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Avanci response to CMA Consultation on draft guidance on the application of the Chapter I prohibition (CA98) to technology transfer agreements

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Avanci welcomes the opportunity to provide feedback to the Competition and Markets Authority on its draft guidance on the application of the Chapter I prohibition in the Competition Act 1998 (CA98) to technology transfer agreements (Guidance). Avanci is an independent, joint patent licensing provider for the Internet of Things (IoT) and beyond. Founded in 2016, Avanci successfully works at the intersection of different industries to bring efficiency, convenience, and predictability to the licensing process.

Avanci's efficient, market-driven licensing solutions provide a straightforward and fair option for licensing the standardized technologies essential for the products and services that are transforming our world, such as connected vehicles, streaming companies and next-generation broadcasting.

Avanci's different licensing programs offer one-stop shop solutions on licensing terms that can be widely accepted by licensees and licensors. Avanci programs such as Avanci 4G Vehicle, Avanci 5G Vehicle, and Avanci Broadcast enjoy wide participation by almost all relevant licensees and licensors, demonstrating that its market-driven approach is capable of balancing the interests of different companies with different business models, globally.[1]

In the ten years of its existence, Avanci has earned the trust of major licensors and licensees worldwide, ensuring that technology creators are rewarded while technology users benefit from clear, predictable licensing terms.

Crucial for this market-driven approach to be successful are Avanci's independence (it is not owned or controlled by licensors or licensees and does not own patents) and its deep and broad expertise in standard essential patent (SEP) licensing, as well as its firm commitment to providing solutions that enable those using a standard in their products to obtain licences on transparent and uniform terms that create a level playing field, and those creating the technologies to receive a fair return on their investment.

Avanci welcomes the draft Guidance. In particular it commends the CMA for its sober and principled approach in deciding not to include a chapter on "licensing negotiation groups"

[1] For example, automotive suppliers, network operators, manufacturers of consumer electronics, research and technology organizations, chipset and module manufacturers, telecommunication network equipment manufacturers, non-practicing entities, etc., have decided to join Avanci as licensors. Passenger car, truck, bus, agriculture and construction vehicle manufacturers have decided to take an Avanci Vehicle license. Avanci 4G and 5G Vehicle, as well as Avanci Broadcast, also enjoy participation from companies that have decided to join as a licensor and a licensee at the same time. Toyota recently decided to join Avanci 4G and 5G Vehicle as a licensor in addition to already being a licensee in both programs. In Avanci Broadcast, LG Electronics, Samsung and Sharp each participate as a licensor and a licensee.

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(LNGs). As the CMA acknowledges, it would be premature to provide guidance as so-called LNGs have not been sufficiently tested - or indeed at all. Neither the market nor authorities themselves have actual experience with them to provide a basis for informed inclusion in the Guidance. Rather, government agencies such as the U.S. Department of Justice (DOJ)[2] and the Office of the U.S. Trade Representative[3] have voiced concerns and indicated likely antitrust violations based on information currently available. More than that, the DOJ treats them as outright cartels, a view which Avanci and other companies also share, in addition to viewing LNGs as wholly unnecessary based on market conditions. The decision not to provide guidance on the basis of pure speculation demonstrates a sound and measured approach to competition enforcement.

In its further review of the draft Guidance, Avanci calls upon the CMA to take into account real-world joint SEP licensing that has been supported by the EU's 2014 Technology Transfer Guidelines; and to follow an evidence-based approach that takes the specific market dynamics of joint SEP licensing into account.

It is a fact that the EU's 2014 Technology Transfer Guidelines, including the soft safe harbour for technology pools, have greatly contributed to the emergence and subsequent wide market acceptance of joint SEP licensing programs such as those that are offered by Avanci. Today more than 300 million connected vehicles from more than 150 brands are covered by an Avanci 4G or 5G Vehicle license. According to third party studies, both Avanci 4G and 5G Vehicle cover more than 90% of the patent claims essential to cellular technology and, at the same time, almost 80% of all connected vehicles worldwide are covered by an Avanci Vehicle licence.[4]

More broadly, the SEP licensing ecosystem as whole works well. On the one hand ever more companies invest in research and development (R&D) for standardized technologies such as cellular.[5] On the other hand, more and more companies bring to market products

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[2] MLEX: EU guidance on carmaker's SEP licensing 'unfortunate', US DOJ's Dina Kallay says, 10 October 2025; MLEX: US DOJ, EU engaging over concerns about auto-licensing group, Kallay says, 27 March 2026; MLEX: BMW, Volkswagen, others under US DOJ antitrust investigation over licensing, 23 March 2026.

[3] U.S. Trade Representative, 2026 Special 301 Report, 30 April 2026, p. 40, https://ustr.gov/sites/default/files/files/Press/Releases/2026/2026%20Special%20301%20Report.pdf.

[4] See, for example, LexisNexis: Who is leading the 5G patent race?, 2025.

[5] Where there were 14 different SEP holders for 2G, more than 130 companies had declared patents that are or may become essential for 5G by 2021. Bekkers, R., Duysters, G., Verspagen, B., "Intellectual property rights, strategic technology agreements and market structure: The case of GSM", Research Policy, 2002, No. 31, pp. 1141-1162, https://www.researchagte.net/publication/239904150_Intellectual_Property_Rights_Strategic_Technology_Agreements_and_Market_Structure_The_Case_of_GSM; LexisNexis: "Who is leading the 5G Patent Race?", 2023, https://go.lexisnexisip.com/hubfs/Who-Is-Leading-the-5G-Race-2023.pdf?hsCtaTracking=92a53284-67cf-48b4-a0ee-aa4c7f121c3e%7C393d4929-5ef8-41e6-acc0-9da87e3b5d12.

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and services that implement standardized technologies, including cellular-connected devices.[6] In other words, the SEP licensing ecosystem is healthy and attractive enough for increasing numbers of companies to participate, whether as a technology holder or as an implementer. The innovation that occurs on both sides works to the benefit of consumers, who are able to acquire devices that incorporate the latest generations of standardized technologies; and it has enabled a global market.

Jeopardizing this global success by impeding the functioning and formation of independent intermediaries such as Avanci, or pools more broadly, should not be undertaken unless based on factual evidence of (severe) market failure – which does not exist.

Avanci encourages the CMA

- **to abstain from any guidance complicating the operation of technology pools,**
- **to take the economics and viability of technology pools into account, and**
- **continue to refrain from validating LNGs and discourage their formation**

General remarks on technology pools

Technology pools have been seen as pro-competitive by authorities around the world for decades. In fact, the very first technology pool was established in 1856. The Sewing Machine Combination played a crucial role in globally disseminating a technology that, at the time, was groundbreaking and enabled the commercial development of an important product of the Industrial Revolution. And today, as then, technology pools continue to serve a number of pro-competitive functions: they increase transparency, reduce transaction costs and can lead to less litigation.[7]

The pro-competitive effects of technology pools are widely recognised. Technology pools facilitate the dissemination and broad adoption of standardized technologies, promote innovation, and generally do not give rise to competition concerns if they respect long-established antitrust guidelines. Most recently, the CMA itself recognized the "significant importance" that technology pools have played in "modern technology licensing".[8]

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[6] The total number of cellular IoT connected devices is expected to grow from 1.7 billion in 2022 to 5.4 billion in 2030, https://www.transformainsights.com/research/forecast/highlights.
[7] Mossoff, A.: The Rise and Fall of the First American Patent Thicket: The Sewing Machine War of the 1850s, Arizona Law Review, Vol 53, pp. 165-211, 2011; https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1354849.
[8] Competition and Markets Authority: Final recommendations to the Secretary of State. Assimilated Technology Transfer Block Exemption Review, 2025, paragraph 2.90.

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Technology pools have been endorsed as a means of reducing transaction costs, enhancing legal certainty, and providing access to standardised technologies.[9] Successful and widely accepted technology pools exist in various industries, including consumer electronics, telecommunications, and biotechnology.

The European Commission as well as other authorities have actively advocated for the creation of technology pools.[10] Moreover, case law of a number of countries acknowledges the role of technology pools in fostering competition and innovation. For example, the Düsseldorf District Court held that technology pools serve a pro-competitive function by offering potential licensees access to standardised technologies under uniform conditions, so reducing the burden of individual licensing negotiations.[11] Avanci Vehicle today represents over 8,000 agreements that would otherwise have needed to be negotiated and agreed bilaterally.

Avanci itself has innovated upon existing models, for example as an independent licensing platform (as opposed to a licensor-owned or controlled pool), and featuring discovery of a market price that all constituencies can accept. As a result, SEP litigation has been greatly reduced with respect to products and services where a pool licensing option exists for such products and services.

Joint licensing is widely recognized as not only saving transaction costs both sides, but also for "… 'tend[ing] to produce lower rates than those that could be achieved through bilateral negotiations,' such that 'a rate higher than a pool rate could still be [F]RAND.' "[12] Joint licensing can also enable a true global level playing field as most technology pools offer licenses on the same terms and conditions to all potential licensees. This gives licensees the comfort of knowing that their competitors, irrespective of where they are based and in which markets they operate, do not pay less for the same joint license.[13]

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[9] Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee "Setting out the EU approach to Standard Essential Patents", 29 November 2017, point 2.3; Nikolic, Igor, Licensing Negotiation Groups for SEPs - Collusive Technology Buyers Arrangements: Pitfalls and Reasonable Alternatives (September 19, 2021). les Nouvelles (December 2021), p. 351.

[10] European Commission: Communication on Setting out the EU approach to Standard Essential Patents, COM(2017) 712 final, p. 7; China's National Intellectual Property Administration (CNIPA): Annual Work Guidelines for Demonstration and Creation of a Strong Intellectual Property Nation (2026) https://www.chinaiplawupdate.com/2026/05/cnipa-releases-the-annual-work-guidelines-for-demonstration-and-creation-of-a-strong-intellectual-property-nation-2026/.

[11] Düsseldorf District Court, Judgment of 11 September 2008 – 4b O 78/07.

[12] U.S. International Trade Commission, *In the Matter of Certain Video Capable Electronic Devices, including Computers, Streaming Devices, Televisions, and Components and Modules Thereof*, Inv. No. 337-TA-1380, Dec. 20, 2024 (internal citations omitted).

[13] The European Commission has previously voiced concerns that competitors of European carmakers do not appear to be licensed. European Commission: Report on the protection and enforcement of intellectual property rights in third countries, SWD(2025) 131 final, p. 18.

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These widely acknowledged benefits should be safeguarded by authorities around the world to ensure that the sharing of technologies between different industry sectors can continue to be organized in a simple and efficient way.

Market dynamics of technology pools

Both licensors and licensees appreciate and benefit from the efficiency of joint licensing – the more the merrier. As a technology pool increases participation from new licensors, the greater the value realized by pool licensees. And as a technology pool increases participation from more and more licensees, the more attractive it becomes to potential licensors. However, to reach a critical mass of both licensors and licensees often can take a considerable time as well as, of course, effort by the technology pool itself.

Joint licensing also differs considerably from bilateral licensing. First, the obvious: whereas a bilateral licensing agreement only involves two parties, a technology pool involves often dozens or more parties. A technology pool may start out with a low number of licensors but gain more over time.[14] Conversely a technology pool may launch with one licensee but later gain many more. The growth on both sides is non-linear, hinging on each participant's decision whether instead to go bilaterally. So no pool is certain to gain traction.

The lifespan of a successful technology pool can be seen as having four phases:

I. Formation
II. Growth
III. Maturation
IV. Sunset

The formation phase is triggered when an initial market need becomes apparent. The impetus can come from simple market observation (e.g., a certain technology is implemented in a new product segment, or a certain service starts to derive substantial value from a technology); and may emanate from SEP holders, or from conversations with potential licensees. There then follow initial separate conversations with market participants, i.e., relevant SEP holders and implementers, making it possible to gauge whether there is a wider market interest in such a program. These individual conversations often take place over many years, and with each discussion it becomes a little bit clearer what the key program terms, i.e., the compromise on a set of terms that have the potential to gain wide acceptance by both implementers and licensors.

[14] In the case of Avanci Vehicle, to the benefit of licensees who see the coverage of their license grow without having to do anything.

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The formation phase runs until a program is launched. For Avanci, this means that at least a critical mass of SEP owners have decided to join; and that at least one implementer decides to take the licence, so demonstrating initial market acceptance. Typically the launch of a new program takes place when some implementers have started selling products or services implementing the technology.

The launch in Phase II will kick off wider public awareness and increased licensing efforts. Additional SEP owners and implementers are recruited to the program. This is also when, outside of the public eye and typically unacknowledged, the back-end operation and tooling take place, i.e. systems are put in place by the pool operator and developed to deal with the increasing number of royalty reports from licensees, and royalty allocation between a growing number of licensors. This growth phase can last many years.

The maturation phase is typically when a joint SEP licensing program gains wide acceptance and more patent owners join, and the program has reached notable implementer penetration as the technology is widely adopted. If the program has been set up correctly, i.e. set up in way that it is meeting the needs of implementers and patent owners, it will become a true one-stop shop. If the program has so far been successful, this is typically also the point in time when consideration of a follow-up program will commence, to address the next generation of the technology and products or services.

After many years of operation, and depending on the evolution of the next generation of technology, a program will reach the sunset phase. It could be that fewer products or services using the technology are being sold, and the operations side of the program will start to wind down. This phase runs until licensees have transitioned to the next generation of technology (e.g., 4G giving way to 5G).

All phases of the lifespan of a technology pool pose their specific challenges, and it can take years to establish proof of concept. It is important more fundamentally to note that the formation phase by no means always leads to a launch, such that there will be no return on the considerable time and resources invested in promoting the proposed pool.

The formation and continued growth of technology pools is a delicate and non-linear process, and any joint SEP licensing program will ultimately only gain wide acceptance if it is set up the right way, including scope of licence, price and many other terms that make up a licence agreement, and continues to address changing market needs. Otherwise SEP holders and implementers always have the option to license bilaterally.

Avanci asks the CMA to take these characteristics of joint SEP licensing into account in its continuing work on the draft Guidance, to recognise the economics and dynamics of pool formation, rather than focussing solely on the operational phase of pools that do launch.

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Further, Avanci asks the CMA to be conscious of fixing pool operators with over-burdensome ongoing maintenance requirements, which would come at a disproportionate cost – and feed negatively into the prior business decision whether a prospective new pool is likely to be viable in the first place.

And in all this it will be constructive for the CMA to recognise that technology pools are never static and to highlight the optionality of technology pools. Taking a license through a technology pool is never more than an option, just as licensing one's patents via a technology pool is an option. However, not taking any licence is not an option.

Safe harbour for technology pools

The draft safe harbour for technology pools (11.116) contains two new provisions compared to the EU's 2014 Technology Transfer Guidelines:

1. effective disclosure of technology rights included in the pool, and
2. effective disclosure of the methodology used to assess essentiality.

Avanci considers these additions to be superfluous and potentially detrimental to the efficient functioning of technology pools.

1. Patent lists

The draft Guidance contains new language at 11.116 (b) as follows: "the technology rights included in the pool are disclosed in an effective manner to potential and existing licensees". In footnote 225, "effective disclosure" is defined as "at least the patent number or patent application number where that information is publicly available, and the country of registration". Furthermore, technology pools are urged to update this disclosure at "reasonable intervals upon request."

These few words have the regrettable potential to undermine and upset the functioning of pool licensing as it operates today, and for no good reason. Absent evidence of (severe) market failure, no such change is required. Innocuous as these new words may seem, in reality they do hold potential for disruption.

It is important to understand that current practices of technology pools sufficiently identify the rights licensable by such technology pools. Avanci works with a "definitional" approach in line with decades of common industry practice; which has been lauded by the US

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Department of Justice;[15] and which has found favour with the multitude of licensees that participate in Avanci's programs.

The "definitional approach" gives licensees the benefit of a license to all relevant patents regardless of inclusion in any list. The coverage of the Avanci 5G Vehicle license, for example, extends to patent claims that are essential to 2G, 3G, 4G and 5G and owned or licensable by all the licensors who participate in the Avanci 5G Vehicle program during the term of the license. This has multiple benefits for licensees:

1. All essential patent claims are covered, whether they form part of any list or not.
2. Newly granted SEPs to any licensor are automatically covered by the license agreement without additional administrative effort on their or Avanci's side.
3. The license automatically extends to the SEPs of any licensor that joins during the term of a license.
4. By definition, not a single non-essential patent claim is covered by the Avanci 5G Vehicle license.[16]
5. Any SEP that a licensor may transfer to an entity that is not at that time an Avanci licensor will nevertheless remain licensed to the licensees.

In contrast, the scale of the exercise that would be involved in compiling comprehensive patent lists renders such a requirement disproportionate: while some technologies may involve no more than dozens or hundreds of SEPs, other technologies encompass thousands or even tens of thousands. For example, cellular standards are complex and dynamic. There are potentially more than a hundred thousand patent claims essential to 2G, 3G, 4G and 5G.[17] New SEPs are continuously granted by patent offices around the world to the numerous entities worldwide that hold cellular SEPs.[18] Standards are also highly dynamic, so a patent that is not essential today may become essential in the future. It would require an entirely disproportionate administrative effort by each of the more than eighty licensors that participate in Avanci 5G Vehicle, for example, and Avanci itself, to ensure that a patent list is comprehensive and up-to-date at any given time.

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[15] The U.S. DOJ: Avanci Business Review Letter (28 July 2020).

[16] In the Avanci Vehicle programs, licensees can elect to include in their license patents declared as essential to the cellular standards.

[17] LexisNexis: "Who is leading the 5G Patent Race?", 2023, https://go.lexisnexisip.com/hubfs/Who-Is-Leading-the-5G-Race-2023.pdf?hsCtaTracking=92a53284-67cf-48b4-a0ee-aa4c7f121c3e%7C393d4929-5ef8-41e6-acc0-9da87e3b5d12.

[18] In 2024 alone, more than 100,000 patent families have been declared as essential (or as potentially essential in the future) to the 5G standard. The declaration database of the European Telecommunications Standards Institute (ETSO) currently contains over 550,000 patents that have been declared as essential (or as potentially essential in the future). See, LexisNexis: Who is Leading the 5G Patent Race, 2025, p. 7.

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That additional administrative effort would potentially yield marginal benefits at best, which would be more than offset by undermining the efficiencies made possible by technology pools. In Avanci's experience, implementers typically negotiate with SEP holders bilaterally and, in parallel, discuss the possibility of an optional, joint license through Avanci. In the bilateral negotiations, claim charts and other relevant documents pertaining to the SEP holder's SEP portfolio, including exemplary patent lists, are typically exchanged to facilitate technical discussions. Avanci also encourages potential licensees to engage bilaterally with licensors if they have technical questions about a particular portfolio. Importantly, in Avanci's experience, potential licensees are far more interested in which licensors participate in any of its programs than in a patent list.

Avanci suggests maintaining the wording of the EU's 2014 Technology Transfer Guidelines with respect to the safe harbour. Alternatively, should the CMA decide to follow the approach taken in the revised EU Technology Transfer Guidelines, Avanci presses the need to clarify, for the avoidance of doubt, that effective disclosure can be achieved by means other than comprehensive patent lists, provided licensees are able to make an informed decision as to whether to take and keep a pool license. And beyond that, to confirm (as the European Commission has done) [19] that there is no requirement for the pool to assess the essentiality of every technology right included in the pool.

2. Disclosure of evaluation methodology

Paragraph 11.116 (c) includes new language compared to the EU's 2014 Technology Transfer Guidelines as follows: "[…] the methodology used to conduct essentiality assessments is disclosed in an effective manner to existing and potential licensees". Footnote 226 defines "effective disclosure" here as "at least an explanation of the scope of the essentiality checks (including any sampling technique), the content of the checks (for example which elements are assessed) and the criteria used to select the assessors (for example, regarding expertise and independence)". Furthermore, technology pools are urged to update this information "at reasonable intervals upon request".

The implicit factual assumptions behind this language are not correct.

To put this in wider context, the starting point must be the impossibility of listing all patents (see above). Undertaking essentiality checks on all these innumerable patents would be a not merely Herculean task but in fact simply unachievable. A measured and focused

[19] Paragraph 17 of the explanatory note summarising the main changes in the revised Technology Transfer Block Exemption Regulation and the accompanying Technology Transfer Guidelines compared to the versions adopted in 2014, 16 April 2026, https://competition-policy.ec.europa.eu/document/download/07c21a9b-eafc-4807-abb8-823b3e22ea18_en?filename=20260416_TTBER_explanatory-note.pdf.

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sampling and testing of declared patents has proved itself entirely sufficient; and indeed the draft language refers to sampling.

Avanci conducts essentiality review (1) to confirm a patent owner's eligibility to participate and (2) for the purposes of calculating patent points for royalty distribution purposes. Since the royalty that Avanci charges does not increase as more SEPs become covered by the Avanci license, there is no commercial justification for expending the time, resources and cost on a hopeless exercise to try to evaluate essentiality for vast numbers of patents, still less all or most of the patents concerned.

Over the years Avanci has had thousands of submitted claim charts evaluated by its global network of independent patent attorney experts. These experts follow a process crafted by Avanci and which Avanci administers, maintaining a quality control protocol for ensuring consistency and objectivity of results across evaluators, portfolios and jurisdictions.[20] As the European Commission has acknowledged, technology pools already offer "better scrutiny on essentiality"[21]. This also highlights that there are proprietary, confidential and privileged aspects to the evaluation process (for pool operators and licensors), the protection of which is critical to the proper functioning of the licensing market.

For the reasons above, and consistent with Avanci's position on the patent list disclosure requirement, Avanci suggests maintaining the wording of the EU's 2014 Technology Transfer Guidelines with respect to the soft safe harbour.

[20] This process and methodology are informed by the combined decades of experiences that Avanci personnel has in various high-profile and leading roles in SEP licensing. Accordingly, Avanci considers its evaluation process and methodology commercially and competitively sensitive information which Avanci will not disclose above and beyond the description offered here and on its website.

[21] European Commission: Communication on Setting out the EU approach to Standard Essential Patents, COM(2017) 712 final, p. 7.