Response to Call for Inputs on Assimilation of Technology Transfer Block Exemption Regulation 2014 (TTBER) and Accompanying Technology Transfer Guidelines (TTGL)

Overview:

This response will generally be supportive of the guidelines in their present form, although some new issues have arisen since 2014 that both deserve attention and have been mentioned in the ongoing consultation around the revision of the 2014 regulation and guidelines in the European Union (EU). The response discuss a few of these in brief, and is intended neither as a research document nor an exhaustive treatment.

Answers to the specific questions follow:

Q1. Stakeholder information (questions 1 and 2):

Answer: I am a UK academic but am responding in a personal capacity. I have some background in the European TTBER and TTGL, as I co-authored a background paper for the 2014 revision of both documents. I have general economics training, rather than expertise in a particular sector.

Q2. Benefits and Impacts on Competition (questions 3-6) and Benefits of a Block Exemption over Self-Assessment (questions 7-8)

Answer: A recent study by the UK Intellectual Property Office found that IPR-intensive industries accounted for almost 27% of UK non-financial value-added output, over 15% of total UK employment, and more than 52% of exports[1]. Clearly, then, competition in IPR-intensive industries is a key issue for the UK economy. Building innovations on and disseminating IPR for the purposes of generating the commercial activity that creates benefits for consumers involves technology agreements. As pointed out in the consultation document, parties to those agreements are required to self-assess the competitive implications of these agreements and their compatibility with competition policy. Judges must also evaluate this compatibility in cases that reach the court. The TTBER and TTGL are, then, important tools to guide that self-assessment and those judgements.

Both documents have received broad support from most parties in the EU consultation that is part of the scheduled revision of the 2014 TTBER/TTGL[2]. The main advantage of these documents, also recognised by parties to that consultation, is that they increase regulatory certainty about the legal treatment of innovation-related agreements among firms and ensure that technology transfer agreements, which are a crucial building block of innovation, promote consumer welfare and economic efficiency. Regulatory certainty is particularly important where innovation is involved, as this activity often requires substantial up-front investment and so imposes risk on the innovator. Increased regulatory certainty helps to place bounds on that risk. Furthermore, innovation often involves the interaction between two bodies of law, intellectual property law and competition law, which can increase the areas where ambiguities arise. This interaction also means that the dynamic effects on competition and welfare must be evaluated, which can be more complex than static assessment. Finally, innovation naturally involves new and unfamiliar challenges for all parties, be they innovators, users, or regulators, that must be navigated and might not normally take centre stage.

Clearly, then, the TTBER and TTGL play an important role. We do not observe the counter-factual of competition in the absence of such documents, although the overall claims of usefulness in past responses to consultations goes some way to reassure. One can speculate, however, that if the TTBER and TTGL were absent, the main effect would be that firms would need to rely more on self-assessment in their design of technology agreements, and possibly rely on judicial evaluation of which behaviours are or are not compatible with competition policy. This heightens the cost of

[1] See "Use of Intellectual Property Rights Across Industries", UK Intellectual Property Office, 9 June, 2022, available at https://www.gov.uk/government/publications/use-of-intellectual-property-rights-across-uk-industries/use-of-intellectual-property-rights-across-uk-industries#:~:text=Industries%20with%20an%20above%20average,159.7%20billion)%20of%20goods%20exported.

[2] See the current consultation on the revision of the 2014 guidelines being undertaken by the EU at https://competition-policy.ec.europa.eu/public-consultations/2023-technology-transfer_en, which is slightly more advanced than this consultation and so already contains responses to the 2014 guidelines and regulation, including its interaction with the Horizontal Guidelines.

entering into agreements and in generating information on best practice in designing agreements. Increasing the cost ultimately feeds back into reduced technology transfer and given the ample evidence from both theory and empirical work of innovation's contribution to economic welfare, would likely be socially undesirable[3].

There are some areas where the baseline 2014 documents could be updated and adapted to the UK context, however, given the new issues that have been raised, changes in practices that have occurred, areas where residual uncertainty exists, and adjustments of the regulation/guidelines to the size and composition of the UK economy. This note will focus on issues of (1) how to address licensing negotiation groups, (2) the increased importance of data, (3) guidance around patent pools, and in particular standard setting organisations, (4) modified grant-back provisions, (5) the appropriate levels of thresholds, and (6) coherence with the European revision of the same guidelines. These points will be reorganised to fit into the questions you pose, below.

These will be developed below. I will treat the regulation and guidelines together for much of what follows, as most issues span both documents.

Q3. Scope: (including clarity of definitions of technology right, covered agreements, and competing undertakings, questions 9-11)

Answer:

(1) "Technology rights":

Data: The increased importance of data, including as part of the developing Internet of Things, is a notable change since 2014. Data are not addressed directly in the 2014 regulation or guidelines, even though they are fundamental to innovation, among their other functions, as a research tool. Know-how is covered in the TTBER/TTGL, however. As some data are protected via trade secrecy, this portion of the documents would presumably cover data licensing agreements where data are part of know-how. In other cases, however, data are protected differently, so such data could instead fall under other parts of the TTBER/TTGL as a technology right. As data are both licensed and granted back via license, sections around grant-backs and cross-licensing also pertain to data exchange.

It would be well to clarify how they are and should be covered, if at all, by the TTBER/TTGL.

The TTBER/TTGL are limited to exchange that contributes to improvement in production or distribution of products or promoting technological or economic progress, allowing consumers their fair share of the gains, and are neither dispensable whilst attaining these goals nor tending to eliminate competition. Hence, the first consideration is that this remit severely limits the type of data that is relevant to the documents.

As the TTBER/TTGL define their scope as including technology rights and know-how, the data that are relevant to these documents and the innovation process function as research tools, and possibly essential research tools. As a (pure) research tool, the data do not have value in themselves, but they may, in combination with other inputs, generate innovations. In terms of the riskiness that was discussed in the introduction, above, data do not necessarily require the up-front investment that other innovation does; however, the modified intellectual property protection afforded to data, to the extent that protection is available outside of trade secrecy, already takes into account the reduced investment that can be involved in data generation. This aspect of data need not be taken into account again in these documents.

As research tools that are covered by wide forms of intellectual property are already included in the TTBER/TTGL's general definition of technology rights, it is not clear that the relevant

[3] See, for example, Klette, T., and S. Kortum (2004) "Innovating Firms and Aggregate Innovation," *Journal of Political Economy* 112(5), 986-1018 for theoretical modelling of innovation's contribution to growth, matched with stylised facts and an extensive reference list. More recent work, based on this modelling, has found that innovation contributes significantly to economic growth and welfare (see Guner, I., "Growth and Welfare Implications of Sector-Specific Innovations," *Review of Economic Dynamics* 47, 204-245)

data pose fundamentally new issues to the TTBER/TTGL. In that sense, it may be enough to include data explicitly in the list of covered technology rights and the list of know-how, where that data is relevant, with no further comment. This would clarify that data can qualify as part of the covered technologies or know how. For other types of data, which do not fall within the bounds of technology rights or know-how that contributes substantially to the production of products or processes, it would be well to specify that these are not covered by the TTBER/TTGL. Instead, activities around these data would fall under other guidelines (such as the horizontal or vertical guidelines). Drawing attention to the relevant portions of the TTBER/TTGL could make sense as well so that key provisions are underlined. Paragraph 140 (TTGL) seems particularly relevant to data, for example.

(2) "Covered agreements":

Standards and standard setting organisations (SSOs): Standards and standard setting are covered by a framework of regulation that is much wider than the TTBER/TTGL, notably including the Horizontal Guidelines. In contrast, the TTBER restricts attention to technology transfer agreements that are not multi-party and so excludes aspects of technology pools and, similarly, the internal structure of standard-setting organisations. Furthermore, in terms of licensing contracts by the SSO or its SSO members, there is overlap with restrictions from contract law. For example, whether a FRAND agreement has been respected in a particular agreement could well be treated as a contract law issue.

As a result, the landscape of regulation pertaining to SSOs and pools is quite complex simply because different aspects of SSO and pool activity is covered by different documents. Further, there is linkage among the elements of this framework, for example the method of setting FRAND payment levels may have implications for the optimal structure of licensing activity (developed more below in the discussion of licensing negotiation groups). As a result, problems from the perspective of one document on its own might not be problems when considered within the framework set by another sister document.

Furthermore, due to developments such as the Internet of Things, standards have become important to industries for which they heretofore had not been of primary concern. This means that many organisations that are unfamiliar with standard setting may be entering into this area for the first time. Providing both a clarification of what is included in the TTBER/TTGL and a better roadmap to the documents that govern pools and SSOs could help to provide needed certainty for such firms.

This could suggest that a roadmap would be useful. There is some flexibility, however, on where to place overall guidance on how to make SSOs and patent pools function as efficiently as possible from the perspective of decreasing market imperfections (such as asymmetric information in technology transfer negotiations) and transaction costs involved in technology transfer. This is likely not best placed in the TTBER/TTGL, which are intended to be a targeted document around technology transfer only. An umbrella document containing a more general roadmap and best practice could be referred to as part of the TTBER/TTGL to assist users in navigating this landscape. Currently, there is some reference to other documents within the TTBER/TTGL, but they are not always well targeted. Tightening these up could be useful.

The extensive treatment of patent pools in the TTGL and minimalist treatment in the TTBER could also create some confusion. Patent pools are included within the TTGL on the basis that many of the issues around technology transfer from and to pools are similar to standard bilateral licensing issues. At the same time, the TTBER excludes arrangements to set up pools and third party licensing in paragraph (7), but do not include any positive statement of what is included from pool activity (this is left implicit). In the guidelines (only) standard setting organisations are listed as a manifestation of such pools.

This dichotomy between the regulations and the guidelines is somewhat difficult to square. If one accepts that the block exemption establishes the minimum that is acceptable for a safe harbour, while the guidelines not only flesh out the points but also give guidance on where a firm falls short, then this dichotomy might be sensible: the TTBER must naturally be more

conservative and briefer than the guidelines. Still, a middle road could be to introduce into the TTBER at least a positive statement of the sense in which technology pool activity will be considered.

A final issue is whether the restriction to two-party agreements (see TTGL paragraph 54) should be reconsidered. This likely would be premature, as it would introduce a wider set of issues for which the literature is unsettled. In the spirit of restricting the TTBER to issues where one is relatively sure of the effects, restricting attention to agreements that are not multi-party makes sense. The guidelines are intended to be sufficient conditions for exemption, after all, so a minimalist approach seems sensible.

Licensing Negotiation Groups (LNGs): Some have proposed (see ongoing EU consultation on this same set of documents) that licensing negotiation groups are the "mirror image" of patent pools/SSOs and so should be viewed favourably in the same way as patent pools generally are. This could argue for their inclusion within exempted activities.

This argument is not correct for several reasons, however. First, patent pools/SSOs resolve a problem of "Cournot complements", where complementary input pricing is not coordinated and can lead to excessive input pricing. If one takes the extreme case where all inputs are complementary and essential, each input on its own commands monopoly power in input price negotiations, since its contribution is necessary to make the full system work. Clearly, if each input demands monopoly price, the market for the final output will collapse due to excessive input costs. This negative externality can be controlled via the pool's price coordination and so the pool has a positive effect on welfare by allowing the output market to function.

Buyer side agreements solve no such Cournot complements problem. Quite the contrary, the implementers of a standard (or any set of pooled technologies) will tend to be substitutes, not complements, and so coordinated purchasing will be a hardcore restriction, which would generally be excluded under paragraph 14 (TTBER).

Some have said, however, that without a means of exchanging information on the buyer side, a FRAND commitment means little since there is no way for the buyers to know if it has been implemented without observing what prices others have been quoted and in what circumstances. In other words, the LNG solves an asymmetric information problem in the technology market and so promotes improved functioning of that market.

Again, this is not fully correct, as any asymmetric information does not necessarily have to be solved by creating buyer groups. To the contrary, *ex ante* disclosure requirements by licensors can affect the precision with which FRAND royalty levels can be defined and revealed to all parties. As such, *ex ante* disclosure can reduce the bargaining failures that LNGs purport to address. *Ex ante* disclosures are not part of the remit of the TTBER/TTGL, of course, and instead are more properly dealt with in the Horizontal Guidelines. Still, they illustrate that the different parts of the regulatory framework for pools and SSOs interact. *Ex ante* disclosures that would properly be contained within the Horizontal Guidelines affect the environment in which licenses are negotiated at a later stage, which fall within the TTBER/TTGL remit.

Furthermore, it should be noted that where licensees request confidentiality in the agreements, the asymmetric information problem just cited is likely not the cause of the problem. Finally, in order to resolve such an asymmetric information problem fully, all buyers would need to join the LNG, which would be quite problematic from the perspective of hardcore restrictions.

If LNGs are not to be included, then a nod to why, referring to the appropriate portion of the Horizontal Guidelines, could form a sensible comment within the TTGL.

Q4. Market Share Thresholds (questions 12 and 13)

Thresholds (generally): There are several points where numerical thresholds come into play in the TTBER/TTGL: market share thresholds, a threshold of 4 or more independently controlled technologies for the likelihood of any competitive concern under the documents, a two-year period to evaluate effective entry, and a two-year period to recoup investments under the passive sales provisions (paragraph 126, TTGL) and where investments are substantial.

The use of thresholds creates the usual problems of a switching points of one regime to the other and the incentive for strategic behaviour around those points. On the other hand, thresholds provide useful clarification as they comprise easily defined and observed benchmarks. Some have suggested (again, referring to consultation responses to the EU revision of these documents) specifying the desired outcome rather than numerical levels so that different market structures can be accommodated where, for example, two alternatives might be enough to constitute an effective competitive constraint. In other words, one could consider saying "effective competitive constraint" in place of "4 or more technologies" or "normal recoupment period for the industry" instead of "2 years". At the same time, without an accompanying outcome measure, such statements are open to interpretation. This can lead to disputes, uncertainty, and ultimately, cost. Further, the nature of the block exemption is that even if the safe harbour does not apply, each individual case should be considered on its merits. This means that the thresholds in no way preclude the possibility of adjusting to industry conditions through individual case consideration. As noted above, these documents are meant to establish sufficient conditions for safety, so that they (in particular the TTBER) are naturally conservative.

Even as measures where one is sure of safety, however, the numerical thresholds may still be inappropriate given that the UK market is considerably smaller than the European Union, to which the previous thresholds applied. For example, four independently controlled technologies might be a big ask for the UK market. Indeed, one could think that the four technology requirement on top of relevant market share thresholds might be excessive: one or the other might be enough. On the other hand, market shares may give information on the technologies and their acceptance that a pure count does not do: a technology with 90% market share may not be of the same quality as one of four technologies that split the market evenly. The network effects would differ significantly between these two structures if nothing else. At the same time, it may not be sufficiently informative to use market shares on their own, as it is less clear in technology markets that economies of scale exist: if a technology simply exists and possible to use, it may create an equally effective competitive constraint as a technology that is widely used. Hence, for technology markets, both the pure count information and the market share information are important as they say different things about the effective competitive constraint. The guidelines should rightly rely on both, albeit with perhaps an adjustment from four to three independently controlled technologies. Some statement on what would happen if both of these requirements are not satisfied could also be useful: for example, it might be the case that markets with one technology with a dominant market share would be more prone to objections than markets that are split evenly.

Two years is likely short as a recoupment or entry period, even if one recognises that the documents must err on the conservative side. On the other hand, the burden of proof is on the parties that entry is imminent so that long horizons are not realistic if one wishes to have accurate predictions and a relatively stable market environment to evaluate. In this sense, two years is an appropriate measure, with anything outside of two years requiring careful justification. Furthermore, the guidelines already note that two years is just a default position, and different time horizons are possible subject to discussion. Overall, then, the two-year measure likely is best kept unchanged.

In terms of whether four technologies, two years, and the current levels of market shares are the "correct" measures for the UK, one alternative is to conduct an empirical investigation of the UK market to determine whether industries with fewer technological alternatives or longer entry periods are observed to create difficulties. The track record exists to conduct this type of analysis and would allow the new threshold to be both appropriate and well-evidenced. As there is some time before the documents must be accepted in their final form, there may be time for such an analysis. Leaving the thresholds as they are on the strength of the size and

diversification of the UK economy, even if it is not quite as big as the European Union, would, however, be a reasonable course if one lacks such a study. Again, the documents create a safe harbour, which must be conservative in the end. Being conservative and leaving the thresholds as they are likely coincide.

Q5. Hardcore and Excluded Restrictions (questions 14, 15, and 16)

Grant-backs –The 2014 TTBER/TTGL were revised from the 2004 version, including modifications to the treatment of no-challenge clauses, termination clauses, and grant-backs. Only the latter will be addressed here, as the argument may be a bit more complex than for the other two, although this contributor supports the modifications to the no-challenge clauses and termination clause treatment in the 2014 documents as well.

The change in the 2014 treatment of grant-backs eliminates the distinction between the treatment of severable and non-severable innovations and instead focusses on the distinction between exclusive (not falling under the TTBER) and non-exclusive (falling under the TTBER) licenses. There are several justifications for this change.

First, it may be difficult and possibly costly in practice to determine whether an innovation is severable or non-severable (roughly speaking, non-infringing or infringing), certainly for a regulatory authority.

Second, the 2004 guidelines viewed grant-backs of severable improvements as potentially more problematic than those of non-severable improvements. Non-severable improvements fall within the intellectual property of the original licensor, so the original licensor retains control rights over such improvements by dint of being able to withdraw consent to use the original technology, forcing the non-severable improvement into infringement (by definition). This would leave the licensee in breach of the licensor's property rights and unable to exploit its improvement. In such a bargaining situation, the original licensor can extract the full value of its original technology's non-severable offspring (net of the cost of development). At the same time, the licensor will have an incentive to allow the licensee to develop the non-severable improvements since this adds value to the original licensing proposition – a value that the licensor can extract by dint of non-severability as we have argued. As such, grant-backs are not necessary to ensure full innovation incentives for both licensor and licensee, nor are they necessary to ensure that the value is split such that all parties are left whole.

On the other hand, a severable improvement potentially allows the licensee to escape the rights of the original licensor. Indeed, avoiding continued payment for the original license may have been the spur to innovation. This competitive threat from the licensor's own offspring, without a right to compensation, can make the original licensor reluctant to license in the first place. Indeed, if we observe licensing at all when such a competitive threat is looming, we should expect that licensing contract to include a grant-back provision.

As such, the 2014 guidelines were an improvement over the 2004 guidelines: they redress what was an "inverted" balance between severable and non-severable technology licensing. They also eliminate the need for regulators to measure severability, which may be difficult in practice without recourse to a full (and expensive) judicial process.

Q6. Technology Transfer Guidelines (questions 17-19)

Licensing to "All": An area that has caused some confusion is the use of the word "all" in paragraph 261(e) (TTGL), which can be taken to imply that licensing must occur at all stages of a value chain. This is not necessary or even desirable. What is important to the licensor is that a revenue target be met to cover the cost of investment, and which normally has been specified in the FRAND calculation; what is important to the downstream industry is that access to the technology be available to those who need it in the implementation process.

Licensing at one of many levels of a vertical chain can achieve this goal of accessibility and revenue. Indeed, exhaustion of the patent right usually suggests that technology can be

licensed at most at one level, so there is not a question of licensing to all levels. This still leaves the question of whether a specific level should be specified.

One possibility is to license at the level that is closest to market. Where there are relatively few final implementers and where the technology allows for improved working across a large percent of the product, this choice of level may be the one that minimises transaction costs of licensing because it allows for the fewest negotiations and the best estimate of the full benefits of the technology. Where the technology applies to a single component, which plays a minor role in the overall functioning of the final product, licensing farther from market may be the better option. Licensing at both levels need not occur: the license can set a fee as a percentage of the price of the component or a percentage of the price of the final output, and by varying that percentage any target figure can be attained from licensing at a single level. Further, access can be written into the agreement, if this is necessary, to allow for free use of the technology by those who need it to assemble the final product. The level can, then, be left to practice with the only restriction that regardless of level there should be no combination of implementers who can be blocked from access.

Clarifying this use of “all” (and/or deleting the word) would, then, be useful in this description of the safe harbour.

Q7. UK adaptations (questions 20-21)

See the answers around thresholds, above.

Q8. Any other considerations (question 22)

Summarising, the TTBER/TTGL do not need major changes at this point. They could be tweaked, however. Licensing negotiation groups could be addressed in the text, as not equivalent to patent pools; the inclusion or exclusion of data as a technology right could be made explicit; the landscape of patent pool and standard governance and even its treatment within the TTBER/TTGL could be mapped out more cohesively (in these documents and/or elsewhere), thresholds could be tweaked, and minor wording changes could be made to eliminate some of the confusion around licensing to multiple levels of the implementation value chain. Some provisions are best left alone, despite any controversy, including the 2014 revisions to grant-back treatment. There could be benefit to considering empirical research to confirm that the thresholds are appropriate to the UK environment.

A final issue is the coherence of whatever revision is pursued with evolving EU law. Many of the firms that transfer or receive technology in the UK operate in Europe as well. While there is no need to fully align one law to the other, changes that impose additional burdens on the firms that must navigate both systems are likely best avoided or minimised if possible. Many of the same issues will arise in both the EU and the UK revision of the 2014 law, which is why this set of responses has drawn from evidence already submitted in the EU consultation. This will tend to align the revisions; however, continued monitoring of drafts on both sides, checking for possible inconsistencies, would be a useful exercise. As it has a slightly advanced timeline, the EU consultation may also point out errors that could be avoided in the UK process or good ideas that could be discussed before the document is finalised. A mini-revision of the TTGL could be considered part-way through the usual 10-year revision cycle this first time to ensure that any unanticipated problems would be corrected speedily so that this market works as well as possible. The TTBER is likely phrased in such a way that the mini-review would not need to touch the regulation but could work through modified guidelines only.