ Alternatively, a sublicensee can license both patents through UTLP but only pay for one when the sublicensee provides evidence “which in UTLP’s reasonable discretion establishes a reasonable probability” that the patent is substitutable.¹⁶ Finally, the sublicensee has the flexibility to curate its own subset of patents within a portfolio; thus, it is able to decline to license any patents it deems substitutable in the sublicensee’s specific implementation.¹⁷

⁷ *Id.*, § 3.7(d).

⁸ *See* LLC Agreement, Ex. A, § 8.1(b)(5).

⁹ *See* UTLP Business Review Request Letter, Contribution Agreement, Ex. B, § 2.01 [hereinafter “Contribution Agreement”].

¹⁰ *See* UTLP Business Review Request Letter, Form of Sublicense Agreement, Ex. C, § 2.01 [hereinafter “Sublicense Agreement”]; UTLP Business Review Request Letter at 6.

¹¹ UTLP Business Review Request Letter at 2.

¹² LLC Agreement, Ex. A, § 3.13.

¹³ *See* LLC Agreement, Ex. A, § 3.1.

¹⁴ *See* Contribution Agreement, Ex. B, § 2.02(b).

¹⁵ UTLP Business Review Request Letter at 8.

¹⁶ *See* Sublicense Agreement, Ex. C, § 3.01(a).

¹⁷ *Id.* §§ 1.01, 2.01, 3.01(b).

II. Analysis

Patent pools can create licensing efficiencies by “integrating complementary technologies, reducing transaction costs, clearing blocking positions, and avoiding costly infringement litigation.”¹⁸ The Department has recognized that pooling can benefit industry stakeholders “by aggregating the patent rights necessary to commercialize a product that are held by multiple rights holders.”¹⁹ Indeed, patent pool members can offer “one-stop shopping” to firms seeking to manufacture products using [complementary] patents.²⁰ Pools can also advance innovation. For example, a pool’s “simplified approach to licensing can enable more rapid development and adoption of new technologies than could be achieved with cross licensing alone.”²¹ Accounting for these efficiencies, the Department analyzes most patent pooling arrangements pursuant to the rule of reason, where it will consider whether a pool’s potential efficiencies are likely to outweigh its potential for anticompetitive effects.²²

To be sure, patent pools can have anticompetitive effects.²³ “[T]he joint marketing of pooled intellectual property rights with collective price setting or coordinated output restrictions, may be deemed unlawful if they do not contribute to an efficiency-enhancing integration of economic activity among the participants.”²⁴ For example, the pooling of substitute patents may lead to price fixing of these technologies and “result in higher royalties and higher goods prices than would result if the owners licensed or used their technologies independently.”²⁵

Certain antitrust safeguards can mitigate competitive harm and ensure that a pooling mechanism is an “efficiency-enhancing integration of economic activity.”²⁶ These safeguards include “excluding substitute patents from the pool; permitting independent licensing outside the pool; making the license agreement available to all interested licensees; providing clear notice of the contents of the license; and limiting access to competitively sensitive information, such as pricing, marketing, or R&D information through the pool.”²⁷ Notably, however, while the Antitrust Division has highlighted the importance of these safeguards, it also has made clear that

¹⁸ U.S. Dep’t of Justice & Fed. Trade Comm’n, Antitrust Guidelines for the Licensing of Intellectual Property § 5.5 (Jan. 12, 2017), <https://www.justice.gov/atr/IPguidelines/download> [hereinafter “ANTITRUST-IP GUIDELINES”].

¹⁹ See, e.g., Letter from Makan Delrahim, Assistant Att’y Gen., Antitrust Div., U.S. Dep’t of Justice, to Mark H. Hamer, Esq., Baker & McKenzie, at 8 (July 28, 2020), <https://www.justice.gov/atr/page/file/1298626/download> [hereinafter, “Avanci Business Review Letter”].

²⁰ U.S. Dep’t of Justice & Fed. Trade Comm’n, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition, Ch. 3, § I, at 65 (Apr. 2007), <https://www.justice.gov/sites/default/files/atr/legacy/2007/07/11/222655.pdf> [hereinafter “ANTITRUST-IP REPORT”].

²¹ *Id.*

²² ANTITRUST-IP GUIDELINES § 5.5. Sham pooling arrangements designed to accomplish a naked price fixing or market allocation agreement are subject to the *per se* rule. *Id.*

²³ *Id.*

²⁴ *Id.*

²⁵ *Id.* §5.1, Example 8.

²⁶ See *id.* §§ 3.4., 5.5.

²⁷ Avanci Business Review Letter, *supra* note 19, at 12.

the absence of one or more of these provisions would not automatically render a pool anticompetitive.²⁸

In our current review, we have considered both the similarities and differences between UTLP and the prior patent pools that the Antitrust Division has reviewed, which all involved the aggregation of standards-essential patents.²⁹ UTLP's structure differs from these prior pools in that it is not formed around an industry standard, but is aimed at aggregating technologically important, but non-essential complementary patents.³⁰ Unlike prior pools, UTLP also requires Members to commit to exclusively licensing UTLP the patents they choose to contribute.³¹ To mitigate competitive harm, however, UTLP proposes certain safeguards aimed at alleviating price fixing, tying, and foreclosure. Consequently, much of our prior considerations of potential efficiencies and harms are applicable to our analysis of UTLP.

A. UTLP's Efficiencies

UTLP has the potential to generate numerous licensing efficiencies and expand output. UTLP will add expertise and centralize the licensing of many of its Members' physical science patents that may otherwise go unlicensed due to marketing and enforcement challenges.³² Using technical experts, UTLP has harnessed the value of Members' inventions by combining their complementary patents in three areas: (i) autonomous vehicles, (ii) connectivity or "Internet of Things"; and (iii) "Big Data."³³ As mentioned above, these categories will be further divided into subcategories of technologies that implementers may find useful (such as optical components in autonomous vehicles). Combining complementary factors of production through licensing creates efficiencies and is often procompetitive.³⁴ UTLP also has committed to

²⁸ ANTITRUST-IP REPORT, Ch. 3, § I(C)(1)(d), at 72-73; Avanci Business Review Letter, *supra* note 19, at 12.

²⁹ The Division has a long history of analyzing patent pools, having issued several business review letters involving pools since 1997, as well as conducting investigations, holding workshops, and issuing reports and guidance that analyze the competitive implications that may arise from pooling arrangements. *See generally* ANTITRUST-IP REPORT, Ch. 3; *see also infra* note 30.

³⁰ *Cf.*, Avanci Business Review Letter, *supra* note 19, at 12; *with* Letter from Thomas O. Barnett, Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, to William F. Dolan, Partner, Jones Day (Oct. 21, 2008), <https://www.justice.gov/sites/default/files/atr/legacy/2008/10/21/238429.pdf> [hereinafter "RFID Consortium Letter"]; Letter from Joel I. Klein, Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, to Carey R. Ramos, Partner, Paul, Weiss, Rifkind, Wharton & Garrison (June 10, 1999), <http://www.justice.gov/atr/public/busreview/2485.pdf>; Letter from Joel I. Klein, Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, to Garrard R. Beeney, Partner, Sullivan & Cromwell (Dec. 16, 1998), <https://www.justice.gov/sites/default/files/atr/legacy/2006/04/27/2121.pdf>; Letter from Joel I. Klein, Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, to Garrard R. Beeney, Partner, Sullivan & Cromwell (June 26, 1997), <http://www.justice.gov/atr/public/busreview/215742.pdf> [hereinafter MPEG-2 Business Review Letter]; *see also* Letter from Charles A. James, Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, to Ky P. Ewing, Partner, Vinson & Elkins L.L.P. (Nov. 12, 2002), <https://www.justice.gov/sites/default/files/atr/legacy/2006/04/27/200455.pdf>.

³¹ Contribution Agreement, Ex. B, § 2.01.

³² *See generally* UTLP Business Review Request Letter.

³² UTLP Business Review Request Letter at 2.

³³ *Id.*

³⁴ ANTITRUST-IP GUIDELINES § 2.0.

licensing on standard terms that “do not discriminate among similarly situated implementers.”³⁵ At the same time, potential sublicensees may pick which patents within a bundle they actually need and want to license, which permits flexibility. A centralized platform and standard terms for licensing these customized “buckets” of complementary patents is likely to reduce transaction costs for both Members and the companies wishing to incorporate these technologies into their products.

Moreover, UTLP is likely to encourage licensing and increase output. UTLP has invested in technical licensing experts that have identified “complementary, and often disparate” patents that industry might not otherwise be aware of and its packages or buckets of complementary patents are aimed at providing value by identifying and combining these patents.³⁶ UTLP also represents that it will “maintain a website providing information about, among other things, its structure, process, license terms and the contents of the licensed portfolio.”³⁷ Thus, UTLP could facilitate licensing that may not have occurred. In addition, UTLP may expand to include other non-profit entities if Members agree they hold patents that will add value to the existing portfolios³⁸; therefore, UTLP will not seek to exclude other rival universities from the opportunity to license through UTLP.

We understand that UTLP’s Members routinely innovate in the physical science area; however, technology transfer has its challenges. Based on the Request Letter and our review, there are hurdles to marketing efficiently these university inventions. Finding industry partners in the life science area is much more common, in large part because a single patent by itself can be very valuable. In contrast, it may take hundreds of patents in the physical sciences to create a useful application. While universities invest in the marketing of their physical science patents, including through searchable databases, and cultivating relationships with potential licensees, these efforts are resource intensive and not always successful. Indeed, a single university may not have enough patents to move a company to agree to a license. UTLP represents that some potential licensees are “unwilling to pay for university-patented technology even if they are using it.”³⁹ We also understand from Members that potential licensees might forego paying for university technology and use their own alternatives, even if a university’s technology is better. Furthermore, Members may not market or enforce their individual patents due to resource constraints or other institutional reasons.⁴⁰ By pooling resources through UTLP, with expertise in the portfolios, the marketing cost per patent will decrease and the licensing and enforcement of contributed patents will become more efficient. Consequently, UTLP’s licensing program, which offers potentially valuable complementary portfolios, may incentivize potential licensees

³⁵ UTLP Business Review Request Letter at 3, 6,7.

³⁶ *See id.* at 2.

³⁷ UTLP Business Review Request Letter at 7, n.7.

³⁸ LLC Agreement, Ex. A, §§ 1.1., 3.7(b)(1).

³⁹ UTLP Business Review Request Letter at 2.

⁴⁰ UTLP Business Review Request Letter at 12 (indicating that by using UTLP as an exclusive licensing agent “implementers of the technology will be unable to rely on influential contacts, relationships and the like, or otherwise ‘hold out’ by taking advantage of an individual university as a licensor, which has happened from time to time historically”) (footnote omitted).

and create a more efficient mechanism for universities to realize a return on their innovation in physical sciences.

UTLP also is likely to be welfare enhancing because it may increase access to university inventions, including inventions funded in part by the U.S. Government, and spur further research and innovation. We understand from our review that some of the patents to be included in UTLP are a result of government-sponsored research. UTLP may help universities to commercialize and promote access to government-funded inventions, consistent with the Bayh-Dole Act, which encourages “the utilization of inventions arising from federally supported research or development.”⁴¹ In addition, to the extent that Members increase the number of patents licensed, this income could fuel further research and development.⁴² Thus, UTLP is likely to increase output with respect to licensing and innovation and improve consumer welfare.

Finally, because patents will be more widely known and accessible, Universities will be better able to monetize their research, providing more funds for future research.⁴³ As explained above, UTLP also may enforce Members’ contributed patents if necessary.⁴⁴

B. Potential Harms

1. Exclusive licensing

Members license the patents they choose to contribute to UTLP exclusively, and therefore, they are unable to license these patents independently outside the program, except in certain circumstances, i.e., for non-commercial research purposes or to license patents deemed substitutable for other patents in a portfolio.⁴⁵ Importantly, Members retain the right to conduct academic research using the contributed patents and to grant licenses to other research institutions to do the same.⁴⁶ In contrast, in other pools the Department has reviewed, the licensors committed to license the pools non-exclusively. The Department has viewed non-exclusive licensing that allows licensors to offer a bilateral license outside the pool as procompetitive because it allows licensors to compete with the pool license.⁴⁷ For example, in a recent review of a large pool containing only standards-essential patents, we found that independent licensing would be beneficial because the pool had a limited field of use and non-exclusive licensing preserved the licensors’ ability to offer bilateral licenses in other fields of use.⁴⁸

⁴¹ 35 U.S.C. §§ 200-212 (2006). The Bayh-Dole Act permits universities to own and exclusively license their government-funded inventions. *Id.*

⁴² UTLP Business Review Request Letter at 3.

⁴³ *See* UTLP Business Review Request Letter at 3.

⁴⁴ *Id.* at 7; Contribution Agreement, Ex. B, § 3.02.

⁴⁵ Contribution Agreement, Ex. B, §§ 2.01, 2.02(a)&(b).

⁴⁶ *Id.* § 2.02(a).

⁴⁷ ANTITRUST-IP REPORT, Ch. 3, at 79-80.

⁴⁸ Avanci Business Review Letter, *supra* note 19, at 16.

At the same time, however, we have recognized that exclusively licensing a pool can be procompetitive when the arrangement is necessary to prevent free riding on innovation.⁴⁹ “Exclusive licenses may be desirable . . . if they are necessary to provide a significant incentive for the licensees to invest in complementary assets (e.g., when complementary assets would be subject to free-riding absent the exclusive license).”⁵⁰ A free-riding concern is relevant here. Unlike other patent pools the Department has reviewed involving standards-essential patents, UTLP, as an exclusive licensor, has invested substantially in curating the portfolios it proposes to sublicense. Among other efforts, UTLP employed technical experts to identify the portfolio areas and Members’ unencumbered physical science patents that might work together and be valuable collectively to industry participants. UTLP’s endeavor involved analyzing the relevant research of proposed Members, vetting the patents, and creating the buckets of complementary patents that UTLP proposes to offer.⁵¹ As explained, these patents are not standards essential and might not otherwise have been known or combined.⁵² UTLP also will provide centralized administration and expertise about the technologies available through the program.⁵³ The Department has acknowledged “the fact that intellectual property may in some cases be misappropriated more easily than other forms of property may justify the use of some restrictions that might be anticompetitive in other contexts.”⁵⁴ Here exclusive licensing may address free riding and allow UTLP to more fully capture the demand it generates for its curated portfolios and the large number of complementary patents they contain, thus encouraging UTLP to make the continued investment necessary to maintain the portfolios and administer and market them successfully, as well as potentially expand to additional technical areas.⁵⁵

Exclusive licensing addresses free-riding concerns that arise specifically in the context of licensing universities’ patents in the physical sciences. UTLP and its Members repeatedly have represented that institutional relationships and other factors historically have made licensing in the physical science area difficult.⁵⁶ UTLP represents that exclusively licensing UTLP may help to overcome these obstacles, by directing licensing through a centralized agent that has invested in combining selected unencumbered university patents into curated portfolios, making them potentially more valuable to industry. UTLP has the expertise and the resources to negotiate licenses in UTLP’s technical areas and enforce UTLP’s patents when necessary. The exclusive license can incentivize UTLP to undertake these efforts, as it alleviates possible free riding by licensees who might wish to use or license the curated bundles without UTLP’s involvement.⁵⁷

⁴⁹ ANTITRUST-IP REPORT, Ch. 3, at 79-80. *See generally* Howard P. Marvel, Exclusive Dealing, 25 J.L. & ECON. 1, 10 (1982); Ilya R. Segal & Michael D. Whinston, Exclusive Contracts and Protection of Investments, 31 RAND J. ECON. 603 (2000).

⁵⁰ ANTITRUST-IP REPORT, Ch. 3, at 79-80.

⁵¹ UTLP Business Review Request Letter at 3-4.

⁵² UTLP Business Review Request Letter at 4. Moreover, UTLP’s technical experts also sought to exclude technologies that might be considered competitive substitutes. *Id.* *See also infra* Part II.B.2. If a standards-essential patent is included in a UTLP portfolio, however, the Board will approve a sublicense on the same terms as the Members’ pre-existing licensing commitment (e.g., on FRAND or RAND terms). LLC Agreement, Ex. A, § 3.13.

⁵³ *See* UTLP Business Review Request Letter at 12.

⁵⁴ ANTITRUST-IP GUIDELINES § 4.1.2.

⁵⁵ *See* UTLP Business Review Request Letter at 3, 10, 12.

⁵⁶ UTLP Business Review Request Letter at 2, 12.

⁵⁷ *Id.* at 12-13. An exclusive license may enable UTLP to enforce the sublicensed patents in accord with the Contribution Agreement. *Cf.* Lone Star Silicon Innovations LLC v. Nanya Tech. Corp., 925 F.3d 1225, 1229-30

The likely absence of licensing activity for Members' individual patents without UTLP's administration also mitigates competition concerns about exclusive licensing and the foreclosure of licensing outside of the program.

We note that the exclusive license to UTLP is not limited to the fields of use currently offered by the program, and therefore, Members cannot use or license these patents to others (in other fields) except for non-commercial research purposes.⁵⁸ Although the efficiencies associated with the scope of the exclusivity are less straightforward, again, we understand from our review, that the scope of exclusivity has the potential to generate additional licensing revenue for Members if UTLP expands and Members' patents add value to the new portfolios. UTLP represents that its marketing of the curated bundles will be the primary driver of demand for these patents for any use and so the scope of the exclusive license to UTLP will allow it to address free riding on UTLP's efforts and provide the flexibility to negotiate with licensees for more technology fields or offer unrestricted non-exclusive sublicenses, subject to UTLP's agreements, to licensees that desire one. Again, UTLP has the resources and expertise to negotiate such licenses in consultation with Members and enforce the patents as necessary.

Another factor mitigating antitrust concerns is that the sublicense to implementers of these patents is non-exclusive and available to all willing licensees, none of which are expected to compete with Members in any downstream markets. An exclusive license is more likely to raise antitrust concerns "if there is a horizontal relationship among licensors, or among licensees, or between the licensor and its licensee(s)," for example, where there is "[exclusive] cross-licensing by competitors that collectively possess market power."⁵⁹ Here, where Members do not appear to compete in downstream markets, the scope of the exclusive license is more likely to increase licensing and expand utilization of these patents rather than limit output or foreclose competition downstream.

Finally, we address UTLP's argument that a non-exclusive license to a pool of complementary patents is not necessary when sublicensees can choose which patents to license within a UTLP portfolio. Unlike standards-essential patent pools, where the license offer is only for the entire portfolio, the curated patents are not all necessary for an implementer to make its product, and thus it can pick its patents.⁶⁰ Although there are other benefits to non-exclusive licensing,⁶¹ we agree that the ability to license independently outside the pool is less critical when sublicensees have such flexibility.⁶²

Thus, in light of the investments UTLP has made in the pool, the efficiencies it creates for Members as well as industry participants, the potential for free riding or compromised efficiency absent the arrangement, and the likely absence of licensing without UTLP, we find

(Fed. Cir. 2019) (stating a licensee cannot bring a patent infringement suit without joining the licensor unless it possesses all substantial rights in a patent).

⁵⁸ Contribution Agreement, Ex. B, § 2.01.

⁵⁹ ANTITRUST-IP GUIDELINES § 4.1.2.

⁶⁰ UTLP Business Review Request Letter at 11 ("UTLP will not and cannot force licensees to accept a portfolio-wide license on 'take-or-leave' terms in the way that many SEP pools conduct business.").

⁶¹ See ANTITRUST-IP REPORT, Ch. 3, at 78-80.

⁶² See *infra* Part II.B.3.

that requiring Members to exclusively license UTLP the patents that they choose to contribute is unlikely to harm competition on net.

2. *Substitute Patents*

UTLP represents that it seeks to avoid including substitute patents in UTLP's patent packages or portfolio buckets.⁶³ This goal is for good reason. Combining only complementary patents within UTLP's portfolios has the potential to provide value and lower licensing costs for implementers, while the inclusion of substitutes may increase the potential for competitive harms, such as price fixing.⁶⁴ Indeed, "a pool that includes patents for substitute technologies could lead to increased prices in the final goods market due to the absence of competition among those substitute technologies."⁶⁵ UTLP's agreements appear to include adequate safeguards designed to prevent substitutes from entering the portfolios and to eliminate them if later discovered.

UTLP's LLC Agreement expressly excludes substitute patents.⁶⁶ The identification of patents and review by UTLP's technical experts helps to exclude substitute patents from the program.⁶⁷ The LLC Agreement provides that UTLP, through its counsel and technical experts, will use "commercially reasonable efforts" to select patents for contribution that are not "Substitute Patents."⁶⁸ Substitute Patents are defined as "any Patent that under applicable Law provides a different technical way of a licensee accomplishing the same task as another Patent contributed to the Company by any Member pursuant to such Member's Contribution Agreement."⁶⁹ This definition is consistent with how the Department has defined substitute patents related to cellular technologies, which similarly are combined to produce an end product or perform a commercial function.⁷⁰ We believe UTLP's narrow "task" definition is appropriate here as well under the circumstances for several reasons.

⁶³ Substitute patents are "patents covering technologies that compete with each other and that licensees can choose among." Complementary patents are "patents covering separate aspects of a given technology that do not compete with each other." See ANTITRUST-IP REPORT, Ch. 3, III(D)(1)(b)(i), at 77.

⁶⁴ For example, beginning with one of its earliest pooling reviews, MPEG-2, the Department noted that limiting the pool to only complementary patents helped to ensure that patents in the pool are not competing with one another, and thus, bundling them into a single package could not foreclose competition outside the pool. MPEG-2 Business Review Letter, *supra* note 30, at 11.

⁶⁵ ANTITRUST-IP REPORT, Ch. 3, at 67; Complaint, In the Matter of Summit Tech., Inc. and VISX, Inc., No. 9286, 1998 WL 129323 (F.T.C. Mar. 24, 1998) (challenging a combining only competing patents for laser eye surgery); see also Summit Tech., Inc., No. 9286, 1999 WL 33912985 (1999) (consent agreement dissolved the pool).

⁶⁶ See LLC Agreement, Ex. A, § 3.14.

⁶⁷ See *id.* (indicating that UTLP's technical advisors will select for contribution patents that "will likely be useful to prospective sublicensees in carrying out anticipated activities . . . and . . . are not Substitute Patents."). We acknowledge that UTLP's technical advisors are not "independent" experts because they will be employed by the program or UTLP's counsel. The Department has found the use of independent experts in a SEP licensing pool to be procompetitive because the expert can objectively identify essential patents that comply with a standard and keep substitutes out of the pool. We do not find this distinction as important here because UTLP is not licensing standards-essential patents and UTLP's experts are tasked with selecting complementary patents for its curated bundles of non-essential patents that will add value to the packages and make them attractive to implementers.

⁶⁸ LLC Agreement, Ex. A, § 3.14.

⁶⁹ *Id.* at § 1.1.

⁷⁰ See *supra* note 63. See also ANTITRUST-IP REPORT, Ch. 3 III(B), at 66; see also Avanci Business Review Letter, *supra* note 19, at 13, n.88; and RFID Consortium Letter, *supra* note 30, at 9, n.38.

As explained, the LLC Agreement defines “Substitute Patents” as substitutes for a *task*, rather than defining patents as substitutes that can be used for the same *commercial purpose* (patents on two different types of sensors when either or both of which can be used on a vehicle). Although UTLP’s technology fields typically require a large number of complementary patents to implement an identified commercial function,⁷¹ UTLP is likely to license only a small fraction of patents available in these areas. Thus, there are likely to be a number of other competing commercial substitutes available outside the program even if patents within the program are deemed commercial but not “task” substitutes. Second, since potential licensees are likely to have different uses for the patents, it would be difficult to conduct an *ex-ante* analysis of whether two patents will be commercial substitutes. Finally, to the extent that UTLP’s work identifies multiple new potential combinations of patents for commercial purposes which would not have otherwise been identified, no competition can be lost; UTLP may be creating the opportunity for competition in new technology markets. We make no assessment, however, of whether UTLP’s definition would be adequate if UTLP licensed patents outside of Members’ physical science portfolios or UTLP’s specific technology areas.

In addition, as noted above, UTLP incorporates a “safety valve” if “Substitute Patents” are inadvertently included in UTLP’s portfolios. If a technology is later deemed to be substitutable for another patented technology in a bucket (e.g., if the technologies become substitutable for an “unforeseen purpose”), the sublicensee may license both patents but it will only pay for one at a price determined by UTLP’s royalty formula, which is meant to address the unintentional inclusion of competitive substitutes.⁷² We note that in order to employ this safeguard a sublicensee must provide to UTLP “evidence which in UTLP’s reasonable discretion establishes a reasonable probability that such Sublicensed Patents may be deemed substitutes.”⁷³ Thus, the benefit of this safeguard depends on UTLP’s good faith assessment of the sublicensees’ claims. The Department would be concerned if such claims were not evaluated in a fair, objective manner.

Alternatively, to remedy the inadvertent inclusion of substitutes, UTLP may negotiate a license for one of the substitutes pursuant to “terms determined independently by [the] University.”⁷⁴ Members also retain the right to negotiate and grant a separate, non-exclusive license for a substitute technology if UTLP does not negotiate the terms.⁷⁵

Other aspects of UTLP’s structure also disincentivize the inclusion of substitutes. Because UTLP represents that it will price according to a set formula that does not allow for independent price negotiation of single patents, this structure lessens the chance of fixing the price of competing technologies. For example, UTLP will not be able to charge a high rate for substitute patents individually while charging a rate for the pair that is higher by only a

⁷¹ See UTLP Business Review Request Letter, at 5 (discussing an example of two different patents that if combined could reduce the size, cost and efficiency of phased array devices that may be incorporated into an automotive collision avoidance radar system).

⁷² See UTLP Business Review Request at 10-11; Sublicense Agreement, Ex. C, § 3.01(a) & (b).

⁷³ Sublicense Agreement, Ex. C, § 3.01(a).

⁷⁴ Contribution Agreement, Ex. B, § 2.02(b).

⁷⁵ Contribution Agreement, Ex. B, § 2.02(b). An independent expert must agree that the patents are substitutable in order for the Member to license independently outside the program. *Id.*

negligible amount.⁷⁶ Moreover, a sublicensee is not required to license an entire portfolio and may decline up front to license patents that it deems substitutable for a particular implementation.⁷⁷

In sum, we find that the safeguards that UTLP has created to keep substitute patents out of the portfolios, in light of the other features and benefits of the program, the specific technical areas in which UTLP proposes to operate, and that Members do not appear to compete downstream and therefore do not have the incentive to use UTLP to raise input prices to rivals, are sufficient. For these reasons, UTLP is also unlikely to harm competition because the program includes substitutable technologies that foreclose competition outside the pool.

3. *Bundled Patent Packages and Royalty Discounts*

As explained, UTLP allows a potential sublicensee to choose from a “menu” of patents within a curated technology bucket that it would like to license, a group of patents, or UTLP’s entire portfolio.⁷⁸ Permitting this choice mitigates the tying concerns that can arise from package licensing⁷⁹ because a potential sublicensee does not have to commit to licensing “more technology than they need.”⁸⁰ UTLP also provides a royalty discount based on the number of patents a licensee commits to license according to a set formula.⁸¹ Such bundled discounts can be procompetitive, or at least competitively neutral.⁸² Significantly, the discounts allow UTLP to price flexibly in a way that considers sublicensees’ needs, which may be very different depending on the implementer.⁸³ Pricing flexibility is important because not all implementers will require access to every patent as they would in a pool comprised of standards-essential patents. In addition, as UTLP points out, the royalty discount is consistent with the notion that “the combined price of [] individual licenses may be more than the price of the pooled patents which benefits from lower transaction costs.”⁸⁴ Thus, the discount is intended to reflect the transaction cost savings that Members enjoy from pooling that are passed on to sublicensees.⁸⁵ In addition, the discount may result in more Members’ patents being licensed, increasing the value of the pool to Members.

⁷⁶ See Sublicense Agreement, Ex. C, § 3.02.

⁷⁷ See Sublicense Agreement, Ex. C, §§ 1.01, 2.01.

⁷⁸ See UTLP Business Review Request at 2. See also UTLP Business Review Request Letter at 5 (providing an example that the autonomous vehicle bucket can be subdivided into “five complementary categories: (i) optical components; (ii) security and communication; (iii) control and navigation; (iv) ‘vision’ (*i.e.*, giving the system the ability to interpret what it ‘sees’); and (v) millimeter-wave communication hardware.”).

⁷⁹ See ANTITRUST-IP GUIDELINES § 5.3.

⁸⁰ ANTITRUST-IP REPORT, Ch. 3, at 84.

⁸¹ See Sublicense Agreement, Ex. C, § 3.01(b).

⁸² See Hovenkamp, Janis, Lemley, Leslie & Carrier, *IP and Antitrust: An Analysis of Antitrust Principles Applied to Intellectual Property Law* § 22.06 (3d ed., 2020 Supp.) [hereinafter, *See Hovenkamp et. al., IP and Antitrust*].

⁸³ See Hovenkamp et. al., *IP and Antitrust* § 22.06.

⁸⁴ Antitrust-IP Report, Ch. 3, III(D)(6)(b), at 84; UTLP Business Review Request Letter at 13. See also Carl Shapiro, *Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard Setting*, in *Innovation Policy and the Economy* 119 (2000).

⁸⁵ UTLP Business Review Request Letter at 8.

There is a potential that discounting could foreclose the use of competing technologies outside the pool. UTLP represents, however, that it has priced its portfolio so a sublicensee's decision to license individual patents outside the program will remain economically viable, as reflected in the formula it uses to calculate a potential sublicensee's royalties.⁸⁶ Moreover, and even more compelling, we understand from our review that Members do not ordinarily compete with industry, universities, or other entities in licensing their physical science patents, making foreclosure even less likely.⁸⁷ Tailoring licenses and pricing to the demands of sublicensees enables flexibility, preserves choice, and allows UTLP to pass cost savings on to sublicensees that license UTLP's entire portfolio. In light of these efficiencies, we conclude UTLP's royalty discounts are on balance unlikely to harm competition.

4. Royalty Distribution

The LLC Agreement sets forth UTLP's royalty distribution method to Members.⁸⁸ UTLP's distribution method provides 15 percent of UTLP's "Available Cash" will be "allocated and distributed evenly among the Members"; twenty percent of UTLP's Available Cash will be allocated evenly among each Patent Family licensed by the Members and will be distributed to Members based on the number of patent families contributed.⁸⁹ Other amounts will be distributed based on the patent families actually sublicensed and patents enforced, and some income will be reserved.⁹⁰ The Department considered whether this royalty sharing method could harm incentives for innovation because all Members will share in the distribution even if only some of the Members' patents generate income in a particular case. This issue was not present in other pools the Department has reviewed because implementers licensed the whole portfolio and had no option to take a partial pool license.

We find that UTLP's royalty distribution method is unlikely to harm competition or innovation. UTLP represents that the royalty distribution will compensate Members for their significant investment in UTLP. Moreover, UTLP has the potential to increase licensing activity and overall royalty income for *all* contributors, thus encouraging even small universities with complementary and valuable patents to participate. While Members' innovation may not be driven by the potential for royalties, Members may have more income than they otherwise would

⁸⁶ See UTLP Business Review Request at 9; *Cf.* Second Amended Final Judgment at 11, *United States v. Am. Soc'y of Composers, Authors & Publishers*, 323 F.Supp.2d 588 (June 11, 2001), <https://www.justice.gov/atr/case-document/file/485966/download> ("ASCAP shall use its best efforts to avoid any discrimination among the various types of licenses offered to any group of similarly situated music users that would deprive those music users of a genuine choice among the various types of licenses offered, or of the benefits of any of those types of licenses."); *Broadcast Music, Inc. v. Columbia Broadcasting System, Inc.*, 441 U.S. 1, 11 (1979) (noting that under the terms of consent decree ASCAP must offer the applicant a "genuine economic choice between the per-program license and the more common blanket license").

⁸⁷ UTLP Business Review Request at 8. See also Hovenkamp et. al., *IP and Antitrust* § 22.06 ("Packaging in order to take advantage of differential demand does not require or even suggest foreclosure, although foreclosure might incidentally occur.").

⁸⁸ LLC Agreement, Ex. A, § 8.1.

⁸⁹ *Id.* at § 8.1(b).

⁹⁰ *Id.*

to invest in additional research and development in the physical sciences. These efficiencies outweigh any potential for harm.

5. *Litigation/Enforcement*

UTLP has the sole right to enforce Members' contributed patents.⁹¹ Although enforcement of Members' patents may increase as a result of this arrangement, such enforcement alone is not anticompetitive⁹² and it is unlikely to harm competition. We understand that due to resource constraints universities may forego enforcing their patents or negotiating licenses. Therefore, UTLP may allow Members to be appropriately compensated for their innovation if implementers infringe a patent. Moreover, UTLP represents that litigation will be resorted to only when necessary and will be brought in good faith.⁹³ Members also choose whether to designate a patent as a "Litigation Patent" and commence proceedings.⁹⁴ Such decisions are made individually and not collectively by UTLP.⁹⁵ We therefore conclude that the litigation provisions are likely to assist Members' good faith patent enforcement and are unlikely to harm competition.

III. Conclusion

For these reasons, the Department finds that UTLP is likely to create licensing efficiencies and increase output by expanding access to university inventions that may be unlicensed and under-utilized. It also may be a source of funding for additional university research and development. In addition, the potential for competitive harm is low. Therefore, we are not presently inclined to initiate an antitrust enforcement action against UTLP. We note, however, that UTLP is a mechanism that addresses licensing inefficiencies and institutional challenges unique to its Members in the physical science context. This review makes no assessment about whether this mechanism if set up in another context, or if in practice it diverges from UTLP's stated intentions, would have similar procompetitive benefits or low potential for harm.

This letter expresses the Department's current enforcement intention. In accordance with our normal practices, the Department reserves the right to bring an enforcement action in the future if the actual operation of the proposed conduct proves to be anticompetitive in purpose or effect.

This statement is made in accordance with the Department's Business Review Procedure, 28 C.F.R. §50.6. Pursuant to its terms, your business review request and this letter will be made public immediately, and any supporting data will be made publicly available within 30 days of

⁹¹ Contribution Agreement, Ex. B, § 3.02(a).

⁹² *Cf.* ANTITRUST-IP GUIDELINES § 6 (discussing sham enforcement).

⁹³ UTLP Business Review Request Letter at 7.

⁹⁴ Contribution Agreement, Ex. B, § 3.02(b); LLC Agreement, Ex. A, § 8.1(b)(4).

⁹⁵ Contribution Agreement, Ex. B, § 3.02(b).

the date of this letter, unless you request that part of the material be withheld in accordance with Paragraph 10(c) of the Business Review Procedure.

Sincerely,

s/Michael F. Murray