CCCS GUIDELINES ON THE TREATMENT OF INTELLECTUAL PROPERTY RIGHTS

1 INTRODUCTION

1.1 These guidelines explain how the Competition and Consumer Commission of Singapore ("CCCS") expects the Competition Act (Chapter 50B) ("the Act") to operate in relation to agreements and conduct which concern intellectual property rights ("IPRs"). They set out how ~~the~~ CCCS views the interface between IPRs and competition law, and indicate~~s~~ non-exhaustively some of the factors and circumstances that ~~the~~ CCCS may consider when assessing agreements and conduct which concern IPRs.

~~For the~~*Intellectual Property Rights*

1.2 Intellectual property ("IP") commonly refers to the product of the human mind, and include~~s~~ inventions, trade marks, designs or brands. Examples are a logo, an artistic work (such as a painting), the design of a product, or a technical solution to a problem. For the purposes of these guidelines, the term "intellectual property rights" refers to all IPRs including those ~~the rights~~ granted under the Patents Act~~,~~ (Chapter 221)[1], Copyright Act~~,~~ (Chapter 63), Plant Varieties Protection Act~~,~~ (Chapter 232A), Layout-Designs of Integrated Circuits Act~~,~~ (Chapter 159A), Registered Designs Act (Chapter 266), Trade Marks Act (Chapter 332) and~~,~~ Geographical Indications Act 2014 (No.19 of 2014), ~~and~~ as well as trade secrets. The IPRs include:

- Patents: A patent is a legal monopoly right, generally for a period of 20 years, given to the owner of an invention to enable him to prevent others from using, copying or making the invention without his consent in the country in which he has obtained patent protection. A patentable invention may be a product or a process that gives a new technical solution to a problem. It may be a new method of doing things, the composition of a new product, or a technical improvement on how certain objects work;

- Copyrights: Copyright protects literary (e.g. novels), dramatic (e.g. plays), musical and artistic works (e.g. paintings). Other works like films, sound recordings and broadcasts are also protected. For a work to be protected by copyright, it has to be original and expressed in a tangible form such as in a recording or in writing; ideas alone are not protected. Originality simply means that there is a degree of independent effort in the creation of the work. Generally, the author of a copyright work has the right to reproduce, publish, perform, communicate and adapt his work. These different exclusive rights form the bundle of rights called copyright. The term of copyright protection varies depending on the subject matter of protection;

[1] Please note sections 50A, 51 and 52 of the Patents Act apply for certain types of contract and licence entered on or after 23rd February 1995 but before 1 December 2008. Further, please note section 55 of the Patents Act which relates to compulsory licences.

- Trade marks: A trade mark is a sign used by a person in the course of trade to distinguish his goods or services from others. A registered trade mark grants the owner a statutory monopoly of the trade mark in the country in which he has obtained protection. The protection granted to a trade mark registration is for an initial period of 10 years and it can last indefinitely if the registration is renewed every 10 years;

- Registered designs: A design refers to the features of shape, configuration, colours, pattern or ornament applied to any article or non-physical product that give that article or non-physical product its appearance. Generally, the owner of a registered design has the right to prevent others from using the design without permission, in the country for which the right has been granted. The term of registered design protection is for an initial period of 5 years, thereafter, the registration may be renewed every 5 years up to a maximum of 15 years.

The Competition Act

~~1.2~~1.3 The Act prohibits:

- Agreements between undertakings, decisions by associations of undertakings or concerted practices which have as their object or effect the prevention, restriction or distortion of competition within Singapore unless they fall within an exclusion in the Third Schedule to the Act ("the Third Schedule") or meet all of the requirements specified in a block exemption order ("the section 34 prohibition").

- Any conduct on the part of one or more undertakings, which is an abuse of a dominant position in any market in Singapore ~~("the section 47 prohibition")~~ unless they fall within an exclusion in the Third Schedule ("the section 47 prohibition").

- Mergers which substantially lessen competition in Singapore unless they fall within an exclusion in the Fourth Schedule to the Act ("the section 54 prohibition") or are exempted by the Minister.~~The section 34, and 47 prohibitions came into force on 1 January 2006, while the section 54 prohibition came into force on 1 July 2007.~~

~~1.3~~1.4 Details of how ~~the~~ CCCS expects to apply these prohibitions in general are contained in the *CCCS Guidelines on the Section 34 Prohibition* ~~2016~~, the *CCCS Guidelines on the Section 47 Prohibition* ~~2016~~, and the *CCCS Guidelines on the Substantive Assessment of Mergers*.

~~1.4 The CCCS will set its strategic priorities and consider each case on its merits to see if it warrants an investigation.~~

1.5 These guidelines are not a substitute for the Act, the regulations and orders. They may be revised should the need arise. The examples in these guidelines are for illustration. They are not exhaustive, and do not set a limit on the investigation and enforcement activities of ~~the~~ CCCS. In applying these guidelines, the facts and circumstances of each case will be considered. Persons in doubt about how they and their commercial activities may be affected by the Act may wish to seek legal advice.

1.6 A glossary of terms used in these guidelines is attached.

The Interface between IPRs & Competition Law

1.7 Both ~~intellectual property ("~~IP~~")~~ and competition laws share the same basic objective of promoting economic efficiency and innovation. IP law does this through the provision of incentives for innovation and its dissemination and commercialisation, by establishing enforceable property rights for the creators of new and improved products and processes. Competition law does this by helping to promote competitive markets, thereby spurring firms to be more efficient and innovative.

1.8 ~~2.2~~ IP has certain characteristics that may make it difficult for IP owners to restrict access to, and therefore, exercise their rights over it. For example, IP is costly to develop, but often easy and inexpensive to copy, thus making it difficult to prevent others from free-riding on the discovery in the absence of IP law. The use of IP is also typically non-rivalrous, meaning that one person's use does not reduce its use by another person. While these characteristics will be taken into account in competition analysis, they do not warrant the application of fundamentally different analytical principles to IPRs.

1.9 ~~2.3~~ For competition law purposes, ~~the~~ CCCS will regard IPRs as being essentially comparable to any other form of property. The right to exclude is the basis of private property rights. An IPR bestows on the IP owner certain rights to exclude others, and ~~the~~ CCCS recognises that these rights are necessary in order to allow IP owners to recover the costs of their investments and profit from the use of their property. However, as with other forms of private property, certain types of agreements or conduct with respect to IP may have anti-competitive effects which come under the purview of competition law.

1.10 ~~2.4~~ Although there are clear and important differences in the purpose, extent and duration of protection provided under the IP regimes mentioned in paragraph 1.2, the general analytical principles to be applied are the same. These guidelines address mainly issues relating to technology transfer and innovation. In evaluating the specific circumstances of each case, the differences between the various forms of IPRs will be taken into account.

1.11 ~~2.5~~ The possession of an IPR does not necessarily create market power in itself. While an IPR may confer a 'legal' monopoly over a product, process or work, it does not necessarily confer an 'economic' monopoly. While the IPR may confer the right to exclude with respect to the specific product, process or work in question, there may be sufficient actual or potential close substitutes that constrain the exercise of market power by the IP owner.

2 RELEVANT MARKETS

2.1 These guidelines address some aspects of market definition which may be relevant where ~~licensing~~ IP related arrangements are concerned. These guidelines should be read together with the *CCCS Guidelines on Market Definition*.

2.2 IP related ~~Licensing~~ arrangements can raise competition concerns if they are likely to adversely affect the price, quantity, quality or variety of products currently or potentially available. ~~The~~ CCCS will normally analyse the competitive effects of such arrangements within the relevant markets for the products affected by such arrangements ("product markets"). In some cases, however, the analysis may require the further assessment of competitive effects on the markets for technology ("technology markets") and/or markets for research and development ("innovation markets"). When defining a market for the purpose of its competition analysis, CCCS may consider the geographic and temporal dimensions for each market. CCCS will also take into account the context and circumstances associated with the IP arrangement including the existence of any applicable standard(s).

Product Markets

2.2.1 ~~An~~ IP can be integrated either into a product or production process. A number of different product markets may be relevant in evaluating the effects of an IP related ~~licensing~~ arrangement. For example, a~~A~~ licensing restraint may have competitive effects in markets for final or intermediate products made using the IP, or it may have effects upstream, in markets for products that are used as inputs, along with the IP, for the production of other products.

Technology Markets

2.2.2 A technology market consists of the IP that is licensed ("licensed technology") and its close substitutes, that is, the technologies to which licensees could switch in response to an increase in the IP licence fee or royalty. For example, a standardisation agreement may have competitive effects on, or limit the availability of substitutes to, the product or service market(s) to which the standard(s) relate. When the standard setting process involves the selection of a particular technology and where the rights to IP are marketed separately from the products to which they relate, the standard may also have effects on the relevant technology market.

Innovation Markets

2.2.3 An innovation market consists of the research and development ("R&D") directed at particular new or improved goods or processes, and the close substitutes for that R&D that significantly constrain the exercise of market power with respect to the relevant R&D. ~~The~~ CCCS may consider the effects of ~~licensing~~ IP related arrangements on innovation markets; for example, where the licensing arrangements reduce the innovation efforts of the undertakings in question, or restrict or prevent the innovation efforts of others.

2.2.4 In analysing how IP related arrangements may affect competition in innovation, CCCS will usually examine the impact of the arrangement on competition within existing and potential product and technology markets. Competition in such markets may be affected by arrangements that delay the introduction of improved products or new products that over time will replace existing products. In such cases, innovation is a source of potential competition which must be taken into account when assessing the impact of the arrangement on product markets and technology markets. However, in a limited number of cases, it may be useful and necessary to also analyse the effects of an arrangement on competition in innovation separately, i.e. to assess its impact on an innovation market. This is particularly the case where the arrangement affects innovation aimed at creating new products and where it is possible at an early stage to identify R&D poles. In such cases it can be analysed whether after the arrangement, there will be a sufficient number of competing R&D poles left for effective competition in innovation to be maintained.[2]

Geographic Markets

2.2.5 The geographic dimension comprises the area in which substitution takes place. This entails looking at demand and supply side substitutability i.e. the willingness of buyers to switch to sellers in neighbouring markets, or the potential for undertakings in neighbouring markets to supply to buyers, in response to a price increase. The geographic market of the relevant technology market(s) can differ from the geographic market of the relevant product market(s).[3]

Temporal Markets

2.2.6 Another dimension that may be relevant, particularly for technology markets, is time. Technology markets may be characterised by fast-paced innovation, such that competition conditions are dynamic over time. The relevant market defined at one point in time may differ from the relevant market for the same or similar product(s) depending on the timeframe over which substitution

[2] Competing R&D poles are R&D efforts directed towards a certain new product or technology, and the substitutes for that R&D, that is to say, R&D aimed at developing substitutable products or technology for those developed by the agreement and having similar timing.

[3] See also *CCCS Guidelines on Market Definition*, paragraphs 4.1 to 4.10.

possibilities should be assessed. Changes in competition conditions over time will be taken into account by CCCS in its market definition exercise.[4] This is especially so in markets characterised by innovation, which could make substitution between products easier or harder.

3 IPRs & THE SECTION 34 PROHIBITION

3.1 An agreement will fall within the scope of the section 34 prohibition if it has as its object or effect the appreciable prevention, restriction or distortion of competition within Singapore. An agreement will not be prohibited if it falls within an exclusion in the Third Schedule or meets all of the requirements specified in a block exemption order. This section sets out the general framework that CCCS will apply when assessing ~~licensing~~ agreements involving the licensing of IPRs such as technology licensing agreements and franchise agreements (collectively referred to, for ease of reference, as “licensing agreements”) within the context of the section 34 prohibition. These guidelines should be read together with the *CCCS Guidelines on the Section 34 Prohibition* and the *CCCS Guidelines on Market Definition*. As some agreements, such as those involving discounts, price discrimination and/or vertical restraints, may raise issues which fall within the scope of the section 47 prohibition, reference should also be made to the *CCCS Guidelines on the Section 47 Prohibition* where appropriate.

Pro-competitive Benefits of Licensing

3.2 In the vast majority of cases, licensing is pro-competitive. IP is typically one of a few components in a production process and derives value from its combination with complementary factors such as manufacturing and distribution facilities. Licensing can facilitate the integration of the IP with other complementary factors of production, thus leading to more efficient exploitation of the IP.

3.3 ~~2.12~~ Licensing also promotes the dissemination of technologies; this in turn leads to a reduction of the production costs of the licensee or the introduction of new or improved products. Licensing may also promote innovation by helping IP owners reap the full commercial potential of their inventions.

3.4 Efficiencies may result from agreements where IP owners assemble a technology package for licensing to contributors of the pool and to third parties; such pooling arrangements may reduce transaction costs. In sectors where large numbers of IPRs exist and where products require a combination of IPRs, such licensing agreements may often be pro-competitive.

General Framework for Assessing Licensing Agreements

3.5 ***Step 1:*** ~~The~~ CCCS will first distinguish if the agreement is made between competing or non-competing undertakings. In general, agreements between non-

[4] See also *CCCS Guidelines on Market Definition*, paragraphs 5.1 to 5.2, and paragraphs 5.8 to 5.9.

competitors pose significantly smaller risks to competition than agreements between competitors. In order to determine the competitive relationship between the undertakings, it is necessary to examine whether the undertakings would have been actual or potential competitors in the absence of the agreement. ~~The~~ CCCS will review the competitive relationship between the undertakings at the time the agreement is made.

Step 2: ~~The~~ CCCS will then consider if the agreement and the licensing restraints restrict actual or potential competition that would have existed in their absence. ~~The~~ CCCS will consider the impact on both inter-technology competition (i.e. competition between undertakings using different technologies) and intra-technology competition (i.e. competition between undertakings using the same technology).

Step 3: ~~The~~ CCCS will consider if an agreement that falls within the scope of the section 34 prohibition may, on balance, have a net economic benefit.[5] An agreement may have a net economic benefit, where it contributes to improving production or distribution or promoting technical or economic progress and it does not impose on the undertakings concerned the possibility of eliminating competition in respect of a substantial part of the goods or services in question. Such an agreement will be excluded by virtue of section 35 of the Act, no prior decision by ~~the~~ CCCS to that effect being required.

Licensing Agreements between Competitors

3.6 Licensing agreements between competitors are agreements made between parties that, in the absence of the agreement, would have been actual or potential competitors on a relevant market.

3.7 ~~3.4~~ Restraints in licensing agreements between competitors may harm competition if they facilitate, or amount to price-fixing, market-sharing or output limitation. Such restraints may also harm competition if they adversely affect the licensee's ability or incentive to carry out independent R&D. This may occur, for example, where undertakings transfer competing technologies to each other and impose a reciprocal obligation to provide each other exclusively with future improvements of their respective technologies.

3.8 Parties may be considered as actual competitors on the technology market if they are either already licensing substitutable technology rights, or one of them is already licensing its technology rights and the other enters the technology market by granting a licence for competing technology rights.

[5] Annex C of the *CCCS Guidelines on the Section 34 Prohibition* sets out how ~~the~~ CCCS will determine if an agreement meets the criteria for the exclusion of individual agreements under the Third Schedule.

3.9 Parties may be potential competitors if they own substitutable technologies and the licensee is not licensing its own technology, provided that it would be likely to do so in the event of a small but permanent increase in prices of the licensed technology or IP rights. In assessing the likelihood of potential substitutability of a technology, the stage of standardisation may be a material factor for consideration. In particular, while a standard is being developed, alternative technologies can still compete for inclusion in a standard. Therefore, such alternative technologies are considered to be substitutable. However, once a technology has been chosen and the standard has been set, competing technologies and companies may face a barrier to entry and may potentially be excluded from the market. In other words, these competing technologies may no longer be deemed as viable substitutes once the standard is established.

Licensing Agreements between Non-Competitors

3.10 Licensing agreements between non-competitors are agreements made between parties that, in the absence of the agreement, would not have been actual or potential competitors on a relevant market. The relationship between the undertakings will be defined as the status that existed at the time the agreement was made. ~~The~~ CCCS will not consider that the status of this relationship has changed as a result of the competition that may develop following the licensing agreement, unless the agreement is subsequently amended materially.

~~3.8~~3.11 Licensing agreements made between undertakings on the same level, e.g. two manufacturers, are considered agreements made between non-competitors so long as they are not actual or potential competitors in a relevant market. One example of this would be where one of the undertakings is a standard essential patent ("SEP") holder. Further discussion on SEPs is set out at paragraphs 4.9 to 4.11 below.

3.12 ~~3.7~~ Most licensing agreements between non-competitors are made between parties in a complementary relationship, and generally do not pose competition concerns. In general, such agreements are more likely to have an adverse impact on competition in the relevant product market where at least one party to the agreement enjoys ~~high~~ a significant degree of market power. An adverse impact on competition may arise, for example, if the licensing agreement forecloses access to, or increases competitors' costs of obtaining important inputs. This would occur if, for example, the licensor makes the licensing of one technology conditional upon the licensee also procuring another licence or product from the licensor.

~~3.9~~3.13 Agreements between non-competitors may contain certain licensing restraints that could adversely impact competition in the technology market. Foreclosure effects may stem from licensing restraints that prevent licensees from obtaining licences~~sing~~ to competing technologies or create disincentives for them to do so, where the licensor enjoys a significant ~~high~~ degree of market power. For instance, competing providers of technology may be foreclosed where incumbent licensors impose licensing restraints on licensees (e.g. product manufacturers) to

such an extent that an insufficient number of product manufacturers is available to be licensed by competing providers of technology and where high barriers to entry limit the number of new product manufacturers. Sellers of substitutable technologies may be foreclosed where licensors ~~with~~which collectively have a ~~sufficient~~significant degree of market power pool together various parts of a technology and license them together as a package when only part of the package is essential to produce a certain product. More information in this regard can be found in the section on “Technology Pools” at paragraphs 3.34 to 3.36 below. Such agreements may also give rise to competition concerns under the section 47 prohibition, where one (or more) of the undertakings involved hold(s) a dominant position.

~~3.10~~3.14 ~~3.9~~ Agreements between non-competitors may also have an adverse impact on competition between competing licensees if they facilitate coordination to increase prices or to reduce output in a relevant market. For example, if owners of competing technologies impose similar restraints on their licensees, the licensors may find it easier to coordinate their prices. Similarly, licensees that are competitors may find it easier to coordinate their pricing if they are subject to common restraints in licences with a common licensor or competing licensors. The risk of anti-competitive coordination is increased when the relevant markets are concentrated and difficult to enter. The use of similar restraints may, however, be common and pro-competitive in an industry, because they contribute to the efficient exploitation of the IP. The facts and circumstances of each case will need to be considered.

The Exclusion of Vertical Agreements under Paragraph 8 of the Third Schedule

~~3.11~~3.15 The section 34 prohibition does not apply to vertical agreements, other than such vertical agreements as the Minister for Trade and Industry may by order specify. This exclusion is provided for under paragraph 8 of the Third Schedule. Vertical agreements are agreements entered into between 2 or more undertakings each of which operates, for the purposes of the agreement, at a different level of the production or distribution chain, and relating to the conditions under which the parties may purchase, sell or resell certain products. This includes IPR provisions contained in such agreements, provided that they do not constitute the primary object of such agreements, and are directly related to the use, sale or resale of products.

~~3.12~~3.16 ~~3.11~~ The exclusion covers agreements which concern the purchase or redistribution of products, such as a franchise agreement where the franchisor sells to the franchisee products for resale. This includes IPR provisions contained in the franchise agreement, such as the trade mark and know-how which the franchisor licenses the franchisee in order to market the products.

~~3.13~~3.17 ~~3.12~~ Agreements with IPR provisions, which do not fall under the exclusion under paragraph 8 of the Third Schedule, such as agreements which have as their primary object the assignment or the licensing of IPRs for the

manufacture of products, will be assessed in accordance with the framework set out in paragraph 3.5.

The Appreciable Adverse Effect on Competition Test

~~3.14~~3.18 In assessing the effect or potential effect on competition, it is necessary to consider the degree of market power enjoyed by the parties to the agreement. The likelihood that the pro-competitive effects will outweigh any anti-competitive effects due to restrictions contained in the licensing agreement depends, to a large extent, on the degree of market power of the undertakings concerned. In general, there is less potential for harm to competition where there is a lower concentration of market power in the relevant markets, and where a lower proportion of licensees in those markets are subject to similar restraints.

3.19 ~~3.14~~ A licensing agreement will generally have no appreciable adverse effect on competition:

- if the aggregate market share of the parties to the agreement does not exceed 20% on any of the relevant markets affected by the agreement, where the agreement is made between competitors (i.e. undertakings which are actual or potential competitors on any of the markets concerned);

- if the market share of each of the parties to the agreement does not exceed 25% on any of the relevant markets affected by the agreement, where the agreement is made between ~~competitors;~~

- ~~if the market share of each of the parties to the agreement does not exceed 35% on any of the relevant markets affected by the agreement, where the agreement is made between~~ non-competitors.

Where it may be difficult to classify an agreement as an agreement between competitors or an agreement between non-competitors, the ~~25~~20% threshold will be applicable.

~~3.15~~3.20 ~~3.15~~ As with other types of agreements, a licensing agreement between competitors which involves price-fixing, market-sharing, ~~or~~ output limitations or the restriction of a licensee's ability to exploit its own technology rights, will always have an appreciable adverse effect on competition, notwithstanding that the market shares of the parties are below the threshold levels mentioned in paragraph 3.19.

~~3.16~~3.21 ~~3.16~~ The fact that the market shares of the parties to a licensing agreement exceed the threshold levels mentioned in paragraph 3.19 does not necessarily mean that the effect of that agreement on competition is appreciable.

~~3.17~~3.22 ~~3.17~~ Whether a licensing agreement falls within the threshold levels set out in paragraph 3.19 will be determined by reference to the product market only, unless the analysis of the product market alone would inadequately address the effects of the licensing agreement on competition among technologies or in R&D.

~~3.18~~3.23 ~~3.18~~ If an examination of the effects on technology markets is required, it is generally the case that in the absence of restrictions highlighted at paragraph 3.20 above~~involving price-fixing, market-sharing or output limitations~~, there is unlikely to be an appreciable adverse effect on competition where there are ~~four or more~~a sufficient number of independently controlled technologies in addition to the technologies controlled by the parties to the agreement, that may be substitutable at comparable cost, for the licensed technology in question.

3.24 ~~3.19~~ If an examination of the effects on innovation markets is required, it is generally the case that in the absence of restrictions highlighted at paragraph 3.20 above~~involving price-fixing, market-sharing or output limitations~~, there is unlikely to be an appreciable adverse effect on competition where there are ~~four or more~~a sufficient number of independently controlled entities in addition to the parties to the agreement, that possess the required specialised assets or characteristics and the incentive to engage in R&D that is a close substitute of the R&D activities of the parties to the agreement.

~~3.19~~3.25 Where an examination of the effects on innovation markets is required, ~~the~~ CCCS may have regard, in particular, to the specific licensing restraints set out in paragraphs ~~3.22 and 3.23.~~3.27 to 3.30; and whether there are SEPs involved[6].

Considerations in the Application of the Section 34 Prohibition to Various Types of Licensing Restraints or Arrangements

~~3.20~~3.26 ~~3.21~~ This section sets out some of the considerations in the application of the section 34 prohibition to particular licensing restraints or licensing arrangements. The facts and circumstances of each case will need to be considered in assessing whether such agreements fall within the scope of the section 34 prohibition.

Autonomy of Licensees to Engage in Independent R&D

~~3.21~~3.27 Licensing agreements which, directly or indirectly, restrict the ability or incentive of any of the parties, to carry out independent R&D, including independent R&D with third parties, may have anti-competitive effects. This is because such agreements can reduce potential competition on the technology and innovation markets, which would have existed in the absence of the agreement. However, in determining whether such agreements are likely to

[6] A further discussion on SEPs is set out at paragraphs 4.9 to 4.11 below.

infringe the section 34 prohibition, other factors may be taken into account, including whether the restriction is indispensable to prevent the disclosure of licensed know-how to third parties.[7] In order to be covered by the exception, the restrictions imposed to protect the licensor's know-how against disclosure must be necessary and proportionate to ensure such protection. For instance, where the agreement designates particular employees of the licensee to be trained in and responsible for the use of the licensed know-how, it may be sufficient to oblige the licensee not to allow those employees to be involved in R&D with third parties. Other safeguards may be equally appropriate.

Grantbacks

3.28 A grantback is an arrangement under which a licensee assigns to the licensor, or agrees to extend to the licensor, the rights over the licensee's improvements to the licensed technology. Grantback provisions can increase a licensor's incentives to license, and promote the dissemination of licensees' improvements to the licensed technology. There are often pro-competitive reasons for including grantback provisions, and these generally do not pose competition concerns, especially where they are non-exclusive in nature. They may, however, have an adverse impact on competition, where they substantially reduce the incentives of the licensee to engage in R&D and thereby reduce innovation.

3.29 An obligation to grant the licensor an exclusive licence to improvements of the licensed technology or to assign such improvements to the licensor is likely to reduce the licensee's incentive to innovate since it hinders the licensee in exploiting the improvements, including by way of licensing to third parties. An exclusive grantback is defined as a grantback which restricts the licensee (which is the innovator and licensor of the improvement in this case) from exploiting the improvement (for its own production and/or for licensing to third parties)[8]. This is the case both where the improvement concerns the same application as the licensed technology and where the licensee develops new applications of the licensed technology.

3.30 Non-exclusive grantbacks are not likely to be objectionable. However, it may have negative effects on innovation if there is cross-licensing between competitors where a grantback obligation on both parties is combined with an obligation on both parties to share improvements of its technology with the other party. The sharing of all improvements between competitors may prevent each competitor

[7] Know-how is a package of practical information which is a result from experience and testing. It is typically secret, substantial and identified. "Substantial" means that the know-how includes information which is significant and useful for the production of the products covered by the licensing agreement or the application of the process covered by the licensing agreement, i.e. the information must significantly contribute to or facilitate the production of the contract products. "Identified" means it is possible to verify that the licensed know-how fulfils the criteria of secrecy and substantiality, such as where the licensed know-how is described in manuals or written form, or possessed by licensor's employees.

[8] A grantback is exclusive even if the licensee is permitted to use the improvements that is to be licensed/assigned to the licensor under the grantback.

from gaining a competitive lead over the other.[9] However, the parties are unlikely to be prevented from gaining a competitive lead over each other where the purpose of the licence is to permit them to develop their respective technologies and where the licence does not lead them to use the same technological base in the design of their products. This is the case where the purpose of the licence is to create design freedom rather than to improve the technological base of the licensee.

Example:

Firm A holds a patent to technology used in a construction process, and licenses the technology to Firm B, on condition that Firm B "grants back" exclusive rights to all improvement patents on Firm A's technology back to Firm A.

Analysis:

CCCS will consider the effects of this exclusive grantback agreement to determine if it infringes the section 34 prohibition. Factors that will be considered include the availability of competitive alternatives, the duration of the arrangement, and whether any innovation was or could have been suppressed by the agreement. Other factors may include whether consideration was given for the grantback and the level of consideration given, whether the licensor was in a strong or weak market position, and whether there is a network of agreements that contain such grantback provisions.

CCCS will also consider whether the net economic benefit exclusion applies on the facts.

Territorial and Field-of-Use Restrictions

3.31 Generally, an agreement between undertakings which prevents, restricts or distorts competition within a particular territory (or field-of-use) would fall within the scope of the section 34 prohibition. For example, an agreement which prevents the lawful parallel importation of a product into a territory where an IP owner (or its licensee) is active, may give rise to competition concerns.

3.223.32 However, wWhile licensing restraints such as territorial or field-of-use limitations, appear restrictive of competition, they may in fact serve pro-competitive ends by promoting licensing, and thus the dissemination and more efficient exploitation of the technology. For example, by protecting the IP owner from competition (in its own technology) in its core areas, they may increase the

[9] In cases where the parties have a significant degree of market power the agreement is likely to be caught by the section 34 prohibition, where the agreement prevents the parties from gaining a competitive lead over each other. For an additional discussion about cross-licensing in settlement agreements, please refer to paragraphs 3.40 to 3.41.

IP owner's incentive to license its IP to parties for exploitation in other areas. Licensing agreements containing such restraints do not normally fall within the scope of the section 34 prohibition because such restraints may not be viewed as restrictions of competition as such, but simply a sub-division of the licensor's original right granted by IP law. These licensing restraints are generally no more restrictive of competition than if the original IP owner had exercised the rights itself.

Licensing Agreements Involving Exclusivity

~~3.23~~3.33 The grant of an exclusive licence, for example, where a licensor is obliged not to license another licensee in the same territory, may be necessary to give the licensee an incentive to invest in the licensed technology or to further develop the technology. Licensing restraints such as non-compete clauses[10], may also promote licensing by reducing the risk of misappropriation of the licensed technology, and may also help ensure that the licensees have an incentive to invest in and exploit the licensed technology. Non-compete clauses ~~generally do not pose~~may however give rise to competition concerns~~, unless~~ in cases where they provide a basis for market-sharing in licensing agreements between competitors; or there are (likely) foreclosure effects as a result of ~~high~~ a significant degree of market power on the part of the licensor.

*Technology Pools **(Patent Pools)***

~~3.24~~3.34 Technology pools are arrangements whereby two or more parties assemble a package of technology which is licensed not only to contributors to the pool but also to third parties. These may have pro-competitive benefits, in clearing blocking patents, integrating complementary technologies and reducing transaction costs. Where a pool is composed only of technologies that are essential and complementary, it is generally pro-competitive regardless of the market position of the parties involved. However, technology pools may have anti-competitive effects in certain circumstances. For example, where pools are composed solely or predominantly of substitute technologies, this leads to little efficiency gains and may amount to price-fixing. In addition to reducing competition between parties, there is also the risk of foreclosing alternative technologies that are outside the pool. Other potential competition concerns are that pool members may discriminate against non-member licensees (which could result in a distortion of competition), restrict the independent licensing of the patents, or use the pool to share confidential business information so as to reduce competition in a downstream market.

3.35 To evaluate whether a technology pool would likely cause a competition issue, CCCS would seek to determine whether each patent placed inside the pool is essential for developing the product or service that is the basis behind the formation of the pool, and whether the patents are substitutes or complements. If each patent inside the pool is required to implement an international standard

[10] Non-compete clauses oblige the licensee not to deal with competing technologies.

required for developing the product or service, then the members of the pool cannot be viewed as horizontal competitors; a firm looking to buy technologies to develop the product or service conforming to the standard would need permission to use each patented technology in the pool. A pool comprising only non-competing patents (e.g. complementary patents) is not likely to have the potential to harm competition among suppliers of technology either inside or outside the pool.

3.36 CCCS would also consider whether the technologies inside the pool were being used to distort competition in a downstream market. In doing so, CCCS would consider whether licences are issued on a non-discriminatory basis to all interested parties; and whether pool members remain free to license their patents independently to interested parties outside the pool.

Example:

Firm A and Firm B are competitors in the market for equipment and technology used for a certain type of surgery. Firm A and Firm B hold patents for their respective equipment and technology, which are substitutable for the other firm's equipment and technology. Instead of competing with each other, Firm A and Firm B place their competing patents in a patent pool, in order to share the proceeds each time either firm's equipment or technology is used.

Analysis:

The use of a patent pool between Firm A and Firm B to eliminate competition between them may constitute an output restriction agreement that infringes the section 34 prohibition.

Non-challenge Clauses

3.37 Non-challenge clauses refer to the direct or indirect obligation not to challenge the validity of the licensor's IPR. As licensees are typically in the best position to determine whether or not an IPR is valid, there is public interest in eliminating invalid IPRs. Further, clauses that stipulate a licensor's right to terminate a licensing agreement if the licensee were to challenge the validity of any IPR of licensor may, in effect, function similarly to a non-challenge clause in the sense that the licensee may incur significant losses if it were forced to switch to an alternative technology. In such a case, the licensee may be deterred from challenging the validity of the IPR of a licensor if it faces the risk of termination.

3.38 CCCS will consider such clauses on a case by case basis. Some factors that may be considered are whether the clause operates in an exclusive licensing agreement and the market positions of the licensor and licensee. CCCS may also weigh the competing public interests of strengthening the incentive of the licensor

to license by not being forced to continue with a licensee that challenges the very subject matter of the licenseing agreement, against the interest of eliminating any obstacle to economic activity which may arise where an IPR was granted in error. CCCS will also consider whether the non-challenge relates solely to technological know-how. In particular, as the recovery of licensed know-how is likely to be impossible or difficult once it is disclosed, there may be pro-competitive benefits for allowing such clauses, particularly where it leads to the licensor disseminating new technology to the licensee.

IP Settlement Agreements

3.39 IP settlement agreements refer to commercial agreements between undertakings to settle actual or potential IP-related disputes. Undertakings may prefer to discontinue the dispute or litigation because it proves too costly, time-consuming and/or uncertain as regards its outcome. There may also be welfare enhancing benefits from the adoption of IP settlement agreements, as the time and resources of the Court and/or any competent administrative bodies are saved.

3.40 However, depending on the terms and conditions of the IP settlement agreements, such agreements may infringe the section 34 prohibition. For example, "pay-for-delay" type settlement agreements, which are based on a value transfer[11] from one undertaking in return for a limitation on the entry and/or expansion into the market of another undertaking, may have as its object or effect the prevention, restriction or distortion of competition in Singapore. If the parties to a "pay-for-delay" type settlement agreement are actual or potential competitors, and there was a significant value transfer in exchange for a limitation on the entry and/or expansion, then such a settlement agreement may be considered by CCCS to be a market allocation, market sharing or market exclusion agreement. One of the factors which CCCS may take into consideration in its assessment of whether an IP settlement agreement falls within the category of a "pay-for-delay" type agreement is whether it was the value transfer which induced the limitation of the entry and/or expansion, or whether the value transfer is a true recognition by the parties as to the settlement of the IP-related dispute.

3.41 Further, IP settlement agreements in which parties cross-license each other and impose restrictions on the use of their IPRs, may also raise competition concerns. Where the parties to the "cross-licensing" type settlement agreement have a significant degree of market power, and where the settlement agreement imposes restrictions that clearly go beyond the resolution of the dispute, then such a settlement agreement may raise competition concerns. Where the parties have utilised such a "cross-licensing" type settlement agreement to share markets or fix reciprocal running royalties which have a significant impact on market prices, such a settlement agreement is likely to infringe the section 34 prohibition.

[11] A value transfer in a settlement agreement may comprise monetary payment and/or a licensing agreement under which the licensee develops a relevant product under specific conditions agreed to by the licensor.

3.42 Where the parties to a settlement agreement are entitled, under the terms of the agreement, to use each other's technology and the agreement extends to future developments, CCCS may assess the impact of the agreement on the parties' incentive to innovate. In cases where the parties have a significant degree of market power, and where the agreement prevents the parties from gaining a competitive lead over each other, the agreement is likely to be caught by the section 34 prohibition. Agreements that eliminate or substantially reduce the possibilities of one party to gain a competitive lead over the other reduce the incentive to innovate and thus adversely affect an essential part of the competitive process. Such agreements are also unlikely to satisfy the Third Schedule of the Competition Act as an agreement with a net economic benefit.

4 IPRs & THE SECTION 47 PROHIBITION

4.1 The section 47 prohibition prohibits any conduct on the part of one or more undertakings, which is an abuse of a dominant position in any market in Singapore. This section sets out some of the considerations that ~~the~~ CCCS will have, with regard to assessing conduct involving IPRs, within the context of the section 47 prohibition. These guidelines should be read together with the *CCCS Guidelines on the Section 47 Prohibition* and the *CCCS Guidelines on Market Definition*.

Dominant Position

~~4.1~~4.2 ~~4.2~~ Ownership of an IPR will not necessarily create a dominant position. Whether or not an IP owner enjoys dominance in the relevant market will depend on the extent to which there are substitutes for the technology, product, process or work to which the IPR relates.

4.3 ~~4.3~~ Although the existence of an IPR may impede entry into the market in the short term, any other undertaking may in the long term be able to enter the market with its own innovation. In markets where undertakings regularly improve the quality of their products, a persistently high market share may indicate no more than persistently successful innovation. ~~The~~ CCCS will make its assessment of dominance, based on the particular facts of each case.

Abuse

4.4 The legitimate exercise of an IPR by a dominant undertaking *per se* will not usually be an abuse when limited to the ~~market for the~~ specific product which ~~incorporates it.~~is protected by the IPR. However, competition concerns may arise where the dominant undertaking attempts to ~~extend~~exercise its market power ~~.~~, beyond the scope of legal monopoly granted by IP law, in the relevant market which includes the IPR-protected product or into a neighbouring or related market~~,~~ ~~beyond the scope granted by IP law~~. In defining markets, care will have to be taken in choosing the initial focal product and in identifying if secondary products

formed a separate but related market, or part of the same market as the primary product.[12]

~~4.2~~4.5 Conduct that constitutes an abuse of a dominant position in a market includes conduct that protects, enhances or perpetuates the dominant position of an undertaking in ways unrelated to competitive merit. Conduct may be abusive to the extent that it harms competition, for example, by removing an efficient competitor, limiting competition from existing competitors, or excluding new competitors from entering the market. The likely effect of each particular kind of behaviour will be assessed on the particular facts of each case. The paragraphs below set out some considerations that ~~the~~ CCCS may have, with regard to assessing certain types of conduct involving IPRs, when carried out by dominant undertakings.

Refusal~~s~~ to Supply a Licence

~~4.3~~4.6 The basis of property rights is the right to exclude. Ownership of an IPR does not normally impose on the IP owner an obligation to license the use of that IP to others, even where the IPR confers market power on the IP owner. Therefore, a refusal to supply a licence, even by a dominant undertaking, is not normally an abuse. However, in limited circumstances, a dominant undertaking's refusal to supply a licence may constitute an infringement under the section 47 prohibition. For example, this may occur if the refusal concerns an IPR which relates to an essential facility, with the effect of (likely) substantial harm to competition. ~~The~~ CCCS may consider if the dominant undertaking is able to objectively justify its conduct, whether the dominant undertaking (or its affiliates) operates in an upstream or downstream market and whether the dominant undertaking has behaved in a proportionate way in defending its legitimate commercial interest.

~~4.4~~4.7 A facility ~~will~~may be viewed as essential ~~only~~ if there are no potential substitutes (through duplication or otherwise), and if the facility is indispensable to the exercise of the activity in question. ~~Essential facilities are rare in practice;~~ IPRs by themselves are generally unlikely to create essential facilities.[13]

~~4.5~~4.8 ~~4.8~~ In determining whether a refusal to supply a licence constitutes an abuse under the section 47 prohibition, the impact on the technology and innovation markets will be considered. Care must be taken not to undermine the incentives for undertakings to make future investments and innovations.

Example:

Firm A was the first firm to market spreadsheet software for personal computers ("Software A"). Software A established personal computers as an essential tool for

[12] Please refer to Part 6 of the *CCCS Guidelines on Market Definition* for more details on market definition for after markets.
[13] *CCCS Guidelines on the Section 47 Prohibition.*

businesses, and Firm A outsold its closest competitors significantly. After a few years, Firm B introduced new software ("Software B") that contained a number of features not found in Software A. However, Firm B soon ran into financial difficulties and requested a licence to copy the words and layout of Software A's menu command hierarchy, which Firm A had a copyright in. This would have allowed Software B to read Software A files and ensured compatibility between both products. Firm A refused to grant a licence to Firm B and announced that it would enforce its IP rights against Firm B if it copied the Software A's hierarchy. As a consequence, several other prominent software makers announced the discontinuation of their spreadsheet development programs.

Analysis:

To establish whether Firm A's refusal to supply a licence constitutes an abuse under the section 47 prohibition, CCCS would first determine whether the refusal adversely affected competition in a relevant market that was different or significantly larger than the subject matter of Firm A's IPRs or the products or services that result directly from the exercise of such IPRs.

In determining the relevant market (e.g. whether it is the market for Software A-compatible spreadsheets), CCCS would consider factors such as the extent and importance of network effects and switching costs. CCCS would then determine whether Firm A is dominant in this market taking into account factors such as Firm A's market share and barriers to entry (including the pace of innovation and the potential for a new technology to "leap-frog over" Software A).

Assuming that Firm A is dominant, CCCS would determine whether access to Software A's menu command hierarchy is essential for competitors to participate in the relevant market and the extent to which Firm A's refusal to license its IP would adversely alter other firms' incentives to invest in R&D in respect of goods that require the IP as an input. If Software A's menu command hierarchy is an essential input, a refusal by Firm A to license this product to other firms could potentially constitute an abuse of its dominant position (unless there are objective justifications for this refusal, such as poor creditworthiness of the developers of competing software).

SEPs and Licensing on Fair, Reasonable and Non-Discriminatory ("FRAND") Terms

4.9 The relationship between patents and standards is fundamental to innovation and economic growth. While standards ensure that interoperable and safe technologies are widely disseminated among companies and end-consumers; patents incentivise technology-contributing companies to participate in future standard setting efforts, and enable innovative companies to receive an adequate return on investments. At the nexus of patents and standards lies a special category of patents, known as SEP, which effectively protects technology essential to a standard. In other words, suppliers who wish to manufacture

products, which are in compliance with certain standards, will have to obtain the necessary licences to use the technologies covered by one or more SEPs.

4.10 Standard setting is often done through the auspices of independent Standard Setting Organisations ("SSOs"), which consist of active players in the market. By the very definition of a standard setting process, it implies a single technological solution per module. In other words, the standard setting process will eliminate all other alternative technologies and may confer a degree of market power to the SEP holder whose technology is included in the standard. Furthermore, the standard setting process at its core involves bringing market players, sometimes competitors, together and providing a conduit where such market players coordinate their actions. Such features, which are common in the standard setting process, may provide the very conditions with which competition law is concerned.

4.11 Prior to the establishment of a standard, patent holders will have to provide a voluntary commitment to SSOs, undertaking to license their technologies on FRAND terms should their technologies be codified within a standard. The refusal by an SEP holder to license its technology on FRAND terms may give rise to competition concerns under section 47 of the Act.

Tying

~~4.6~~4.12 An undertaking may be found to be abusing its dominant position where it attempts to leverage on its substantial market power in one market, to harm competition in another market, through practices such as tying. For example, an undertaking who is dominant in the market might impose a condition that he will grant a licence to his IPR only if the potential licensee agrees to buy an additional product or set of products, which is not covered by the IPR. However, the conduct of the dominant undertaking may be an objectively justified and proportionate response, if it can show that such provisions are necessary for a satisfactory exploitation of the IPR, such as for ensuring that the licensee conforms to quality standards or for technical interoperability.

Example:

Firm A is dominant in the market for personal computer operating systems through its ownership of Operating System A ("OS A"). Firm A mandated that licences for OS A would only be sold to personal computer users together with a licence for its music player software, Player A, and not as a standalone licence.

Analysis:

Firm A's conduct in trying to leverage on its dominant market position in the market for operating systems to gain market share in the market for music player software by tying the sale of licences for OS A to the sale of Player A is likely to raise

competition issues under section 47. Firm A's conduct would have the effect of foreclosing Firm A's competitors in the market for music player software, as customers who already have Player A installed in their personal computers would be less likely to purchase an alternative music player software. Further, the tying of Player A to OS A is likely to create a disincentive for computer manufacturers to include other media player software in their computers. If CCCS finds that fewer customers use other music players because Player A is pre-installed, and there is no objective justification for the tying of licences for OS A and Player A, Firm A's conduct is likely to infringe the section 47 prohibition.

Refusal of access to data

4.13 Facts and data *per se* are not protected under copyright law. However, a compilation of facts and data may be protected if it constitutes an intellectual creation by reason of the selection or arrangement of its contents.[14]

4.14 This distinction reflects copyright law's goal of balancing private rights with public needs and interests: while copyright may protect, for a limited period, the copyright holder's efforts in compiling facts and data, the facts and data *per se* must remain free for others to work on so that the public can benefit from further additions to the pool of results. Otherwise, the first compiler could gain a monopoly over the data in the compilation, particularly when the data can only be found in the compiler's work. In such cases, a single compiler would have the power to control the growth of the pool of works for the consumption and benefit of the public.

~~4.7~~4.15 Notwithstanding the "thin" copyright protection afforded over data and facts, there is potential scope for competition intervention where a dominant company disallows its competitors access to data which is a key competitive input in the relevant market. Whether the data is a key competitive input may include a consideration of factors such as the availability of substitute data, the ability of competitors to replicate the data under reasonable conditions, as well as the degree of necessity of the data for competitors to compete effectively. Further, in order to assess whether competition intervention is appropriate, CCCS will also take into consideration evidence of likely or actual harm to competition, and whether the refusal of access to data can be objectively justified (e.g. on the basis of poor track record of privacy of that competitor, or security concerns over a particular data set).

Example:

Firm A has about 70% market share in market X. Firm A will only purchase the services of an affiliated company, Firm B, which operates in market Y. In doing so,

[14] As per sections 4, 7A and 27 of the Copyrights Act (Chapter 63). See also paragraph 15 of *Global Yellow Pages Ltd v Promedia Directories Pte Ltd and another matter* [2017] 2 SLR 185; [2017] SGCA 28.

Firm A will only provide relevant customer data to Firm B, but not disclose such data to competitors of Firm B. The collection of a larger customer data set has resulted in direct improvements to the quality of Firm B's services.

A new entrant to market Y, Firm C, has complained to CCCS about its inability to persuade other firms from market X to use its service. Firm C has also complained about its ability to collect relevant customer data from Firm A.

Analysis:

In the event that CCCS is satisfied that Firm C is unable to obtain the relevant customer data from other alternative sources, and that such customer data is necessary for the provision of services in market Y, CCCS may find that Firm A's conduct raises competition concerns. In particular, Firm A may be leveraging its dominant position in market X to confer an advantage to Firm B, and foreclosing Firm B's competitors in market Y. The refusal of Firm A to supply customer data to Firm C could lead to a self-perpetuating cycle by which Firm C is unable to develop a credible service to offer to other firms in market X. This then means that Firm C is unable to collect even more customer data to improve the quality of its services. CCCS may then proceed to assess whether there is an objective justification by Firm A for such conduct.

Post Expiration Licensing Conditions/Royalty Charges

4.16 While patent owners are entitled to impose licensing conditions and charge royalties to licensees who wish to use their patents during the patent protection period under IP law, the imposition of conditions and/or structuring of royalty payments over a period that commences during the patent protection period and continues even after the patent has expired may infringe the section 47 prohibition if it indicates that the patent owner is trying to exclude competitors and extend his monopoly beyond the patent period.

45 GLOSSARY

Agreement	Includes decisions by associations of undertakings and concerted practices unless otherwise stated, or as the context so demands.
Buyer	Refers to the end-user consumer, and/or an undertaking that buys products as inputs for production or for resale, as the context demands.
Intellectual Property Rights (IPRs)	Refers to all IPRs including those the rights granted under the Patents Act, (Chapter 221), Copyright Act, (Chapter 63), Plant Varieties Protection Act, (Chapter 232A), Layout-designsDesigns of Integrated Circuits Act, (Chapter 159A), Registered Designs Act (Chapter 266), Trade Marks Act (Chapter 332) and, Geographical Indications Act 2014 (No.19 of 2014), as well as and trade secrets.
Product	Refers to goods and/or services.
Seller	Refers to the primary producer, an undertaking that sells products as inputs for further production, and/or an undertaking that sells goods and services as a final product, as the context demands.
Undertaking	Refers to any person, being an individual, a body corporate, an unincorporated body of persons or any other entity, capable of carrying on commercial or economic activities relating to goods or services, as the context demands. Includes individuals operating as sole proprietorships, companies, partnerships, co-operatives, business chambers, trade associations and non-profit-making organisations.