EUROPEAN
COMMISSION

Brussels, XXX
C(2013) 924 draft

DRAFT COMMUNICATION FROM THE COMMISSION

Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements

DRAFT COMMUNICATION FROM THE COMMISSION

Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements

TABLE OF CONTENTS

I. INTRODUCTION

(1) These guidelines set out the principles for the assessment of technology transfer agreements under Article 101 of the Treaty on the Functioning of the European Union[1] ("Article 101"). Technology transfer agreements concern the licensing of technology where the licensor permits the licensee to exploit the licensed technology for the production of goods or services, as defined in Article 2 of Commission Regulation (EU) No [ ]/2014 on the application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of technology transfer agreements ("the TTBER")[2].

(2) The purpose of these guidelines is to provide guidance on the application of the TTBER as well as on the application of Article 101 of the Treaty on the Functioning of the European Union ("the Treaty") to technology transfer agreements that fall outside the scope of the TTBER. The TTBER and the guidelines are without prejudice to the possible parallel application of Article 102 of the Treaty to licensing agreements[3].

(3) The standards set forth in these guidelines must be applied in light of the circumstances specific to each case. This excludes a mechanical application. Each case must be assessed on its own facts and the guidelines must be applied reasonably and flexibly. Examples given serve as illustrations only and are not intended to be exhaustive.

(4) The present guidelines are without prejudice to the interpretation of Article 101 and the TTBER that may be given by the Court of Justice and the General Court.

II. GENERAL PRINCIPLES

1. ARTICLE 101 AND INTELLECTUAL PROPERTY RIGHTS

(5) The aim of Article 101 as a whole is to protect competition on the market with a view to promoting consumer welfare and an efficient allocation of resources. Article 101(1) prohibits all agreements and concerted practices between undertakings and decisions by associations of undertakings[4] which may affect trade between Member States[5] and which have as their object or effect the prevention, restriction or

---

1 With effect from 1 December 2009, Articles 81 and 82 of the EC Treaty have become Articles 101 and, 102, respectively, of the Treaty on the Functioning of the European Union ("TFEU"). The two sets of provisions are, in substance, identical. For the purposes of these Guidelines, references to Articles 101 and 102 of the TFEU should be understood as references to Articles 81 and 82, respectively, of the EC Treaty where appropriate. The TFEU also introduced certain changes in terminology, such as the replacement of "Community" by "Union" and "common market" by "internal market". The terminology of the TFEU will be used throughout these Guidelines.

2 OJ L [ ]. The TTBER replaces Commission Regulation (EC) No 772/2004 of 27 April 2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements (OJ L 123, 27.4.2004, p. 11).

3 See Joined Cases C-395/96 P and C-396/96 P, *Compagnie Maritime Belge*, [2000] ECR I-1365, paragraph 130, and paragraph 106 of the Commission Guidelines on the application of Article 81(3) of the Treaty, OJ C 101, 27.4.2004, p. 97.

4 In the following the term «agreement» includes concerted practices and decisions of associations of undertakings.

5 See Commission Guidelines on the effect on trade concept contained in Articles 81 and 82 of the Treaty, OJ C 101, 27.4.2004, p. 81.

distortion of competition[6]. As an exception to this rule Article 101(3) provides that the prohibition contained in Article 101(1) may be declared inapplicable in the case of agreements between undertakings which contribute to improving the production or distribution of products or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefits and which do not impose restrictions which are not indispensable to the attainment of these objectives and do not afford such undertakings the possibility of eliminating competition in respect of a substantial part of the products concerned.

(6) Intellectual property laws confer exclusive rights on holders of patents, copyright, design rights, trademarks and other legally protected rights. The owner of intellectual property is entitled under intellectual property laws to prevent unauthorised use of its intellectual property and to exploit it, *inter alia*, by licensing it to third parties. Once a product incorporating an intellectual property right has been put on the market inside the EEA by the holder or with its consent, the intellectual property right is exhausted in the sense that the holder can no longer use it to control the sale of the product[7] (principle of Union exhaustion). The right holder has no right under intellectual property laws to prevent sales by licensees or buyers of such products incorporating the licensed technology[8]. The principle of Union exhaustion is in line with the essential function of intellectual property rights, which is to grant the holder the right to exclude others from exploiting its intellectual property without its consent.

(7) The fact that intellectual property laws grant exclusive rights of exploitation does not imply that intellectual property rights are immune from competition law intervention. Articles 101 and 102 are in particular applicable to agreements whereby the holder licenses another undertaking to exploit its intellectual property rights[9]. Nor does it imply that there is an inherent conflict between intellectual property rights and the Union competition rules. Indeed, both bodies of law share the same basic objective of promoting consumer welfare and an efficient allocation of resources. Innovation constitutes an essential and dynamic component of an open and competitive market economy. Intellectual property rights promote dynamic competition by encouraging undertakings to invest in developing new or improved products and processes. So does competition by putting pressure on undertakings to innovate. Therefore, both intellectual property rights and competition are necessary to promote innovation and ensure a competitive exploitation thereof.

---

6 In the following the term «restriction» includes the prevention and distortion of competition.

7 This principle of Union exhaustion is for example enshrined in Article 7(1) of Directive 2008/95/EC to approximate the laws of the Member States relating to trade marks (Codified version) (OJ L 299, 8.11.2008, p. 25), which provides that the trade mark shall not entitle the proprietor to prohibit its use in relation to goods which have been put on the market in the Union under that trade mark by the proprietor or with its consent, and Article 4(2) of Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs (OJ L 111, 5.5.2009, p. 16), which provides that the first sale in the Union of a copy of a program by the right holder or with its consent shall exhaust the distribution right within the Union of that copy, with the exception of the right to control further rental of the program or a copy thereof. See in this respect C-128/11, *UsedSoft Gmbh v. Oracle International Corp.*, [2012] ECR XXX.

8 On the other hand, the sale of copies of a protected work does not lead to the exhaustion of performance rights, including rental rights, in the work, see in this respect Case 158/86, *Warner Brothers and Metronome Video*, [1988] ECR 2605, and Case C-61/97, *Foreningen af danske videogramdistributører*, [1998] ECR I-5171.

9 See e.g. Joined Cases 56/64 and 58/64, *Consten and Grundig*, [1966] ECR 429.

(8) In the assessment of licence agreements under Article 101 it must be kept in mind that the creation of intellectual property rights often entails substantial investment and that it is often a risky endeavour. In order not to reduce dynamic competition and to maintain the incentive to innovate, the innovator must not be unduly restricted in the exploitation of intellectual property rights that turn out to be valuable. For these reasons the innovator should normally be free to seek appropriate remuneration for successful projects that is sufficient to maintain investment incentives, taking failed projects into account. Technology licensing may also require the licensee to make significant sunk investments in the licensed technology and production assets necessary to exploit it. Article 101 cannot be applied without considering such *ex ante* investments made by the parties and the risks relating thereto. The risk facing the parties and the sunk investment that must be committed may thus lead to the agreement falling outside Article 101(1) or fulfilling the conditions of Article 101(3), as the case may be, for the period of time required to recoup the investment.

(9) In assessing licensing agreements under Article 101, the existing analytical framework is sufficiently flexible to take due account of the dynamic aspects of technology licensing. There is no presumption that intellectual property rights and licence agreements as such give rise to competition concerns. Most licence agreements do not restrict competition and create pro-competitive efficiencies. Indeed, licensing as such is pro-competitive as it leads to dissemination of technology and promotes (follow on) innovation. In addition, even licence agreements that do restrict competition may often give rise to pro-competitive efficiencies, which must be considered under Article 101(3) and balanced against the negative effects on competition[10]. The great majority of licence agreements are therefore compatible with Article 101.

2. THE GENERAL FRAMEWORK FOR APPLYING ARTICLE 101

(10) Article 101(1) prohibits agreements which have as their object or effect the restriction of competition. Article 101(1) applies both to restrictions of competition between the parties to an agreement and to restrictions of competition between any of the parties and third parties.

(11) The assessment of whether a licence agreement restricts competition must be made within the actual context in which competition would occur in the absence of the agreement with its alleged restrictions[11]. In making this assessment it is necessary to take account of the likely impact of the agreement on inter-technology competition (that is to say, competition between undertakings using competing technologies) and on intra-technology competition (that is to say, competition between undertakings using the same technology)[12]. Article 101(1) prohibits restrictions of both inter-technology competition and intra-technology competition. It is therefore necessary to assess to what extent the agreement affects or is likely to affect these two aspects of competition on the market.

[10] The methodology for the application of Article 101(3) is set out in the Commission Guidelines on the application of Article 81(3) of the Treaty, cited in note 3.

[11] See Case 56/65, *Société Technique Minière*, [1966] ECR 337, and Case C-7/95 P, *John Deere*, [1998] ECR I-3111, paragraph 76.

[12] See in this respect e.g. judgment in *Consten and Grundig* cited in note 9.

(12) The following two questions provide a useful framework for making this assessment. The first question relates to the impact of the agreement on inter-technology competition while the second question relates to the impact of the agreement on intra-technology competition. As restraints may be capable of affecting both inter-technology competition and intra-technology competition at the same time, it may be necessary to analyse a restraint in the light of both questions before it can be concluded whether or not competition within the meaning of Article 101(1) is restricted:

(a) Does the licence agreement restrict actual or potential competition that would have existed without the contemplated agreement? If so, the agreement may be caught by Article 101(1). In making this assessment it is necessary to take into account competition between the parties and competition from third parties. For instance, where two undertakings established in different Member States cross licence competing technologies and undertake not to sell products in each other's home markets, (potential) competition that existed prior to the agreement is restricted. Similarly, where a licensor imposes obligations on its licensees not to use competing technologies and these obligations foreclose third party technologies, actual or potential competition that would have existed in the absence of the agreement is restricted.

(b) Does the agreement restrict actual or potential competition that would have existed in the absence of the contractual restraint(s)? If so, the agreement may be caught by Article 101(1). For instance, where a licensor restricts its licensees from competing with each other, (potential) competition that could have existed between the licensees absent the restraints is restricted. Such restrictions include vertical price fixing and territorial or customer sales restrictions between licensees. However, certain restraints may in certain cases not be caught by Article 101(1) when the restraint is objectively necessary for the existence of an agreement of that type or that nature[13]. Such exclusion of the application of Article 101(1) can only be made on the basis of objective factors external to the parties themselves and not the subjective views and characteristics of the parties. The question is not whether the parties in their particular situation would not have accepted to conclude a less restrictive agreement, but whether, given the nature of the agreement and the characteristics of the market, a less restrictive agreement would not have been concluded by undertakings in a similar setting[14]. Claims that in the absence of a restraint the supplier would have resorted to vertical integration are not sufficient. Decisions on whether or not to vertically integrate depend on a broad range of complex economic factors, a number of which are internal to the undertaking concerned.

(13) In the application of the analytical framework set out in the previous paragraph it must be taken into account that Article 101(1) distinguishes between those agreements that have a restriction of competition as their object and those agreements that have a restriction of competition as their effect. An agreement or contractual restraint is only prohibited by Article 101(1) if its object or effect is to restrict inter-technology competition and/or intra-technology competition.

---

[13] See in this respect the judgment in *Société Technique Minière* cited in note 11 and Case 258/78, *Nungesser*, [1982] ECR 2015.

[14] For examples see paragraphs (116)-(117).

(14) Restrictions of competition by object are those that by their very nature restrict competition. These are restrictions which in light of the objectives pursued by the Union competition rules have such a high potential for negative effects on competition that it is not necessary for the purposes of applying Article 101(1) to demonstrate any effects on the market[15]. Moreover, the conditions of Article 101(3) are unlikely to be fulfilled in the case of restrictions by object. The assessment of whether or not an agreement has as its object a restriction of competition is based on a number of factors. These factors include, in particular, the content of the agreement and the objective aims pursued by it. It may also be necessary to consider the context in which it is (to be) applied or the actual conduct and behaviour of the parties on the market[16]. In other words, an examination of the facts underlying the agreement and the specific circumstances in which it operates may be required before it can be concluded whether a particular restriction constitutes a hardcore restriction of competition. The way in which an agreement is actually implemented may reveal a restriction by object even where the formal agreement does not contain an express provision to that effect. Evidence of subjective intent on the part of the parties to restrict competition is a relevant factor but not a necessary condition. For licence agreements, the Commission considers that the restrictions covered by the list of hardcore restrictions of competition contained in Article 4 of the TTBER are restrictive by their very object.[17]

(15) If an agreement is not restrictive of competition by object it is necessary to examine whether it has restrictive effects on competition. Account must be taken of both actual and potential effects[18]. In other words the agreement must have likely anti-competitive effects. For licence agreements to be restrictive of competition by effect they must affect actual or potential competition to such an extent that on the relevant market negative effects on prices, output, innovation or the variety or quality of goods and services can be expected with a reasonable degree of probability. The likely negative effects on competition must be appreciable[19]. Appreciable anti-competitive effects are likely to occur when at least one of the parties has or obtains some degree of market power and the agreement contributes to the creation, maintenance or strengthening of that market power or allows the parties to exploit such market power. Market power is the ability to maintain prices above competitive levels or to maintain output in terms of product quantities, product quality and variety or innovation below competitive levels for a not insignificant period of time.[20] The degree of market power normally required for a finding of an

---

15 See in this respect e.g. Case C-49/92 P, *Anic Partecipazioni*, [1999] ECR I-4125, paragraph 99.

16 See Joined Cases 29/83 and 30/83, *CRAM and Rheinzink*, [1984] ECR 1679, paragraph 26, and Joined Cases 96/82 and others, *ANSEAU-NAVEWA*, [1983] ECR 3369, paragraphs 23-25.

17 Further guidance with regard to the notion of restriction of competition by object can be obtained in the Commission Guidelines on the application of Article 81(3) of the Treaty, cited in note 3. See also case C-209/07 *Beef Industry Development Society and Barry Brothers* [2008] ECR I 8637, paragraphs 21 to 39, case C-8/08 *T-Mobile Netherlands and Others* [2009] ECR I-4529, paragraphs 31 and 36 to 39 and joined cases C-501/06 P, C-513/06 P, C-515/06 P and C-519/06 P *GlaxoSmithKline Services and Others v Commission and Others* [2009] ECR I-9291, paragraphs 59 to 64.

18 See the judgment in *John Deere*, [1998] cited in note 11.

19 Guidance on the issue of appreciability can be found in Commission Notice on agreements of minor importance which do not appreciably restrict competition under Article 81(1) of the Treaty (OJ C 368, 22.12.2001, p. 13). The Notice defines appreciability in a negative way. Agreements, which fall outside the scope of the *de minimis* notice, do not necessarily have appreciable restrictive effects. An individual assessment is required.

20 Case T-321/05 *Astra Zeneca v Commission* [2010] ECR II-2805, paragraph 267.

infringement under Article 101(1) is less than the degree of market power required for a finding of dominance under Article 102[21].

(16) For the purposes of analysing restrictions of competition by effect it is normally necessary to define the relevant market and to examine and assess, *inter alia*, the nature of the products and technologies concerned, the market position of the parties, the market position of competitors, the market position of buyers, the existence of potential competitors and the level of entry barriers. In some cases, however, it may be possible to show anti-competitive effects directly by analysing the conduct of the parties to the agreement on the market. It may for example be possible to ascertain that an agreement has led to price increases.

(17) Licence agreements, however, also have substantial pro-competitive potential. Indeed, the vast majority of licence agreements are pro-competitive. Licence agreements may promote innovation by allowing innovators to earn returns to cover at least part of their research and development costs. Licence agreements also lead to a dissemination of technologies, which may create value by reducing the production costs of the licensee or by enabling it to produce new or improved products. Efficiencies at the level of the licensee often stem from a combination of the licensor's technology with the assets and technologies of the licensee. Such integration of complementary assets and technologies may lead to a cost/output configuration that would not otherwise be possible. For instance, the combination of an improved technology of the licensor with more efficient production or distribution assets of the licensee may reduce production costs or lead to the production of a higher quality product. Licensing may also serve the pro-competitive purpose of removing obstacles to the development and exploitation of the licensee's own technology. In particular in sectors where large numbers of patents are prevalent licensing often occurs in order to create design freedom by removing the risk of infringement claims by the licensor. When the licensor agrees not to invoke its intellectual property rights to prevent the sale of the licensee's products, the agreement removes an obstacle to the sale of the licensee's product and thus generally promotes competition.

(18) In cases where a licence agreement is caught by Article 101(1) the pro-competitive effects of the agreement must be balanced against its restrictive effects in the context of Article 101(3). When all four conditions of Article 101(3) are satisfied, the restrictive licence agreement in question is valid and enforceable, no prior decision to that effect being required[22]. Hardcore restrictions of competition are unlikely to fulfil the conditions of Article 101(3). Such agreements generally fail (at least) one of the first two conditions of Article 101(3). They generally do not create objective economic benefits or benefits for consumers. Moreover, these types of agreements generally also fail the indispensability test under the third condition. For example, if the parties fix the price at which the products produced under the licence must be sold, this will generally lead to a lower output and a misallocation of resources and higher prices for consumers. The price restriction is also not indispensable to achieve

---

21 Commission Guidelines on the application of Article 81(3) of the Treaty, paragraph 26, cited in note 3.

22 See Article 1(2) of Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty ("Regulation No 1/2003") (OJ L 1, 4.1.2003, p. 1), last amended by Council Regulation No 1419/2006 of 25 September 2006 (OJ L 269, 28.9.2006, p. 1).

the possible efficiencies resulting from the availability to both competitors of the two technologies.

3. MARKET DEFINITION

(19) The Commission's approach to defining the relevant market is laid down in its market definition guidelines[23]. The present guidelines only address aspects of market definition that are of particular importance in the field of technology licensing.

(20) Technology is an input, which is integrated either into a product or a production process. Technology licensing can therefore affect competition both upstream in input markets and downstream in output markets. For instance, an agreement between two parties which sell competing products downstream and which also cross license technologies relating to the production of these products upstream may restrict competition on the downstream goods or services market concerned. The cross licensing may also restrict competition on the upstream market for technology and possibly also on other upstream input markets. For the purposes of assessing the competitive effects of licence agreements it may therefore be necessary to define the relevant product markets as well as the relevant technology markets[24].

(21) The relevant product market comprises the contract products (incorporating the licensed technology) and products which are regarded by the buyers as interchangeable with or substitutable for the contract products, by reason of the products' characteristics, their prices and their intended use. Contract products can be part of a final and/or an intermediate product market.

(22) The relevant technology markets consist of the licensed technology and its substitutes, that is to say, other technologies which are regarded by the licensees as interchangeable with or substitutable for the licensed technology, by reason of the technologies' characteristics, their royalties and their intended use. Starting from the technology which is marketed by the licensor, one needs to identify those other technologies to which licensees could switch in response to a small but permanent increase in relative prices, that is to say, the royalties. An alternative approach is to look at the market for products incorporating the licensed technology (cf. paragraph (25) below).

(23) The term "relevant market" used in Article 3 of the TTBER and defined in Article 1(1)(m) refers to the relevant product market and the relevant technology market in both their product and geographic dimension.

(24) The "relevant geographic market" is defined in Article 1(1)(l) of the TTBER and comprises the area in which the undertakings concerned are involved in the supply and demand of products or the licensing of technology, in which the conditions of competition are sufficiently homogeneous and which can be distinguished from

---

23 Commission Notice on the definition of the relevant market for the purposes of Community competition law (OJ C 372, 9.12.1997, p. 5).

24 See for example Commission Decision COMP/M.5675 *Syngenta/Monsanto* where the Commission analysed the merger of two vertically integrated sunflower breeders by examining both (i) the upstream market for the trading (namely the exchange and licensing) of varieties (parental lines and hybrids) and (ii) the downstream market for the commercialisation of hybrids. In COMP/M.5406, *IPIC/MAN Ferrostaal AG*, the Commission defined besides a market for the production of high-grade melamine also an upstream technology market for the supply of melamine production technology. See also COMP/M.269, *Shell/Montecatini*.

neighbouring areas because the conditions of competition are appreciably different in those areas The geographic market of the relevant technology market(s) can differ from the geographic market of the relevant product markets.

(25) Once relevant markets have been defined, market shares can be assigned to the various sources of competition in the market and used as an indication of the relative strength of market players. In the case of technology markets, one way to proceed is to calculate market shares on the basis of each technology's share of total licensing income from royalties, representing a technology's share of the market where competing technologies are licensed. However, this may often be a mere theoretical and not a practical way to proceed because of lack of clear information on royalties etc. Another approach, which is the one used for calculating the safe harbour, as explained in Article 8(d) of the TTBER, is to calculate market shares on the technology market on the basis of sales of products incorporating the licensed technology on downstream product markets (see for more details paragraph (76) ff. below). In individual cases outside the safe harbour of the TTBER it may be necessary, where practically possible, to apply both of the described approaches in order to assess more accurately the market strength of the licensor as well as to take into account other available factors which give a good indication of the relative strength of the available technologies (see for more factors paragraph (144) and (146) ff. below)[25].

(26) Some licence agreements may affect competition in innovation. In analysing such effects, however, the Commission will normally confine itself to examining the impact of the agreement on competition within existing product and technology markets[26]. Competition on such markets may be affected by agreements 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 agreement on product markets and technology markets. In a limited number of cases, however, it may be useful and necessary to also analyse separately the effects on competition in innovation. This is particularly the case where the agreement affects innovation aiming at creating new products and where it is possible at an early stage to identify research and development poles[27]. In such cases it can be analysed whether after the agreement there will be a sufficient number of competing research and development poles left for effective competition in innovation to be maintained.

4. THE DISTINCTION BETWEEN COMPETITORS AND NON-COMPETITORS

(27) In general, agreements between competitors pose a greater risk to competition than agreements between non-competitors. However, competition between undertakings that use the same technology (intra-technology competition between licensees) constitutes an important complement to competition between undertakings that use competing technologies (inter-technology competition). For instance, intra-technology competition may lead to lower prices for the products incorporating the

[25] See also Commission Decision COMP/M.5675 *Syngenta/Monsanto* and Decision COMP/M.5406, *IPIC/MAN Ferrostaal AG*.

[26] See also paragraphs 119 to 122 of the Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal cooperation agreements ("Horizontal Guidelines"), OJ C11/1, 14.1.2011.

[27] See also paragraph (144).

technology in question, which may not only produce direct and immediate benefits for consumers of these products, but also spur further competition between undertakings that use competing technologies. In the context of licensing it must also be taken into account that licensees are selling their own product. They are not re-selling a product supplied by another undertaking. There may thus be greater scope for product differentiation and quality-based competition between licensees than in the case of vertical agreements for the resale of products.

(28) In order to determine the competitive relationship between the parties it is necessary to examine whether the parties would have been actual or potential competitors in the absence of the agreement. If without the agreement the parties would not have been actual or potential competitors in any relevant market affected by the agreement they are deemed to be non-competitors.

(29) Where the licensor and the licensee are both active on the same relevant product market or the same relevant technology market without one or both parties infringing the intellectual property rights of the other party, they are actual competitors on the market concerned. The parties are actual competitors on the technology market if the licensee is already licensing out its technology and the licensor enters the technology market by granting a license for a competing technology to the licensee.

(30) The parties are considered to be potential competitors on the product market if it is likely that, in the absence of the agreement, and without infringing the intellectual property rights of the other party[28] they would have undertaken the necessary additional investment to enter the relevant market in response to a small but permanent increase in product prices. Likely entry should be assessed on realistic grounds, i.e. based on the facts of the case at hand, and be more than a theoretical possibility. This is more likely if the potential competitor possesses assets that could easily be used to enter the market without incurring significant sunk costs or if it has already developed plans to enter the market. In order to constitute a realistic competitive constraint entry has to be likely to occur within a short period. Normally a period of one to two years is appropriate. However, in individual cases longer periods can be taken into account. The period of time needed for undertakings already on the market to adjust their capacities can be used as a yardstick to determine this period. For instance, the parties are likely to be considered potential competitors on the product market where the licensee produces on the basis of its own technology in one geographic market and starts producing in another geographic market on the basis of a licensed competing technology. In such circumstances, it is likely that the licensee would have been able to enter the second geographic market on the basis of its own technology, unless such entry is precluded by objective factors, including the existence of blocking intellectual property rights (see paragraph (33)).

(31) The parties are considered to be potential competitors on the technology market where they own substitutable technologies if in the specific case 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 technology prices. In the case of technology markets, it is generally more difficult to assess whether the parties are potential competitors. This is why, for the application of the TTBER potential competition on

[28] One way or two way blocking position, see paragraph (33).

the technology market is not taken into account (see paragraph (71) below) and the parties are treated for the application of the TTBER as non-competitors.

(32) In some cases the parties may become competitors subsequent to the conclusion of the agreement because the licensee develops or acquires and starts exploiting a competing technology. In such cases it must be taken into account that the parties were non-competitors at the time of conclusion of the agreement and that the agreement was concluded in that context. The Commission will therefore mainly focus on the impact of the agreement on the licensee's ability to exploit its own (competing) technology. In particular, the list of hardcore restrictions applying to agreements between competitors will not be applied to such agreements unless the agreement is subsequently amended in any material respect after the parties have become competitors (cf. Article 4(3) of the TTBER). The undertakings party to an agreement may also become competitors subsequent to the conclusion of the agreement where the licensee was already active on the relevant market where the contract product is sold prior to the licence and where the licensor subsequently enters the relevant market either on the basis of the licensed technology or a new technology. Also in this case the hardcore list relevant for agreements between non-competitors will continue to apply to the agreement unless the agreement is subsequently amended in any material respect (cf. Article 4(3) of the TTBER). A material amendment includes the conclusion of a new technology transfer agreement between the parties concerning competing technologies which can be used for the production of products competing with the contract products.

(33) If the parties own technologies that are likely to be in a one-way or two-way blocking position, the parties are considered to be non-competitors on the product market. A one-way blocking position exists when a technology cannot be exploited without infringing upon another technology or if one party cannot be active on the relevant market without infringing the other parties' technology. This is for instance the case where one patent covers an improvement of a technology covered by another patent. In that case the exploitation of the improvement patent pre-supposes that the holder obtains a licence to the basic patent. A two-way blocking position exists where neither technology can be exploited without infringing upon the other technology and where the holders thus need to obtain a licence or a waiver from each other. In assessing whether a blocking position exists the Commission will rely on objective factors as opposed to the subjective views of the parties. Particularly convincing evidence of the existence of a blocking position is required where the parties may have a common interest in claiming the existence of a blocking position in order to be qualified as non-competitors, for instance where the claimed two-way blocking position concerns technologies that are technological substitutes. Relevant evidence includes court decisions including injunctions and opinions of independent experts. In the latter case the Commission will, in particular, closely examine how the expert has been selected. However, also other convincing evidence, including expert evidence from the parties that they have or had good and valid reasons to believe that a blocking position exists or existed, can be relevant to substantiate the existence of a blocking position.

(34) In some cases it may also be possible to conclude that while the licensor and the licensee produce competing products, they are non-competitors on the relevant product market and the relevant technology market because the licensed technology represents such a drastic innovation that the technology of the licensee has become obsolete or uncompetitive. In such cases the licensor's technology either creates a

new market or excludes the licensee's technology from the market. Often, however, it is not possible to come to this conclusion at the time the agreement is concluded. It is usually only when the technology or the products incorporating it have been available to consumers for some time that it becomes apparent that the older technology has become obsolete or uncompetitive. For instance, when CD technology was developed and players and discs were put on the market, it was not obvious that this new technology would replace LP technology. This only became apparent some years later. The parties will therefore be considered to be competitors if at the time of the conclusion of the agreement it is not obvious that the licensee's technology is obsolete or uncompetitive. However, given that both Articles 101(1) and Article 101(3) must be applied in light of the actual context in which the agreement occurs, the assessment is sensitive to material changes in the facts. The classification of the relationship between the parties will therefore change into a relationship of non-competitors, if at a later point in time the licensee's technology becomes obsolete or uncompetitive on the market.

III. APPLICATION OF THE TTBER

1. THE EFFECTS OF THE BLOCK EXEMPTION REGULATION

(35) Categories of technology transfer agreements that fulfil the conditions set out in the TTBER are block exempted from the prohibition rule contained in Article 101(1). Block exempted agreements are legally valid and enforceable. Such agreements can only be prohibited for the future and only upon withdrawal of the block exemption by the Commission or a Member State competition authority. Block exempted agreements cannot be prohibited under Article 101 by national courts in the context of private litigation.

(36) Block exemption of categories of technology transfer agreements is based on the presumption that such agreements — to the extent that they are caught by Article 101(1) — fulfil the four conditions laid down in Article 101(3). It is thus presumed that the agreements give rise to economic efficiencies, that the restrictions contained in the agreements are indispensable to the attainment of these efficiencies, that consumers within the affected markets receive a fair share of the efficiency gains and that the agreements do not afford the undertakings concerned the possibility of eliminating competition in respect of a substantial part of the products in question. The market share thresholds (Article 3), the hardcore list (Article 4) and the excluded restrictions (Article 5) set out in the TTBER aim at ensuring that only restrictive agreements that can reasonably be presumed to fulfil the four conditions of Article 101(3) are block exempted.

(37) As set out in section IV, many licence agreements fall outside Article 101(1), either because they do not restrict competition at all or because the restriction of competition is not appreciable[29]. To the extent that such agreements would anyhow fall within the scope of the TTBER, there is no need to determine whether they are caught by Article 101(1)[30].

[29] See in this respect the Notice on agreements of minor importance cited in note 19.

[30] According to Article 3(2) of Regulation (EC) No 1/2003, agreements which may affect trade between Member States but which are not prohibited by Article 81 cannot be prohibited by national competition law.

(38) Outside the scope of the block exemption it is relevant to examine whether in the individual case the agreement is caught by Article 101(1) and if so whether the conditions of Article 101(3) are satisfied. There is no presumption that technology transfer agreements falling outside the block exemption are caught by Article 101(1) or fail to satisfy the conditions of Article 101(3). In particular, the mere fact that the market shares of the parties exceed the market share thresholds set out in Article 3 of the TTBER is not a sufficient basis for finding that the agreement is caught by Article 101(1). Individual assessment of the likely effects of the agreement is required. It is only when agreements contain hardcore restrictions of competition that it can normally be presumed that they are prohibited by Article 101.

2. SCOPE AND DURATION OF THE TTBER

2.1. Agreements between two parties

(39) According to Article 2 of the TTBER, the Regulation covers technology transfer agreements "between two undertakings". Technology transfer agreements between more than two undertakings are not covered by the TTBER[31]. The decisive factor in terms of distinguishing between agreements between two undertakings and multiparty agreements is whether the agreement in question is concluded between more than two undertakings[32].

(40) Agreements concluded by two undertakings fall within the scope of the TTBER even if the agreement stipulates conditions for more than one level of trade. For instance, the TTBER applies to a licence agreement concerning not only the production stage but also the distribution stage, stipulating the obligations that the licensee must or may impose on resellers of the products produced under the licence[33].

(41) Licence agreements concluded between more than two undertakings often give rise to the same issues as licence agreements of the same nature concluded between two undertakings. In its individual assessment of licence agreements which are of the same nature as those covered by the block exemption but which are concluded between more than two undertakings, the Commission will apply by analogy the principles set out in the TTBER.

2.2. Agreements for the production of contract products

(42) It follows from Article 2 that for licence agreements to be covered by the TTBER they must be entered into "for the purpose of the production of contract products", that is to say, products incorporating or produced with the licensed technology. In other words, to be covered by the TTBER the licence must permit the licensee and/or its sub-contractor(s) to exploit the licensed technology for the purpose of producing goods or services (see recital 7 of the TTBER). The TTBER does not cover technology pools. The notion of technology pools covers agreements whereby two or more parties agree to pool their respective technologies and license them as a package. The notion of technology pools also covers arrangements whereby two or

---

[31] Under Council Regulation 19/65, OJ Special Edition Series I 1965-1966, p. 35, the Commission is not empowered to block exempt technology transfer agreements concluded between more than two undertakings.

[32] Agreements establishing technology pools and licensing out from technology pools are general considered to be multiparty agreements. See for more details paragraph (231).

[33] See recital 7 of the TTBER and further section 2.5 below.

more undertakings agree to license a third party and authorise it to license-on the package of technologies. Technology pools are dealt with in section IV.4.

(43) The TTBER applies to licence agreements for the purpose of the production of contract products by the licensee and/or its sub-contractor(s). Therefore, the TTBER does not apply to (those parts of) technology transfer agreements that allow for sublicensing. However, the Commission will apply by analogy the principles set out in the TTBER and these guidelines to "master licensing" agreements between licensor and licensee. Agreements between the licensee and sub-licensees for the production of contract products are covered by the TTBER.

(44) The term "contract products" encompasses goods and services produced with the licensed technology. This is the case both where the licensed technology is used in the production process and where it is incorporated into the product itself. In these guidelines the term "products incorporating the licensed technology" covers both situations. The TTBER applies in all cases where technology is licensed for the purposes of producing goods and services. It is sufficient in this respect that the licensor undertakes not to exercise its intellectual property rights against the licensee. Indeed, the essence of a pure patent licence is the right to operate inside the scope of the exclusive right of the patent. It follows that the TTBER also covers so-called non-assertion agreements and settlement agreements whereby the licensor permits the licensee to produce within the scope of the patent[34].

(45) The TTBER covers "subcontracting" whereby the licensor licenses technology to the licensee who undertakes to produce certain products on the basis thereof exclusively for the licensor. Subcontracting may also involve the supply of equipment by the licensor to be used in the production of the goods and services covered by the agreement. For the latter type of subcontracting to be covered by the TTBER as part of a technology transfer agreement, the supplied equipment must be directly and exclusively related to the production of the contract products. Subcontracting is also covered by the Commission Notice of 18 December 1978 concerning its assessment of certain subcontracting agreements in relation to Article 85(1) of the EEC Treaty[35]. According to that notice, which remains applicable, subcontracting agreements whereby the subcontractor undertakes to produce certain products exclusively for the contractor generally fall outside Article 101(1). Subcontracting agreements whereby the contractor determines the transfer price of the intermediate contract product between subcontractors in a value chain of subcontracting generally also fall outside Article 101(1) provided the contract products are exclusively produced for the contractor. However, other restrictions imposed on the subcontractor such as the obligation not to conduct or exploit its own research and development may be caught by Article 101[36].

(46) The TTBER also applies to agreements whereby the licensee must carry out development work before obtaining a product or a process that is ready for commercial exploitation, provided that a contract product has been identified. Even if such further work and investment is required, the object of the agreement is the production of an identified contract product, that is to say, products produced with the licensed technology. On the other hand, the TTBER and the guidelines do not

[34] See further on settlement and non-assertion agreements paragraphs (219) ff.
[35] OJ C 1, 3.1.1979, p. 2.
[36] See paragraph 3 of the subcontracting notice.

cover agreements whereby a technology is licensed for the purpose of enabling the licensee to carry out further research and development in various fields, including further developing a product arising out of such research and development[37]. For instance, the TTBER and the guidelines do not cover the licensing of a technological research tool used in the process of further research activity. The framework of the TTBER and the guidelines is based on the premise that there is a direct link between the licensed technology and an identified contract product. In cases where no such link exists the main object of the agreement is research and development as opposed to bringing a particular product to the market; in that case the analytical framework of the TTBER and the guidelines may not be appropriate. For the same reasons the TTBER and the guidelines do not cover research and development sub-contracting whereby the licensee undertakes to carry out research and development in the field of the licensed technology and to hand back the improved technology package to the licensor. The main object of such agreements is the provision of research and development services aimed at improving the technology as opposed to the production of goods and services on the basis of the licensed technology.

2.3. The concept of technology transfer agreements

(47) The TTBER and these guidelines cover agreements for the transfer of technology. According to Article 1(1)(b) of the TTBER the concept of "technology" covers patents, utility models, design rights, topographies of semiconductor products, supplementary protection certificates for medicinal products or other products for which such supplementary protection certificates may be obtained, plant breeders rights, know-how and software copyright or a combination thereof as well as applications for those rights and for registration of these rights. The licensed technology should allow the licensee with or without other inputs to produce the contract products. The TTBER only applies in EU Member States where the licensor holds relevant technology; otherwise, there is no technology to be transferred within the meaning of the TTBER.

(48) Know-how is defined in Article 1(1)(i) of the TTBER as a package of practical information, resulting from experience and testing, which is secret, substantial and identified. "Secret" means that the know-how is not generally known or easily accessible. "Substantial" means that the know-how includes information which is significant and useful for the production of the products covered by the licence agreement or the application of the process covered by the licence agreement. In other words, the information must significantly contribute to or facilitate the production of the contract products. In cases where the licensed know-how relates to a product as opposed to a process, this condition implies that the know-how is useful for the production the contract product. This condition is not satisfied where the contract product can be produced on the basis of freely available technology. However, the condition does not require that the contract product is of higher value than products produced with freely available technology. In the case of process technologies, this condition implies that the know-how is useful in the sense that it can reasonably be expected at the date of conclusion of the agreement to be capable of significantly improving the competitive position of the licensee, for instance by reducing its production costs. "Identified" means that it is possible to verify that the licensed know-how fulfils the criteria of secrecy and substantiality. This condition is

[37] See also section 2.5.1.

satisfied where the licensed know-how is described in manuals or other written form. However, in some cases this may not be reasonably possible. The licensed know-how may consist of practical knowledge possessed by the licensor's employees. For instance, the licensor's employees may possess secret and substantial knowledge about a certain production process which is passed on to the licensee in the form of training of the licensee's employees. In such cases it is sufficient to describe in the agreement the general nature of the know-how and to list the employees that will be or have been involved in passing it on to the licensee.

(49) The concept of "transfer" implies that technology must flow from one undertaking to another. Such transfers normally take the form of licensing whereby the licensor grants the licensee the right to use its technology against payment of royalties. It can also take the form of sub-licensing, whereby a licensee, having been authorised to do so by the licensor, grants licenses to third parties (sub-licensees) for the exploitation of the technology.

(50) Provisions in technology transfer agreements relating to the purchase of products by the licensee are only covered by the TTBER to the extent that those provisions are directly and exclusively related to the production of the contract products. Therefore the TTBER does not apply to (those parts of) a technology transfer agreement relating to input and/or equipment that are used for other purposes than the production of the contract products. For instance, where milk is sold together with licensing of technology to produce cheese, only the milk used for the production of cheese with the licensed technology will be covered by the TTBER.

(51) The TTBER only covers the licensing of other types of intellectual property such as trademarks and copyright, other than software copyright, to the extent that they are directly and exclusively related to the production of the contract products. This condition ensures that agreements covering other types of intellectual property rights are only block exempted to the extent that these other intellectual property rights serve to enable the licensee to better exploit the licensed technology. The licensor may for instance authorise the licensee to use its trademark on the products incorporating the licensed technology. The trademark licence may allow the licensee to better exploit the licensed technology by allowing consumers to make an immediate link between the product and the characteristics imputed to it by the licensed technology. An obligation on the licensee to use the licensor's trademark may also promote the dissemination of technology by allowing the licensor to identify itself as the source of the underlying technology. Provided that these other intellectual property rights enable the licensee to better exploit the licensed technology, the TTBER covers technology transfer agreements even if the principal interest of the parties lies in the exploitation of the former rather than the latter[38].

(52) The TTBER only covers licensing for the purpose of the production of contract products. The licensing of software copyright for the purpose of mere reproduction and distribution of the protected work, that is to say, the production of copies for resale, is not considered to be "production" within the meaning of the TTBER and thus is not covered by the TTBER and these guidelines. Such reproduction for distribution is instead covered by Commission Regulation (EU) No 330/2010 of 20 April 2010 on the application of Article 101(3) of the Treaty on the Functioning of

[38] The TTBER could now cover the technology transfer agreement assessed in the Commission Decision in *Moosehead/Whitbread* (OJ L 100, 20.4.1990, p. 32), see in particular paragraph 16.

the European Union to categories of vertical agreements and concerted practices.[39] It is reproduction for distribution where a licence is granted to reproduce the software on a carrier, regardless of the technical means by which the software is distributed. For instance, the TTBER and these guidelines do not cover the licensing of software copyright whereby the licensee is provided with a master copy of the software in order to reproduce and sell on the software to end users. Nor do they cover the licensing of software copyright and distribution of software by means of «shrink wrap» licences, that is, a set of conditions included in the package of the hard copy which the end user is deemed to have accepted by opening the wrapping of the package, or the licensing of software copyright and distribution of software by means of online downloading. On the other hand, it is not mere reproduction but production where the licensed software is incorporated by the licensee in the contract product. For instance, the TTBER and the guidelines cover the licensing of software copyright where the licensee has the right to reproduce the software by incorporating it into a device with which the software interacts. Although the TTBER does not cover copyright other than software copyright, the Commission will as a general rule apply the principles set out in the TTBER and these guidelines when assessing such licensing of copyright under Article 101.

(53) On the other hand, the licensing of rental rights and public performance rights protected by copyright, in particular for films or music, is considered to raise particular issues and it may not be warranted to assess such licensing on the basis of the principles developed in these guidelines. In the case of public performance value is created by each individual performance of the protected work. In the application of Article 101 the specificities of the work and the way in which it is exploited must be taken into account[40]. The Commission will therefore not apply the TTBER and the present guidelines by way of analogy to the licensing of these other rights.

(54) The Commission will also not extend the principles developed in the TTBER and these guidelines to trademark licensing. Trademark licensing often occurs in the context of distribution and resale of goods and services and is generally more akin to distribution agreements than technology licensing. Where a trademark licence is directly related to the use, sale or resale of goods and services and does not constitute the primary object of the agreement, the licence agreement is covered by Commission Regulation (EU) No 330/2010[41].

2.4. Duration

(55) Subject to the duration of the TTBER, which expires on 30 April 2026, the block exemption applies for as long as the licensed property right has not lapsed, expired or been declared invalid. In the case of know-how the block exemption applies as long as the licensed know-how remains secret, except where the know-how becomes publicly known as a result of action by the licensee, in which case the exemption shall apply for the duration of the agreement (cf. Article 2 of the TTBER).

(56) The block exemption applies to each licensed technology covered by the agreement and ceases to apply on the date of expiry, invalidity or the coming into the public domain of the last "technology" within the meaning of the TTBER (cf. paragraph (47)).

39 OJ L 102, 23.4.2010, p. 1.

40 See in this respect Case 262/81, *Coditel (II)*, [1982] ECR 3381.

41 Cited in note 39.

2.5. Relationship with other block exemption regulations

(57) The TTBER covers agreements between two undertakings concerning the licensing of technology for the purpose of the production of contract products. However, technology can also be an element of other types of agreements. In addition, the products incorporating the licensed technology are subsequently sold on the market. It is therefore necessary to address the interface between the TTBER and Commission Regulation (EU) No 1218/2010 of 14 December 2010 on the application of Article 101(3) of the Treaty on the Functioning of the European Union to certain categories of specialisation agreements[42], Commission Regulation (EU) No 1217/2010 of 14 December 2010 on the application of Article 101(3) of the Treaty on the Functioning of the European Union to certain categories of research and development agreements[43] and Commission Regulation (EU) No 330/2010[44].

2.5.1. The Block Exemption Regulations on specialisation and R&D agreements

(58) The TTBER does not apply to licensing in the context of specialisation agreements which are covered by Regulation (EU) No 1218/2010 or to licensing in the context of research and development agreements which are covered by Regulation (EU) No 1217/2010 (see recital 7 of the TTBER).

(59) According to Article 1(1)(d) of Regulation (EU) No 1218/2010 on specialisation agreements, that Regulation covers, *inter alia*, joint production agreements by virtue of which two or more parties agree to produce certain products jointly. The Regulation extends to provisions concerning the assignment or use of intellectual property rights, provided that they do not constitute the primary object of the agreement, but are directly related to and necessary for its implementation.

(60) Where undertakings establish a production joint venture and license the joint venture to exploit technology, which is used in the production of the products produced by the joint venture, such licensing is subject to Regulation (EU) No 1218/2010 on specialisation agreements and not the TTBER. Accordingly, licensing in the context of a production joint venture normally falls to be considered under Regulation (EU) No 1218/2010. However, where the joint venture engages in licensing of the technology to third parties, the activity is not linked to production by the joint venture and therefore not covered by that Regulation. Such licensing arrangements, which bring together the technologies of the parties, constitute technology pools, which are dealt with in section IV.4.

(61) Regulation (EU) No 1217/2010 on research and development agreements covers agreements whereby two or more undertakings agree to jointly carry out research and development and to jointly exploit the results thereof. According to Article 1(1)(m), research and development and the exploitation of the results are carried out jointly where the work involved is carried out by a joint team, organisation or undertakings, jointly entrusted to a third party or allocated between the parties by way of specialisation in research, development, production and distribution, including licensing. That Regulation also covers paid-for research and development agreements whereby two or more undertakings agree that the research and development is carried out by one party and financed by another party, with or

[42] OJ L 335, 18.12.2010, p. 43.
[43] OJ L 335, 18.12.2010, p. 36.
[44] See note 39.

without joint exploitation of the results thereof (cf. Article 1(1)(a) (vi) of Regulation (EU) No 1217/2010).

(62) It follows that Regulation (EU) No 1217/2010 on research and development agreements covers licensing between the parties and by the parties to a joint entity in the context of a research and development agreement. Such licensing is subject only to Regulation (EU) No 1217/2010 and not the TTBER. In the context of such agreements the parties can also determine the conditions for licensing the fruits of the research and development agreement to third parties. However, since third party licensees are not party to the research and development agreement, the individual licence agreement concluded with third parties is not covered by Regulation (EU) No 1217/2010. Such licence agreements are block exempted by the TTBER where they fulfil the conditions of that Regulation.

2.5.2. The Block Exemption Regulation on vertical agreements

(63) Commission Regulation (EU) No 330/2010 on vertical agreements covers agreements entered into between two or more undertakings each operating, for the purposes of the agreement, at different levels of the production or distribution chain, and relating to the conditions under which the parties may purchase, sell or resell certain goods or services. It thus covers supply and distribution agreements[45].

(64) Given that the TTBER only covers agreements between two parties and that a licensee, selling products incorporating the licensed technology, is a supplier for the purposes of Regulation (EU) No 330/2010, those two block exemption regulations are closely related. The agreement between licensor and licensee is subject to the TTBER whereas agreements concluded between a licensee and buyers of the contract products are subject to Regulation (EU) No 330/2010 and the Guidelines on Vertical Restraints[46].

(65) The TTBER also block exempts agreements between the licensor and the licensee where the agreement imposes obligations on the licensee as to the way in which it must sell the products incorporating the licensed technology. In particular, the licensee can be obliged to establish a certain type of distribution system such as exclusive distribution or selective distribution. However, the distribution agreements concluded for the purposes of implementing such obligations must, in order to be block exempted, comply with Regulation (EU) No 330/2010. For instance, the licensor can oblige the licensee to establish a system based on exclusive distribution in accordance with specified rules. However, it follows from Article 4(b) of Regulation (EU) No 330/2010 that distributors must be free to make passive sales into the territories of other exclusive distributors of the licensee.

(66) Furthermore, under Regulation (EU) No 330/2010 on vertical agreements distributors must in principle be free to sell both actively and passively into territories covered by the distribution systems of other suppliers, that is to say, other licensees producing their own products on the basis of the licensed technology. This is because for the purposes of Regulation (EU) No 330/2010 each licensee is a separate supplier. However, the reasons underlying the block exemption of active sales restrictions within a supplier's distribution system contained in that Regulation,

45 See the guide «Competition policy in Europe — The competition rules for supply and distribution agreements», 2012 (publication pending).

46 OJ C 130, 19.5.2010, p. 1, and note 39.

may also apply where the products incorporating the licensed technology are sold by different licensees under a common brand belonging to the licensor. When the products incorporating the licensed technology are sold under a common brand identity there may be the same efficiency reasons for applying the same types of restraints between licensees' distribution systems as within a single vertical distribution system. In such cases the Commission would be unlikely to challenge restraints where by analogy the requirements of Regulation (EU) No 330/2010 are fulfilled. For a common brand identity to exist the products must be sold and marketed under a common brand, which is predominant in terms of conveying quality and other relevant information to the consumer. It does not suffice that in addition to the licensees' brands the product carries the licensor's brand, which identifies it as the source of the licensed technology.

3. THE MARKET SHARE THRESHOLDS OF THE SAFE HARBOUR

(67) According to Article 3 of the TTBER, the block exemption of restrictive agreements, or in other words the safe harbour of the TTBER, is subject to market share thresholds, confining the scope of the block exemption to agreements that although they may be restrictive of competition can generally be presumed to fulfil the conditions of Article 101(3). Outside the safe harbour created by the market share thresholds individual assessment is required. The fact that market shares exceed the thresholds does not give rise to any presumption either that the agreement is caught by Article 101(1) or that the agreement does not fulfil the conditions of Article 101(3). In the absence of hardcore restrictions as set out in Article 4 of the TTBER, market analysis is required.

Relevant market share thresholds

(68) The market share threshold to be applied for the purpose of the safe harbour of the TTBER depends on whether the agreement is concluded between competitors, non-competitors which own substitutable technologies or other non-competitors.

(69) The market share thresholds apply both to the relevant market(s) of the licensed technology and the relevant market(s) of the contract products. If the applicable market share threshold is exceeded on one or several product and technology market(s), the block exemption does not apply to the agreement for that relevant market(s). For instance, if the licence agreement concerns two separate product markets, the block exemption may apply to one of the markets and not to the other.

(70) According to Article 3(1) TTBER the safe harbour provided in Article 2 TTBER shall apply on condition that the combined market share of the parties does not exceed 20% on any relevant market. The market share threshold of Article 3(1) of the TTBER is applicable if the parties are actual competitors or potential competitors on the product market(s) and/or actual competitors on the technology market (for the distinction between competitors and non-competitors, see paragraphs (27) ff.).

(71) Potential competition on the technology market is not taken into account for the application of the market share threshold or the hardcore list. Outside the safe harbour of the TTBER potential competition on the technology market is taken into account but does not lead to the application of the hardcore list relating to agreements between competitors (see also paragraph (31) above).

(72) For the application of the market share threshold for agreements between non-competitors, the TTBER makes a distinction between the scenario where the licensee

does not own a substitute technology and the scenario where the licensee already owns a substitute technology but that technology is not licensed-out and which is only used captively. If the licensee already owns technology which is substitutable for the licensed technology, the technology transfer agreement is more likely to negatively affect competition on the downstream product market as the licensee is already (potentially) active on that market without the technology transfer agreement in question. The technology transfer agreement may therefore further strengthen the licensee's already existing position on the downstream market and/or potentially weaken actual or potential downstream competitors (for example by foreclosing them through an exclusive license agreement). The second scenario may also more easily affect competition in innovation as the licensor and the licensee own and could possibly improve substitute technologies.

(73) For those reasons Article 3(2) of the TTBER provides that, where the parties are not competing undertakings but the licensee owns a captive technology which is substitutable for the licensed technology, the market threshold of Article 3(1) TTBER, that is to say, the 20% market share threshold, applies. However, the hardcore list for non-competitors still applies for these agreements.

(74) Where the undertakings party to the licensing agreement are not competitors, the market share threshold of Article 3(3) of the TTBER applies. Thus, the agreement is covered if the market share of each party does not exceed 30% on the affected relevant technology and product markets.

(75) Where the parties become competitors in the meaning of Article 3(1) at a later point in time, for instance where the licensee was already present, before the licensing, on the relevant market where the contract products are sold and the licensor subsequently becomes an actual or potential supplier on the same relevant market, the 20% market share threshold will apply from the point in time when they became competitors. However, in that case the hardcore list relevant for agreements between non-competitors will continue to apply to the agreement unless the agreement is subsequently amended in any material respect (see Article 4(3) of the TTBER and paragraph (32)).

Calculating market shares for technology market(s) for the application of the safe harbour

(76) The calculation of market shares on the relevant markets where the technology is licensed, under the TTBER, deviates from the usual practice for the reasons explained in paragraph (77). In the case of technology markets, it follows from Article 8(d) of the TTBER that, both for the product and the geographic dimension of the relevant market, the licensor's market share is to be calculated on the basis of the sales of the licensor and all its licensees of products incorporating the licensed technology. Under this approach the combined sales of the licensor and its licensees of contract products are calculated as part of all sales of competing products, irrespective of whether these competing products are produced with a technology that is being licensed.

(77) This approach, to calculate the market share of the licensor on the technology market as its "footprint" at the product level, was chosen because of the practical difficulties in calculating a licensor's market share based on royalty income (see paragraph (25)). In addition to the general difficulty of obtaining reliable royalty income data, the actual royalty income may also seriously underestimate a technology's position on the market in the event that royalty payments are reduced as a result of cross licensing or the supply of tied products. Basing the licensor's market share on the

technology market on the products produced with that technology as compared with products produced with competing technologies would not carry that risk. Such a footprint at the product level will in general reflect well the market position of the technology.

(78) Ideally such footprint would be calculated by excluding from the product market the products produced with in-house technologies that are not licensed out, as those in-house technologies are only an indirect constraint on the licensed technology. However, as it may be difficult in practice for licensor and licensees to know whether other products in the same product market are produced with licensed or in-house technologies, the calculation of the technology market share, for the purposes of the TTBER, is based on the products produced with the licensed technology as part of all products sold in that product market. This approach based on the technology's footprint on the overall product market(s) usually reduces the calculated market share by including products produced with in-house technologies but will in general provide a good indicator of the strength of the technology. First, it captures any potential competition from undertakings that are producing with their own technology and that are likely to start licensing in the event of a small but permanent increase in the price for licenses. Secondly, even where it is unlikely that other technology owners would start licensing, the licensor does not necessarily have market power on the technology market even if it has a high share of licensing income. If the downstream product market is competitive, competition at this level may effectively constrain the licensor. An increase in royalties upstream affects the costs of the licensee, making it less competitive and thereby causing it to lose sales. A technology's market share on the product market also captures this element and is thus normally a good indicator of licensor market power on the technology market.

(79) To estimate the strength of the technology, the geographic dimension of the technology market has also to be taken into acount. This might sometimes differ from the geographic dimension of the respective downstream product market. For the purpose of applying theTTBER, the geographic dimension of the relevant technology market is also determined by the product market(s). However, outside the TTBER safe harbour it may be appropriate to also consider a possibly wider geographic area, in which the licensor and licensees of competing technologies are involved in the licensing of these technologies and in which the conditions of competition are sufficiently homogeneous and which can be distinguished from neighbouring areas because the conditions of competition are appreciaby different in those areas.

(80) In the case of new technologies which were not yet incorporated in the production of products and did not therefore yet generate any sales in the preceding calendar year, a zero market share is assigned. When sales commence the technology will start accumulating market share. If the market share rises subsequently above the relevant threshold of 20% or 30%, the safe harbour will continue to apply for a period of two consecutive calendar years following the year in which the threshold was exceeded (see Article 8(e) of the TTBER).

Calculating market shares for product market(s) for the application of the safe harbour

(81) In the case of relevant markets where the contract products are sold, the licensee's market share is to be calculated on the basis of the licensee's sales of products incorporating the licensor's technology and competing products, that is to say, the total sales of the licensee on the product market in question. Where the licensor is also a supplier of products on the relevant market, the licensor's sales on the product

market in question must also be taken into account. In the calculation of market shares for product markets, however, sales made by other licensees are not taken into account when calculating the licensee's and/or licensor's market share.

(82) Market shares should be calculated on the basis of sales value data of the preceding year where such data are available. Such data normally provide a more accurate indication of the strength of a technology than volume data. However, where value based data are not available, estimates based on other reliable market information may be used, including market sales volume data.

(83) The principles set out above can be illustrated by the following examples:

Licensing between non-competitors

Example 1

Company A is specialised in developing bio-technological products and techniques and has developed a new product Xeran. It is not active as a producer of Xeran, for which it has neither the production nor the distribution facilities. Company B is one of the producers of competing products, produced with freely available non-proprietary technologies. In year 1, B was selling EUR 25 million worth of products produced with the freely available technologies. In year 2, A gives a licence to B to produce Xeran. In that year B sells EUR 15 million produced with the help of the freely available technologies and EUR 15 million of Xeran. In year 3 and the following years B produces and sells only Xeran worth EUR 40 million annually. In addition in year 2, A is also licensing to C. C was not active on that product market before. C produces and sells only Xeran, EUR 10 million in year 2 and EUR 15 million in year 3 and thereafter. It is established that the total market of Xeran and its substitutes where B and C are active is worth EUR 200 million in each year.

In year 2, the year the licence agreement is concluded, A's market share on the technology market is 0 % as its market share has to be calculated on the basis of the total sales of Xeran in the preceding year. In year 3 A's market share on the technology market is 12.5 %, reflecting the value of Xeran produced by B and C in the preceding year 2. In year 4 and thereafter A's market share on the technology market is 27.5 %, reflecting the value of Xeran produced by B and C in the preceding year.

In year 2 B's market share on the product market is 12.5 %, reflecting B's EUR 25 million sales in year 1. In year 3 B's market share is 15 % because its sales have increased to EUR 30 million in year 2. In year 4 and thereafter B's market share is 20 % as its sales are EUR 40 million annually. C's market share on the product market is 0 % in year 1 and 2, 5 % in year 3 and 7.5 % thereafter.

As the licence agreements between A and B, and between A and C, are between non-competitors and the individual market shares of A, B and C are below 30 % each year, each agreement falls within the safe harbour of the TTBER.

Example 2

The situation is the same as in example 1, however now B and C are operating in different geographic markets. It is established that the total market of Xeran and its substitutes is worth EUR 100 million annually in each geographic market.

In this case, A's market share on the relevant technology markets has to be calculated on the basis of product sales data of each of the two geographic product markets separately. In the market where B is active A's market share depends on the sale of Xeran by B. As in this example the total market is assumed to be EUR 100 million, that is to say, half the size of the market in example 1, the market share of A is 0 % in year 2, 15 % in year 3 and 40 %

thereafter. B's market share is 25 % in year 2, 30 % in year 3 and 40 % thereafter. In year 2 and 3 both A's and B's market share does not exceed the 30 % threshold. The threshold is however exceeded from year 4 and this means that, in line with Article 8(e) of the TTBER, after year 6 the licence agreement between A and B can no longer benefit from the safe harbour but has to be assessed on an individual basis.

In the market where C is active A's market share depends on the sale of Xeran by C. A's market share on the technology market, based on C's sales in the previous year, is therefore 0 % in year 2, 10 % in year 3 and 15 % thereafter. The market share of C on the product market is the same: 0 % in year 2, 10 % in year 3 and 15 % thereafter. The licence agreement between A and C therefore falls within the safe harbour for the whole period.

Licensing between non-competitors where the licensee owns a substitute technology

Example 3

As example 1, Company A is specialised in developing bio-technological products and techniques and has developed a new product Xeran. It is not active as a producer of Xeran, for which it has neither the production nor the distribution facilities. Company B is one of the producers of competing products, produced with its own technology used only in-house (captive use). In year 1, B was selling EUR 28 million worth of products produced with its own technology. In year 2, A gives an exclusive licence to B to produce Xeran. In that year and the following years B sells EUR 20 million produced with the help of its own technology and EUR 25 million of Xeran. It is established that the total market of Xeran and its substitutes where B is active is worth EUR 100 million in each year.

In year 2, the year the licence agreement is concluded, A's market share on the technology market is 0 % as its market share has to be calculated on the basis of the total sales of Xeran in the preceding year. In year 3 and the following years A's market share on the technology market is 25 %, reflecting the value of Xeran produced by B in the preceding year 2 and thereafter.

In year 2 B's market share on the product market is 28 %, reflecting B's EUR 28 million sales in year 1. In year 3 and the following years B's market share is 45 % because its sales have increased to EUR 45 million in year 2 and thereafter.

Although the licence agreement is between non-competitors and the individual market shares of A and B are below 30% at least for year 2, the agreement falls outside the safe harbour of the TTBER from the start of licensing. While A and B are non-competitors for the purpose of the TTBER, the lower market share threshold of 20% applies according to Article 3(2) of the TTBER because B owns a captively used substitute technology. The agreement will therefore have to be assessed on an individual basis.

Licensing between competitors

Example 4

Companies A and B are active on the same relevant product and geographic market for a certain chemical product. They also each own a patent on different technologies used to produce this product. In year 1 A and B sign a cross licence agreement licensing each other to use their respective technologies. In year 1 A and B produce only with their own technology and A sells EUR 15 million of the product and B sells EUR 20 million of the product. From year 2 they both use their own and the other's technology. From that year onward A sells EUR 10 million of the product produced with its own technology and EUR 10 million of the product produced with B's technology. B sells from year 2 EUR 15 million of the product produced with its own technology and EUR 10 million of the product produced with A's technology. It is established that the total market of the product and its substitutes is worth EUR 100 million in each year.

To assess the licence agreement under the TTBER, the market shares of A and B have to be calculated both on the technology market and the product market. The market share of A on the technology market depends on the amount of the product sold in the preceding year that was produced, by both A and B, with A's technology. In year 2 the market share of A on the technology market is therefore 15 %, reflecting its own production and sales of EUR 15 million in year 1. From year 3 A's market share on the technology market is 20 %, reflecting the EUR 20 million sale of the product produced with A's technology and produced and sold by A and B (EUR 10 million each). Similarly, in year 2 B's market share on the technology market is 20 % and thereafter 25 %.

The market shares of A and B on the product market depend on their respective sales of the product in the previous year, irrespective of the technology used. The market share of A on the product market is 15 % in year 2 and 20 % thereafter. The market share of B on the product market is 20 % in year 2 and 25 % thereafter.

As the agreement is between competitors, their combined market share, both on the technology and on the product market, has to be below the 20 % market share threshold in order to benefit from the safe harbour. It is clear that this is not the case here. The combined market share on the technology market and on the product market is 35 % in year 2 and 45 % thereafter. This agreement between competitors will therefore have to be assessed on an individual basis.

4. HARDCORE RESTRICTIONS OF COMPETITION UNDER THE BLOCK EXEMPTION REGULATION

4.1. General principles

(84) Article 4 of the TTBER contains a list of hardcore restrictions of competition. The classification of a restraint as a hardcore restriction of competition is based on the nature of the restriction and experience showing that such restrictions are almost always anti-competitive. In line with the case law of the Union Courts[47] such a restriction may result from the clear objective of the agreement or from the circumstances of the individual case (cf. paragraph (14)). Hardcore restrictions may be objectively necessary in exceptional cases for an agreement of a particular type or nature[48] and therefore fall outside Article 101(1). In addition, undertakings may plead an efficiency defence under Article 101(3) in an individual case.[49]

(85) When a technology transfer agreement contains a hardcore restriction of competition, it follows from Article 4(1) and 4(2) of the TTBER that the agreement as a whole falls outside the scope of the block exemption. For the purposes of the TTBER hardcore restrictions cannot be severed from the rest of the agreement. Moreover, the Commission considers that in the context of individual assessment it is unlikely that hardcore restrictions of competition fulfil the four conditions of Article 101(3) (cf. paragraph (18)).

[47] See e.g. the case law cited in note 16.
[48] See paragraph 18 of the Commission Guidelines on the application of Article 81(3) of the Treaty, cited in note 3.
[49] Case T-17/93 *Matra* [1994] ECR II-595, paragraph 85.

(86) Article 4 of the TTBER distinguishes between agreements between competitors and agreements between non-competitors.

4.2. Agreements between competitors

(87) Article 4(1) lists the hardcore restrictions for licensing between competitors. According to Article 4(1), the TTBER does not cover agreements which, directly or indirectly, in isolation or in combination with other factors under the control of the parties, have as their object any of the following:

(a) the restriction of a party's ability to determine its prices when selling products to third parties;

(b) the limitation of output, except limitations on the output of contract products imposed on the licensee in a non-reciprocal agreement or imposed on only one of the licensees in a reciprocal agreement;

(c) the allocation of markets or customers except:

(i) the obligation on the licensee(s) to produce with the licensed technology only within one or more technical fields of use or one or more product markets;

(ii) the obligation on the licensor and/or the licensee, in a non-reciprocal agreement, not to produce with the licensed technology within one or more technical fields of use or one or more product markets or one or more exclusive territories reserved for the other party;

(iii) the obligation on the licensor not to license the technology to another licensee in a particular territory;

(iv) the restriction, in a non-reciprocal agreement, of active and/or passive sales by the licensee and/or the licensor into the exclusive territory or to the exclusive customer group reserved for the other party;

(v) the restriction, in a non-reciprocal agreement, of active sales by the licensee into the exclusive territory or to the exclusive customer group allocated by the licensor to another licensee provided that the latter was not a competing undertaking of the licensor at the time of the conclusion of its own licence;

(vi) the obligation on the licensee to produce the contract products only for its own use provided that the licensee is not restricted in selling the contract products actively and passively as spare parts for its own products;

(vii) the obligation on the licensee in a non-reciprocal agreement to produce the contract products only for a particular customer, where the licence was granted in order to create an alternative source of supply for that customer;

(d) the restriction of the licensee's ability to exploit its own technology or the restriction of the ability of any of the parties to the agreement to carry out research and development, unless such latter restriction is indispensable to prevent the disclosure of the licensed know-how to third parties.

Distinction between reciprocal and non-reciprocal agreements between competitors

(88) For a number of hardcore restrictions the TTBER makes a distinction between reciprocal and non-reciprocal agreements. The hardcore list is stricter for reciprocal agreements than for non-reciprocal agreements between competitors. Reciprocal agreements are cross-licensing agreements where the licensed technologies are competing technologies or can be used for the production of competing products. A

non-reciprocal agreement is an agreement where only one of the parties is licensing its technology to the other party or where in case of cross-licensing the licensed technologies are not competing technologies and cannot be used for the production of competing products. An agreement is not reciprocal for the purposes of the TTBER merely because the agreement contains a grant back obligation or because the licensee licenses back own improvements of the licensed technology. In case at a later point in time a non-reciprocal agreement becomes a reciprocal agreement due to the conclusion of a second licence between the same parties, they may have to revise the first licence in order to avoid that the agreement contains a hardcore restriction. In the assessment of the individual case the Commission will take into account the time lapsed between the conclusion of the first and the second licence.

Price restrictions between competitors

(89) The hardcore restriction of competition contained in Article 4(1)(a) concerns agreements between competitors that have as their object the fixing of prices for products sold to third parties, including the products incorporating the licensed technology. Price fixing between competitors constitutes a restriction of competition by its very object. Price fixing can for instance take the form of a direct agreement on the exact price to be charged or on a price list with certain allowed maximum rebates. It is immaterial whether the agreement concerns fixed, minimum, maximum or recommended prices. Price fixing can also be implemented indirectly by applying disincentives to deviate from an agreed price level, for example, by providing that the royalty rate will increase if product prices are reduced below a certain level. However, an obligation on the licensee to pay a certain minimum royalty does not in itself amount to price fixing.

(90) When royalties are calculated on the basis of individual product sales, the amount of the royalty has a direct impact on the marginal cost of the product and thus a direct impact on product prices[50]. Competitors can therefore use cross licensing with reciprocal running royalties as a means of coordinating and/or increasing prices on downstream product markets[51]. However, the Commission will only treat cross licences with reciprocal running royalties as price fixing where the agreement is devoid of any pro-competitive purpose and therefore does not constitute a bona fide licensing arrangement. In such cases where the agreement does not create any value and therefore has no valid business justification, the arrangement is a sham and amounts to a cartel.

(91) The hardcore restriction contained in Article 4(1)(a) also covers agreements whereby royalties are calculated on the basis of all product sales irrespective of whether the licensed technology is being used. Such agreements are also caught by Article 4(1)(d) according to which the licensee must not be restricted in its ability to use its own technology (see paragraph (106) below). In general such agreements restrict competition since the agreement raises the cost of using the licensee's own competing technology and restricts competition that existed in the absence of the

[50] See in this respect paragraph 98 of the Guidelines on the application of Article 81(3) of the Treaty cited in note 3.

[51] This is also the case where one party grants a licence to the other party and accepts to buy a physical input from the licensee. The purchase price can serve the same function as the royalty.

agreement[52]. This is so both in the case of reciprocal and non-reciprocal arrangements.

(92) Exceptionally, however, an agreement whereby royalties are calculated on the basis of all product sales may fulfil the conditions of Article 101(3) in an individual case where on the basis of objective factors it can be concluded that the restriction is indispensable for pro-competitive licensing to occur. This may be the case where in the absence of the restraint it would be impossible or unduly difficult to calculate and monitor the royalty payable by the licensee, for instance because the licensor's technology leaves no visible trace on the final product and practicable alternative monitoring methods are unavailable.

Output restrictions between competitors

(93) The hardcore restriction of competition set out in Article 4(1)(b) concerns reciprocal output restrictions on the parties. An output restriction is a limitation on how much a party may produce and sell. Article 4(1)(b) does not apply to output limitations on the licensee in a non-reciprocal agreement or output limitations on one of the licensees in a reciprocal agreement provided that the output limitation only concerns products produced with the licensed technology. Article 4(1)(b) thus identifies as hardcore restrictions reciprocal output restrictions on the parties and output restrictions on the licensor in respect of its own technology. When competitors agree to impose reciprocal output limitations, the object and likely effect of the agreement is to reduce output in the market. The same is true of agreements that reduce the incentive of the parties to expand output, for example by applying reciprocal running royalties per unit which increase as output increases or by obliging each other to make payments if a certain level of output is exceeded..

(94) The more favourable treatment of non-reciprocal quantity limitations is based on the consideration that a one-way restriction does not necessarily lead to a lower output on the market while also the risk that the agreement is not a bona fide licensing arrangement is less when the restriction is non-reciprocal. When a licensee is willing to accept a one-way restriction, it is likely that the agreement leads to a real integration of complementary technologies or an efficiency enhancing integration of the licensor's superior technology with the licensee's productive assets. In a reciprocal agreement an output restriction on one of the licensees is likely to reflect the higher value of the technology licensed by one of the parties and may serve to promote pro-competitive licensing.

Market and customer allocation between competitors

(95) The hardcore restriction of competition set out in Article 4(1)(c) concerns the allocation of markets and customers. Agreements whereby competitors share markets and customers have as their object the restriction of competition. It is a hardcore restriction where competitors in a reciprocal agreement agree not to produce in certain territories or not to sell actively and/or passively into certain territories or to certain customers reserved for the other party.

(96) Article 4(1)(c) applies irrespective of whether the licensee remains free to use its own technology. Once the licensee has tooled up to use the licensor's technology to produce a given product, it may be costly to maintain a separate production line using another technology in order to serve customers covered by the restrictions.

---

[52] See in this respect Case 193/83, *Windsurfing International,* [1986] ECR 611, paragraph 67.

Moreover, given the anti-competitive potential of the restraints the licensee may have little incentive to produce under its own technology. Such restrictions are also highly unlikely to be indispensable for pro-competitive licensing to occur.

(97) Under Article 4(1)(c)(ii) it is not a hardcore restriction for the licensor in a non-reciprocal agreement to grant the licensee an exclusive licence to produce on the basis of the licensed technology in a particular territory and thus agree not to produce itself the contract products in or provide the contract products from that territory. Such exclusive licences are block exempted irrespective of the scope of the territory. If the licence is world-wide, the exclusivity implies that the licensor abstains from entering or remaining on the market. The block exemption also applies where the licence is limited to one or more technical fields of use or one or more product markets. The purpose of agreements covered by Article 4(1)(c)(ii) may be to give the licensee an incentive to invest in and develop the licensed technology. The object of the agreement is therefore not necessarily to share markets.

(98) According to Article 4(1)(c)(iv) and for the same reason, the block exemption also applies to non-reciprocal agreements whereby the parties agree not to sell actively or passively into an exclusive territory or to an exclusive customer group reserved for the other party. For the application of the TTBER, the Commission interprets "active" and passive" sales as defined in the Guidelines on Vertical Restraints[53]. Restrictions on licensee or licensor to sell actively and passively into the other party's territory or customer group are only block exempted if that territory or customer group has been exclusively reserved to that other party, that is to say, that also none of the other licensees are allowed to (actively) sell there. However, in some specific circumstances, agreements containing such sales restrictions may, in an individual case, also fulfil the conditions of Article 101(3) if the exclusivity is shared on an ad hoc basis, for instance if necessary to alleviate a temporary shortage in the production of the licensor or licensee to which the territory or customer group is exclusively allocated. In such cases, the licensor or licensee is still likely to be sufficiently protected against active and passive sales to have the incentive to license its technology or invest to work with the licensed technology and thereby such restraints, where restrictive of competition, would promote pro-competitive dissemination of technology and integration of such technology into the production assets of the licensee.

(99) According to Article 4(1)(c)(iii) it is also not a hardcore restriction if the licensor appoints the licensee as its sole licensee in a particular territory, implying that third parties will not be licensed to produce on the basis of the licensor's technology in the territory in question. In the case of such sole licences the block exemption applies irrespective of whether the agreement is reciprocal or not given that the agreement does not affect the ability of the parties to fully exploit their own technology in their respective territories.

(100) Article 4(1)(c)(v) excludes from the hardcore list and thus block exempts up to the market share threshold restrictions in a non-reciprocal agreement on active sales by a licensee into the territory or to the customer group allocated by the licensor to another licensee. It is a condition, however, that the protected licensee was not a competitor of the licensor when the agreement was concluded. It is not warranted to hardcore such restrictions. By allowing the licensor to grant a licensee, who was not

[53] See citation in note 46, paragraph 51.

already on the market, protection against active sales by licensees which are competitors of the licensor and which for that reason are already established on the market, such restrictions are likely to induce the licensee to exploit the licensed technology more efficiently. On the other hand, if the licensees were to agree between themselves not to sell actively or passively into certain territories or to certain customer groups, the agreement amounts to a cartel amongst the licensees. Given that such agreements do not involve any transfer of technology they fall outside the scope of the TTBER.

(101) According to Article 4(1)(c)(i) restrictions in agreements between competitors that limit the licence to one or more product markets or technical fields of use[54] are not hardcore restrictions. Such restrictions are block exempted up to the market share threshold of 20 % irrespective of whether the agreement is reciprocal or not. It is a condition for the application of the block exemption, however, that the field of use restrictions do not go beyond the scope of the licensed technologies. It is also a condition that licensees are not limited in the use of their own technology (see Article 4(1)(d)). Where licensees are limited in the use of their own technology the agreement amounts to market sharing.

(102) The block exemption applies irrespective of whether the field of use restriction is symmetrical or asymmetrical. An asymmetrical field of use restriction in a reciprocal licence agreement implies that both parties are allowed to use the respective technologies that they license-in only within different fields of use. As long as the parties are unrestricted in the use of their own technologies, it is not assumed that the agreement leads the parties to abandon or refrain from entering the field(s) covered by the licence to the other party. Even if the licensees tool up to use the licensed technology within the licensed field of use, there may be no impact on assets used to produce outside the scope of the licence. It is important in this regard that the restriction relates to distinct product markets, industrial sector(s) or fields of use and not to customers, allocated by territory or by group, who purchase products falling within the same product market or technical field of use. The risk of market sharing is considered substantially greater in the latter case (see paragraph (96) above). In addition, field of use restrictions may be necessary to promote pro-competitive licensing (see paragraph (197) below).

(103) Article 4(1)(c)(vi) contains a further exception, namely captive use restrictions, that is to say, a requirement whereby the licensee may produce the products incorporating the licensed technology only for its own use. Where the contract product is a component the licensee can thus be obliged to produce that component only for incorporation into its own products and can be obliged not to sell the components to other producers. The licensee must be able, however, to sell the components as spare parts for its own products and must thus be able to supply third parties that perform after sale services on these products. Captive use restrictions as defined may be necessary to encourage the dissemination of technology, particularly between competitors, and are covered by the block exemption. Such restrictions are also dealt with in section IV.2.5 below.

(104) Finally, Article 4(1)(c)(vii) excludes from the hardcore list an obligation on the licensee in a non-reciprocal agreement to produce the contract products only for a particular customer with a view to creating an alternative source of supply for that

54 Field of use restrictions are further dealt with in paragraphs (193) ff. below.

customer. It is thus a condition for the application of Article 4(1)(c)(vii) that the licence is limited to creating an alternative source of supply for that particular customer. It is not a condition, however, that only one such licence is granted. Article 4(1)(c)(vii) also covers situations where more than one undertaking is licensed to supply the same specified customer. Article 4(1)(c)(vii) applies regardless of the duration of the licence agreement. For instance, a one-off licence to fulfil the requirements of a project of a particular customer is covered by this exception. The potential of such agreements to share markets is limited where the licence is granted only for the purpose of supplying a particular customer. In particular, in such circumstances it cannot be assumed that the agreement will cause the licensee to cease exploiting its own technology.

Restrictions on the parties' ability to carry out research and development

(105) The hardcore restriction of competition set out in Article 4(1)(d) covers firstly restrictions on any of the parties' ability to carry out research and development. Both parties must be free to carry out independent research and development. This rule applies irrespective of whether the restriction applies to a field covered by the licence or to other fields. However, the mere fact that the parties agree to provide each other with future improvements of their respective technologies does not amount to a restriction on independent research and development. The effect on competition of such agreements must be assessed in light of the circumstances of the individual case. Article 4(1)(d) also does not extend to restrictions on a party to carry out research and development with third parties, where such restriction is necessary to protect the licensor's know-how against disclosure. 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 research and development with third parties. Other safeguards may be equally appropriate.

Restrictions on the use of the licensee's own technology

(106) According to Article 4(1)(d) the licensee must also be unrestricted in the use of its own competing technology provided that in so doing it does not make use of the technology licensed from the licensor. In relation to its own technology the licensee must not be subject to limitations in terms of where it produces or sells, how much it produces or sells and at what price it sells. It must also not be obliged to pay royalties on products produced on the basis of its own technology (cf. paragraph (91) above). Moreover, the licensee must not be restricted in licensing its own technology to third parties. When restrictions are imposed on the licensee's use of its own technology or to carry out research and development, the competitiveness of the licensee's technology is reduced. The effect of this is to reduce competition on existing product and technology markets and to reduce the licensee's incentive to invest in the development and improvement of its technology. Article 4(1)(d) does not extend to restrictions on the licensee's use of third party technology which competes with the licensed technology. Although such non-compete obligations may have foreclosure effects on third party technology (cf section IV.2.7 below), they do not have the effect of reducing licensees' incentive to invest in the development and improvement of their own technology.

4.3. Agreements between non-competitors

(107) Article 4(2) lists the hardcore restrictions for licensing between non-competitors. According to this provision, the TTBER does not cover agreements which, directly or indirectly, in isolation or in combination with other factors under the control of the parties, have as their object any of the following:

(a) the restriction of a party's ability to determine its prices when selling products to third parties, without prejudice to the possibility to impose a maximum sale price or recommend a sale price, provided that it does not amount to a fixed or minimum sale price as a result of pressure from, or incentives offered by, any of the parties;

(b) the restriction of the territory into which, or of the customers to whom, the licensee may passively sell the contract products, except:

(i) the restriction of passive sales into an exclusive territory or to an exclusive customer group reserved for the licensor;

(ii) the obligation to produce the contract products only for its own use provided that the licensee is not restricted in selling the contract products actively and passively as spare parts for its own products;

(iii) the obligation to produce the contract products only for a particular customer, where the licence was granted in order to create an alternative source of supply for that customer;

(iv) the restriction of sales to end users by a licensee operating at the wholesale level of trade;

(v) the restriction of sales to unauthorised distributors by the members of a selective distribution system;

(c) the restriction of active or passive sales to end users by a licensee which is a member of a selective distribution system and which operates at the retail level, without prejudice to the possibility of prohibiting a member of the system from operating out of an unauthorised place of establishment.

Price fixing

(108) The hardcore restriction of competition set out in Article 4(2)(a) concerns the fixing of prices charged when selling products to third parties. More specifically, this provision covers restrictions which have as their direct or indirect object the establishment of a fixed or a minimum selling price or a fixed or minimum price level to be observed by the licensor or the licensee when selling products to third parties. In the case of agreements that directly establish the selling price, the restriction is clear-cut. However, the fixing of selling prices can also be achieved through indirect means. Examples of the latter are agreements fixing the margin, fixing the maximum level of discounts, linking the sales price to the sales prices of competitors, threats, intimidation, warnings, penalties, or contract terminations in relation to observance of a given price level. Direct or indirect means of achieving price fixing can be made more effective when combined with measures to identify price-cutting, such as the implementation of a price monitoring system, or the obligation on licensees to report price deviations. Similarly, direct or indirect price fixing can be made more effective when combined with measures that reduce the licensee's incentive to lower its selling price, such as the licensor obliging the licensee to apply a most-favoured-customer clause, that is to say, an obligation to grant to a customer any more favourable terms granted to any other customer. The same means can be used to make maximum or recommended prices work as fixed or

minimum selling prices. However, the provision of a list of recommended prices to or the imposition of a maximum price on the licensee by the licensor is not considered in itself as leading to fixed or minimum selling prices.

Restrictions on passive sales by the licensee

(109) Article 4(2)(b) identifies as hardcore restrictions of competition agreements or concerted practices that have as their direct or indirect object the restriction of passive sales[55] by licensees of products incorporating the licensed technology[56]. Passive sales restrictions on the licensee may be the result of direct obligations, such as the obligation not to sell to certain customers or to customers in certain territories or the obligation to refer orders from these customers to other licensees. It may also result from indirect measures aimed at inducing the licensee to refrain from making such sales, such as financial incentives and the implementation of a monitoring system aimed at verifying the effective destination of the licensed products. Quantity limitations may be an indirect means to restrict passive sales. The Commission will not assume that quantity limitations as such serve this purpose. However, it will be otherwise where quantity limitations are used to implement an underlying market partitioning agreement. Indications thereof include the adjustment of quantities over time to cover only local demand, the combination of quantity limitations and an obligation to sell minimum quantities in the territory, minimum royalty obligations linked to sales in the territory, differentiated royalty rates depending on the destination of the products and the monitoring of the destination of products sold by individual licensees. The general hardcore restriction covering passive sales by licensees is subject to a number of exceptions, which are dealt with below.

(110) Exception 1: Article 4(2)(b) does not cover sales restrictions on the licensor. All sales restrictions on the licensor are block exempted up to the market share threshold of 30 %. The same applies to all restrictions on active sales by the licensee, with the exception of what is said on active selling in paragraph (115) below. The block exemption of restrictions on active selling is based on the assumption that such restrictions promote investments, non-price competition and improvements in the quality of services provided by the licensees by solving free rider problems and hold-up problems. In the case of restrictions of active sales between licensees' territories or customer groups, it is not a condition that the protected licensee has been granted an exclusive territory or an exclusive customer group. The block exemption also applies to active sales restrictions where more than one licensee has been appointed for a particular territory or customer group. Efficiency enhancing investment is likely to be promoted where a licensee can be ensured that it will only face active sales competition from a limited number of licensees inside the territory and not also from licensees outside the territory.

---

55 For a definition of passive sales, see paragraph (98) and the Guidelines on vertical restraints cited in note 46, paragraph 51.

56 This hardcore restriction applies to technology transfer agreements concerning trade within the Union. In so far as technology transfer agreements concern exports outside the Union or imports/re-imports from outside the Union see judgment of the Court of Justice in Case C-306/96, *Javico v Yves Saint Laurent* [1998] ECR I-1983. In that judgment the ECJ held in paragraph 20 that "an agreement in which the reseller gives to the producer an undertaking that it will sell the contractual products on a market outside the Community cannot be regarded as having the object of appreciably restricting competition within the common market or as being capable of affecting, as such, trade between Member States".

(111) Exception 2: Restrictions on active and passive sales by licensees into an exclusive territory or to an exclusive customer group reserved for the licensor do not constitute hardcore restrictions of competition (cf. Article 4(2)(b)(i)). Indeed, they are block exempted. It is presumed that up to the market share threshold such restraints, where restrictive of competition, promote pro-competitive dissemination of technology and integration of such technology into the production assets of the licensee. For a territory or customer group to be reserved for the licensor, it is not required that the licensor is actually producing with the licensed technology in the territory or for the customer group in question. A territory or customer group can also be reserved by the licensor for later exploitation.

(112) Exception 3: Article 4(2)(b)(ii) brings under the block exemption a restriction whereby the licensee is obliged to produce products incorporating the licensed technology only for its own (captive) use. Where the contract product is a component the licensee can thus be obliged to use that product only for incorporation into its own products and can be obliged not to sell the product to other producers. The licensee must however be able to actively and passively sell the products as spare parts for its own products and must thus be able to supply third parties that perform after sale services on these products. Captive use restrictions are also dealt with in section IV.2.5 below.

(113) Exception 4: As in the case of agreements between competitors (cf. paragraph (104) above) the block exemption also applies to agreements whereby the licensee is obliged to produce the contract products only for a particular customer in order to provide that customer with an alternative source of supply, regardless of the duration of the licence agreement (cf. Article 4(2)(b)(iii)). In the case of agreements between non-competitors, such restrictions are unlikely to be caught by Article 101(1).

(114) Exception 5: Article 4(2)(b)(iv) brings under the block exemption an obligation on the licensee not to sell to end users and thus only to sell to retailers. Such an obligation allows the licensor to assign the wholesale distribution function to the licensee and normally falls outside Article 101(1)[57].

(115) Exception 6: Finally Article 4(2)(b)(v) brings under the block exemption a restriction on the licensee not to sell to unauthorised distributors. This exception allows the licensor to impose on the licensees an obligation to form part of a selective distribution system. In that case, however, the licensees must according to Article 4(2)(c) be permitted to sell both actively and passively to end users, without prejudice to the possibility to restrict the licensee to a wholesale function as foreseen in Article 4(2)(b)(iv) (cf. the previous paragraph). Within the territory where the licensor operates a selective distribution system, this system may not be combined with exclusive territories or exclusive customer groups as that would lead to a hardcore restriction of active or passive selling by the licensees under Article 4(2)(c), without prejudice to the possibility of prohibiting a licensee from operating out of an unauthorised place of establishment.

(116) Restrictions on passive sales by licensees into an exclusive territory or customer group allocated to another licensee, while normally a hardcore restriction, may fall outside Article 101(1) for a certain duration if the restraints are objectively necessary for the protected licensee to penetrate a new market. Such circumstances may be present where licensees have to commit substantial investments in production assets

[57] See in this respect Case 26/76, *Metro (I)*, [1977] ECR 1875.

and promotional activities in order to start up and develop a new market. The risks facing a new licensee may therefore be substantial, in particular since promotional expenses and investment in assets required to produce on the basis of a particular technology are often sunk, that is to say, that upon leaving that particular field of activity the investment cannot be used by the licensee for other activities or sold other than at a significant loss. For instance, the licensee may be the first to produce and sell a new type of product or the first to apply a new technology. In such circumstances, it is often the case that licensees would not enter into the licence agreement without protection for a certain period of time against (active and) passive sales into their territory or to their customer groups by other licensees. Where substantial investments by the licensee to start up and develop a new market are necessary, restrictions of passive sales by other licensees into such a territory or to such a customer group which are necessary for the licensee to recoup those investments generally fall outside Article 101(1) for a period of up to two years from the date on which the contract product was first put on the market in the exclusive territory by the licensee in question or sold to its exclusive customer group.

(117) Similarly, a prohibition imposed on all licensees not to sell to certain categories of end users may not be restrictive of competition if such a restraint is objectively necessary for reasons of safety or health related to the dangerous nature of the product in question.

5. EXCLUDED RESTRICTIONS

(118) Article 5 of the TTBER lists three types of restrictions that are not block exempted and which thus require individual assessment of their anti-competitive and pro-competitive effects. The purpose of Article 5 is to avoid block exemption of agreements that may reduce the incentive to innovate. It follows from Article 5 that the inclusion in a licence agreement of any of the restrictions contained in these provisions does not prevent the application of the block exemption to the rest of the agreement, if the remainder is severable from the excluded restriction(s). It is only the individual restriction in question that is not covered by the block exemption, implying that individual assessment is required.

Exclusive grant backs

(119) Article 5(1)(a) concerns exclusive grant backs or assignments to the licensor of improvements of the licensed technology. 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 its improvements, including by way of licensing to third parties. 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. According to Article 5(1)(a) such obligations are not covered by the block exemption.

(120) The application of Article 5(1)(a) does not depend on whether or not the licensor pays consideration in return for acquiring the improvement or for obtaining an exclusive licence. However, the existence and level of such consideration may be a relevant factor in the context of an individual assessment under Article 101. When grant backs are made against consideration it is less likely that the obligation creates a disincentive for the licensee to innovate. In the assessment of exclusive grant backs outside the scope of the block exemption the market position of the licensor on the

technology market is also a relevant factor. The stronger the position of the licensor, the more likely it is that exclusive grant back obligations will have restrictive effects on competition in innovation. The stronger the position of the licensor's technology the more important it is that the licensee can become an important source of innovation and future competition. The negative impact of grant back obligations can also be increased in case of parallel networks of licence agreements containing such obligations. When available technologies are controlled by a limited number of licensors that impose exclusive grant back obligations on licensees, the risk of anti-competitive effects is greater than where there are a number of technologies only some of which are licensed on exclusive grant back terms.

(121) The risk of negative effects on innovation is higher in the case of cross licensing between competitors where a grant back obligation on both parties is combined with an obligation on both parties to share with the other party improvements of its own technology. The sharing of all improvements between competitors may prevent each competitor from gaining a competitive lead over the other (see also paragraph (225) below). 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.

(122) Non-exclusive grant back obligations are covered by the safe harbour of the TTBER. This is so even if they are non-reciprocal, that is to say, only imposed on the licensee, and where under the agreement the licensor is entitled to feed-on the improvements to other licensees. A non-reciprocal grant back obligation may promote the dissemination of new technology by permitting the licensor to freely determine whether and to what extent to pass on its own improvements to its licensees. A feed-on clause may also promote the dissemination of technology because each licensee knows at the time of contracting that it will be on an equal footing with other licensees in terms of the technology on the basis of which it is producing.

Non-challenge and termination clauses

(123) The excluded restriction set out in Article 5(1)(b) concerns non-challenge clauses, that is to say, direct or indirect obligations not to challenge the validity of the licensor's intellectual property. The reason for excluding non-challenge clauses from the scope of the block exemption is the fact that licensees are normally in the best position to determine whether or not an intellectual property right is invalid. In the interest of undistorted competition and in conformity with the principles underlying the protection of intellectual property, invalid intellectual property rights should be eliminated. Invalid intellectual property stifles innovation rather than promoting it. Article 101(1) is likely to apply to non-challenge clauses where the licensed technology is valuable and therefore creates a competitive disadvantage for undertakings that are prevented from using it or are only able to use it against payment of royalties[58]. In such cases the conditions of Article 101(3) are unlikely to be fulfilled[59].

[58] If the licensed technology is outdated no restriction of competition arises, see in this respect Case 65/86, *Bayer v Süllhofer*, [1988] ECR 5249.

[59] As to non-challenge clauses in the context of settlement agreements see paragraph (226)-(227) below.

(124) A clause obliging the licensee not to challenge the ownership of the technology does generally not constitute a restriction of competition within the meaning of Article 101(1). Whether or not the licensor has the ownership of the technology, the use of it by the licensee and any other party is dependent on obtaining a licence in any event, and competition would thus generally not be affected[60].

(125) Article 5(1)(b) also excludes from the safe harbour of the TTBER the right for the licensor to terminate the agreement in the event that the licensee challenges the validity of any of the intellectual property rights that the licensor holds in the Union. Such a termination right can have the same effect as a non-challenge clause, in particular where the licensee has already incurred significant sunk costs for the production of the contract products or is already producing the contract products. In these cases, the licensee may be deterred from challenging the validity of the intellectual property right as it would risk the termination of the licensing agreement and thus face significant risks which go far beyond its royalty obligations. The interest of the licensor not to be forced to continue dealing with a licensee that challenges the very subject matter of the licence agreement has to be balanced against the public interest to eliminate any obstacle to economic activity which may arise where an intellectual property right was granted in error[61]. In balancing those interests it should be taken account of whether the licensee fulfils all the obligations under the agreement at the time of the challenge, in particular the obligation to pay the agreed royalties.

(126) However, the Commission takes a more favourable view of non-challenge and termination clauses relating to know-how where once disclosed it is likely to be impossible or very difficult to recover the licensed know-how. In such cases, an obligation on the licensee not to challenge the licensed know-how promotes dissemination of new technology, in particular by allowing weaker licensors to license stronger licensees without fear of a challenge once the know-how has been absorbed by the licensee. Therefore, non-challenge and termination clauses solely concerning know-how are not excluded from the scope of the TTBER.

Limiting the licensee's use or development of its own technology between non-competitors

(127) Article 5(2) excludes from the scope of the block exemption, in the case of agreements between non-competitors, any direct or indirect obligation limiting the licensee's ability to exploit its own technology or limiting the ability of the parties to the agreement to carry out research and development, unless such latter restriction is indispensable to prevent the disclosure of licensed know-how to third parties. The content of this condition is the same as that of Article 4(1)(d) of the hardcore list concerning agreements between competitors, which is dealt with in paragraphs (105) and (106) above. However, in the case of agreements between non-competitors it cannot be considered that such restrictions generally have negative effects on competition or that the conditions of Article 101(3) are generally not satisfied[62]. Individual assessment is required.

(128) In the case of agreements between non-competitors, the licensee normally does not own a competing technology. However, there may be cases where for the purposes of

60 Cf. in respect of challenging the ownership of a trademark Commission Decision in *Moosehead/Whitbread* (OJ L 100, 20.4.1990, p. 32).

61 Case 193/83 *Windsurfing International* [1986] ECR 611, paragraph 92.

62 See paragraph (14) above.

the block exemption the parties are considered non-competitors in spite of the fact that the licensee does own a competing technology. This is the case where the licensee owns a technology but does not license it and the licensor is not an actual or potential supplier on the product market. For the purposes of the block exemption the parties are in such circumstances neither competitors on the technology market nor competitors on the downstream product market[63]. In such cases it is important to ensure that the licensee is not restricted in his ability to exploit his own technology and further develop it. This technology constitutes a competitive constraint in the market, which should be preserved. In such a situation restrictions on the licensee's use of its own technology or on research and development are normally considered to be restrictive of competition and not to satisfy the conditions of Article 101(3). For instance, an obligation on the licensee to pay royalties not only on the basis of products it produces with the licensed technology but also on the basis of products it produces only with its own technology will generally limit the ability of the licensee to exploit its own technology and thus be excluded from the scope of the block exemption.

(129) In cases where the licensee does not own a competing technology or is not already developing such a technology, a restriction on the ability of the parties to carry out independent research and development may be restrictive of competition where only a few technologies are available. In that case the parties may be an important (potential) source of innovation in the market. This is particularly so where the parties possess the necessary assets and skills to carry out further research and development. In that case the conditions of Article 101(3) are unlikely to be fulfilled. In other cases where several technologies are available and where the parties do not possess special assets or skills, the restriction on research and development is likely to either fall outside Article 101(1) for lack of an appreciable restrictive effect or satisfy the conditions of Article 101(3). The restraint may promote the dissemination of new technology by assuring the licensor that the licence does not create a new competitor and by inducing the licensee to focus on the exploitation and development of the licensed technology. Moreover, Article 101(1) only applies where the agreement reduces the licensee's incentive to improve and exploit its own technology. This is for instance not likely to be the case where the licensor is entitled to terminate the licence agreement once the licensee commences to produce on the basis of its own competing technology. Such a right does not reduce the licensee's incentive to innovate, since the agreement can only be terminated when a commercially viable technology has been developed and products produced on the basis thereof are ready to be put on the market.

6. WITHDRAWAL AND DISAPPLICATION OF THE BLOCK EXEMPTION REGULATION

6.1. Withdrawal procedure

(130) According to Article 6 of the TTBER, the Commission and the competition authorities of the Member States may withdraw the benefit of the block exemption in respect of individual agreements that do not fulfil the conditions of Article 101(3). The power of the competition authorities of the Member States to withdraw the benefit of the block exemption is limited to cases where the relevant geographic market is no wider than the territory of the Member State in question.

[63] See paragraphs (31) above.

(131) The four conditions of Article 101(3) are cumulative and must all be fulfilled for the exception rule to be applicable[64]. The block exemption can therefore be withdrawn where a particular agreement fails one or more of the four conditions.

(132) Where the withdrawal procedure is applied, the withdrawing authority bears the burden of proving that the agreement falls within the scope of Article 101(1) and that the agreement does not satisfy all four conditions of Article 101(3). Given that withdrawal implies that the agreement in question restricts competition within the meaning of Article 101(1) and does not fulfil the conditions of Article 101(3), withdrawal is necessarily accompanied by a negative decision based on Articles 5, 7 or 9 of Regulation (EC) No 1/2003.

(133) According to Article 6 of the TTBER, withdrawal may in particular be warranted in the following circumstances:

(a) access of third parties' technologies to the market is restricted, for instance by the cumulative effect of parallel networks of similar restrictive agreements prohibiting licensees from using third party technology;

(b) access of potential licensees to the market is restricted, for instance by the cumulative effect of parallel networks of similar restrictive agreements preventing licensors from licensing to other licensees;

(c) without any objectively valid reason the parties refrain from exploiting the licensed technology.

(134) Articles 4 and 5 of the TTBER, containing the list of hardcore restrictions of competition and excluded restrictions, aim at ensuring that block exempted agreements do not reduce the incentive to innovate, do not delay the dissemination of technology, and do not unduly restrict competition between the licensor and licensee or between licensees. However, the list of hardcore restrictions and the list of excluded restrictions do not take into account all the possible impacts of licence agreements. In particular, the block exemption does not take account of any cumulative effect of similar restrictions contained in networks of licence agreements. Licence agreements may lead to foreclosure of third parties both at the level of the licensor and at the level of the licensee. Foreclosure of other licensors may stem from the cumulative effect of networks of licence agreements prohibiting the licensees from exploiting competing technologies, leading to the exclusion of other (potential) licensors. Foreclosure of licensors is likely to arise in cases where most of the undertakings on the market that could (efficiently) take a competing licence are prevented from doing so as a consequence of restrictive agreements and where potential licensees face relatively high barriers to entry. Foreclosure of other licensees may stem from the cumulative effect of licence agreements prohibiting licensors from licensing other licensees and thereby preventing potential licensees from gaining access to the necessary technology. The issue of foreclosure is examined in more detail in section IV.2.7 below. In addition, the Commission is likely to withdraw the benefit of the block exemption where a significant number of licensors of competing technologies in individual agreements impose on their licensees to extend to them more favourable conditions agreed with other licensors.

---

[64] See in this respect paragraph 42 of the Guidelines on the application of Article 81(3) of the Treaty, cited in note 3.

(135) The Commission is also likely to withdraw the benefit of the block exemption where the parties refrain from exploiting the licensed technology, unless they have an objective justification for doing so. Indeed, when the parties do not exploit the licensed technology, no efficiency enhancing activity takes place, in which case the very rationale of the block exemption disappears. However, exploitation does not need to take the form of an integration of assets. Exploitation also occurs where the licence creates design freedom for the licensee by allowing it to exploit its own technology without facing the risk of infringement claims by the licensor. In the case of licensing between competitors, the fact that the parties do not exploit the licensed technology may be an indication that the arrangement is a disguised cartel. For these reasons the Commission will examine very closely cases of non-exploitation.

6.2. Disapplication of the Block Exemption Regulation

(136) Article 7 of the TTBER enables the Commission to exclude from the scope of the TTBER, by means of regulation, parallel networks of similar agreements where these cover more than 50 % of a relevant market. Such a measure is not addressed to individual undertakings but concerns all undertakings whose agreements are defined in the regulation disapplying the TTBER.

(137) Whereas withdrawal of the benefit of the TTBER by the Commission under Article 6 implies the adoption of a decision under Articles 7 or 9 of Regulation 1/2003, the effect of a Commission disapplication regulation under Article 7 of the TTBER is merely to remove, in respect of the restraints and the markets concerned, the benefit of the TTBER and to restore the full application of Article 101(1) and (3). Following the adoption of a regulation declaring the TTBER inapplicable for a particular market in respect of agreements containing certain restraints, the criteria developed by the relevant case law of the Union Courts and by notices and previous decisions adopted by the Commission will give guidance on the application of Article 101 to individual agreements. Where appropriate, the Commission will take a decision in an individual case, which can provide guidance to all the undertakings operating on the market concerned.

(138) For the purpose of calculating the 50 % market coverage ratio, account must be taken of each individual network of licence agreements containing restraints, or combinations of restraints, producing similar effects on the market.

(139) Article 7 does not entail an obligation on the part of the Commission to act where the 50 % market-coverage ratio is exceeded. In general, disapplication is appropriate when it is likely that access to the relevant market or competition therein is appreciably restricted. In assessing the need to apply Article 7, the Commission will consider whether individual withdrawal would be a more appropriate remedy. This may depend, in particular, on the number of competing undertakings contributing to a cumulative effect on a market or the number of affected geographic markets within the Union.

(140) Any regulation adopted under Article 7 must clearly set out its scope. This means, first, that the Commission must define the relevant product and geographic market(s) and, secondly, that it must identify the type of licensing restraint in respect of which the TTBER will no longer apply. As regards the latter aspect, the Commission may modulate the scope of its regulation according to the competition concern which it intends to address. For instance, while all parallel networks of non-compete arrangements will be taken into account for the purpose of establishing the 50 % market coverage ratio, the Commission may nevertheless restrict the scope of the

disapplication regulation only to non-compete obligations exceeding a certain duration. Thus, agreements of a shorter duration or of a less restrictive nature might be left unaffected, due to the lesser degree of foreclosure attributable to such restraints. Where appropriate, the Commission may also provide guidance by specifying the market share level which, in the specific market context, may be regarded as insufficient to bring about a significant contribution by an individual undertaking to the cumulative effect. In general, when the market share of the products incorporating a technology licensed by an individual licensor does not exceed 5 %, the agreement or network of agreements covering that technology is not considered to contribute significantly to a cumulative foreclosure effect[65].

(141) The transitional period of not less than six months that the Commission will have to set under Article 7(2) should allow the undertakings concerned to adapt their agreements to take account of the regulation disapplying the TTBER.

(142) A regulation disapplying the TTBER will not affect the block exempted status of the agreements concerned for the period preceding its entry into force.

IV. APPLICATION OF ARTICLE 101(1) AND 101(3) OUTSIDE THE SCOPE OF THE BLOCK EXEMPTION REGULATION

1. THE GENERAL FRAMEWORK FOR ANALYSIS

(143) Agreements that fall outside the block exemption, for example because the market share thresholds are exceeded or the agreement involves more than two parties, are subject to individual assessment. Agreements that either do not restrict competition within the meaning of Article 101(1) or which fulfil the conditions of Article 101(3) are valid and enforceable. It is recalled that there is no presumption of illegality of agreements that fall outside the scope of the block exemption provided that they do not contain hardcore restrictions of competition. In particular, there is no presumption that Article 101(1) applies merely because the market share thresholds are exceeded. Individual assessment based on the principles described in these guidelines is required.

Safe harbour if there are sufficient independently controlled technologies

(144) In order to promote predictability beyond the application of the TTBER and to confine detailed analysis to cases that are likely to present real competition concerns, the Commission takes the view that outside the area of hardcore restrictions Article 101 is unlikely to be infringed where there are four or more independently controlled technologies in addition to the technologies controlled by the parties to the agreement that may be substitutable for the licensed technology at a comparable cost to the user. In assessing whether the technologies are sufficiently substitutable the relative commercial strength of the technologies in question must be taken into account. The competitive constraint imposed by a technology is limited if it does not constitute a commercially viable alternative to the licensed technology. For instance, if due to network effects in the market consumers have a strong preference for products incorporating the licensed technology, other technologies already on the market or likely to come to market within a reasonable period of time may not

[65] See in this respect paragraph 8 of the Commission Notice on agreements of minor importance, cited in note 19.

constitute a real alternative and may therefore impose only a limited competitive constraint.

(145) The fact that an agreement falls outside the safe harbour described in the previous paragraph does not imply that the agreement is caught by Article 101(1) and, if so, that the conditions of Article 101(3) are not satisfied. As for the market share safe harbour of the TTBER, this additional safe harbour merely creates a presumption that the agreement is not prohibited by Article 101. Outside the safe harbour individual assessment of the agreement based on the principles developed in these guidelines is required.

1.1. The relevant factors

(146) In the application of Article 101 to individual cases it is necessary to take due account of the way in which competition operates on the market in question. The following factors are particularly relevant in this respect:

(a) the nature of the agreement;

(b) the market position of the parties;

(c) the market position of competitors;

(d) the market position of buyers on the relevant markets;

(e) entry barriers;

(f) maturity of the market; and

(g) other factors.

The importance of individual factors may vary from case to case and depends on all other factors. For instance, a high market share of the parties is usually a good indicator of market power, but in the case of low entry barriers it may not be indicative of market power. It is therefore not possible to provide firm rules on the importance of the individual factors.

(147) Technology transfer agreements can take many shapes and forms. It is therefore important to analyse the nature of the agreement in terms of the competitive relationship between the parties and the restraints that it contains. In the latter regard it is necessary to go beyond the express terms of the agreement. The existence of implicit restraints may be derived from the way in which the agreement has been implemented by the parties and the incentives that they face.

(148) The market position of the parties provides an indication of the degree of market power, if any, possessed by the licensor, the licensee or both. The higher their market share the greater their market power is likely to be. This is particularly so where the market share reflects cost advantages or other competitive advantages vis-à-vis competitors. These competitive advantages may for instance result from being a first mover in the market, from holding essential patents or from having superior technology. However, market shares are always only one factor in assessing market positions. It must be taken into account that, in particular in the case of technology markets, market shares may not always be a good indicator of the relative strength of the technology in question and that the market share figures may differ considerably depending on the different calculation methods.

(149) As recognised by Article 3(2) of the TTBER, even where the licensor is not an actual or potential supplier on the product market and the licensee is not an actual or potential competitor on the technology market, it is relevant to the analysis whether

the licensee owns a competing technology, which is not being licensed. If such a licensee has a strong position on the product market, an agreement granting it an exclusive licence to a competing technology can restrict competition significantly compared to the situation where the licensor does not grant an exclusive licence or licences other undertakings.

(150) Market shares and possible competitive advantages and disadvantages are also used to assess the market position of competitors. The stronger the actual competitors and the greater their number the less risk there is that the parties will be able to individually exercise market power. However, if the number of competitors is rather small and their market position (size, costs, R&D potential, etc.) is rather similar, this market structure may increase the risk of collusion.

(151) The market position of buyers provides an indication of whether or not one or more buyers possess buyer power. The first indicator of buying power is the market share of the buyer on the purchase market. This share reflects the importance of its demand for possible suppliers. Other indicators focus on the position of the buyer on its resale market, including characteristics such as a wide geographic spread of its outlets, and its brand image amongst final consumers. In some circumstances buyer power may prevent the licensor and/or the licensee from exercising market power on the market and thereby solve a competition problem that would otherwise have existed. This is particularly so when strong buyers have the capacity and the incentive to bring new sources of supply on to the market in the case of a small but permanent increase in relative prices. Where the strong buyers merely extract favourable terms from the supplier or simply pass on any price increase to their customers, the position of the buyers is not such as to prevent the exercise of market power by the licensee on the product market and therefore not such as to solve the competition problem on that market[66].

(152) Entry barriers are measured by the extent to which incumbent companies can increase their price above the competitive level without attracting new entry. In the absence of entry barriers, easy and quick entry would render price increases unprofitable. When effective entry, preventing or eroding the exercise of market power, is likely to occur within one or two years, entry barriers can, as a general rule, be said to be low. Entry barriers may result from a wide variety of factors such as economies of scale and scope, government regulations, especially where they establish exclusive rights, state aid, import tariffs, intellectual property rights, ownership of resources where the supply is limited due to for instance natural limitations, essential facilities, a first mover advantage or brand loyalty of consumers created by strong advertising over a period of time. Restrictive agreements entered into by undertakings may also work as an entry barrier by making access more difficult and foreclosing (potential) competitors. Entry barriers may be present at all stages of the research and development, production and distribution process. The question whether certain of these factors should be described as entry barriers depends particularly on whether they entail sunk costs. Sunk costs are those costs which have to be incurred to enter or be active on a market but which are lost when the market is exited. The more costs are sunk, the more potential entrants have to weigh the risks of entering the market and the more credibly incumbents can threaten that they will match new competition, as sunk costs make it costly for incumbents to

[66] See in this respect Case T-228/97, *Irish Sugar*, [1999] ECR II-2969, paragraph 101.

leave the market. In general, entry requires sunk costs, sometimes minor and sometimes major. Therefore, actual competition is in general more effective and will weigh more heavily in the assessment of a case than potential competition.

(153) A mature market is a market that has existed for some time, where the technology used is well known and widespread and not changing very much and in which demand is relatively stable or declining. In such a market restrictions of competition are more likely to have negative effects than in more dynamic markets.

(154) In the assessment of particular restraints other factors may have to be taken into account. Such factors include cumulative effects, that is to say, the coverage of the market by similar agreements, the duration of the agreements, the regulatory environment and behaviour that may indicate or facilitate collusion like price leadership, pre-announced price changes and discussions on the «right» price, price rigidity in response to excess capacity, price discrimination and past collusive behaviour.

1.2. Negative effects of restrictive licence agreements

(155) The negative effects on competition on the market that may result from restrictive technology transfer agreements include the following:

(a) reduction of inter-technology competition between the companies operating on a technology market or on a market for products incorporating the technologies in question, including facilitation of collusion, both explicit and tacit;

(b) foreclosure of competitors by raising their costs, restricting their access to essential inputs or otherwise raising barriers to entry; and

(c) reduction of intra-technology competition between undertakings that produce products on the basis of the same technology.

(156) Technology transfer agreements may reduce inter-technology competition, that is to say, competition between undertakings that license or produce on the basis of substitutable technologies. This is particularly so where reciprocal obligations are imposed. For instance, where competitors transfer competing technologies to each other and impose a reciprocal obligation to provide each other with future improvements of their respective technologies and where this agreement prevents either competitor from gaining a technological lead over the other, competition in innovation between the parties is restricted (see also paragraph (225) below).

(157) Licensing between competitors may also facilitate collusion. The risk of collusion is particularly high in concentrated markets. Collusion requires that the undertakings concerned have similar views on what is in their common interest and on how the co-ordination mechanisms function. For collusion to work the undertakings must also be able to monitor each other's market behaviour and there must be adequate deterrents to ensure that there is an incentive not to depart from the common policy on the market, while entry barriers must be high enough to limit entry or expansion by outsiders. Agreements can facilitate collusion by increasing transparency in the market, by controlling certain behaviour and by raising barriers to entry. Collusion can also exceptionally be facilitated by licensing agreements that lead to a high

degree of commonality of costs, because undertakings that have similar costs are more likely to have similar views on the terms of coordination[67].

(158) Licence agreements may also affect inter-technology competition by creating barriers to entry for and expansion by competitors. Such foreclosure effects may stem from restraints that prevent licensees from licensing from third parties or create disincentives for them to do so. For instance, third parties may be foreclosed where incumbent licensors impose non-compete obligations on licensees to such an extent that an insufficient number of licensees are available to third parties and where entry at the level of licensees is difficult. Suppliers of substitutable technologies may also be foreclosed where a licensor with a sufficient degree of market power ties together various parts of a technology and licenses them together as a package while only part of the package is essential to produce a certain product.

(159) Licence agreements may also reduce intra-technology competition, that is to say, competition between undertakings that produce on the basis of the same technology. An agreement imposing territorial restraints on licensees, preventing them from selling into each other's territory reduces competition between them. Licence agreements may also reduce intra-technology competition by facilitating collusion between licensees. Moreover, licence agreements that reduce intra-technology competition may facilitate collusion between owners of competing technologies or reduce inter-technology competition by raising barriers to entry.

1.3. Positive effects of restrictive licence agreements and the framework for analysing such effects

(160) Even restrictive licence agreements mostly also produce pro-competitive effects in the form of efficiencies, which may outweigh their anti-competitive effects. This assessment takes place within the framework of Article 101(3), which contains an exception from the prohibition rule of Article 101(1). For this exception to be applicable the licence agreement must produce objective economic benefits, the restrictions on competition must be indispensable to attain the efficiencies, consumers must receive a fair share of the efficiency gains, and the agreement must not afford the parties the possibility of eliminating competition in respect of a substantial part of the products concerned.

(161) The assessment of restrictive agreements under Article 101(3) is made within the actual context in which they occur[68] and on the basis of the facts existing at any given point in time. The assessment is sensitive to material changes in the facts. The exception rule of Article 101(3) applies as long as the four conditions are fulfilled and ceases to apply when that is no longer the case[69]. However, when applying Article 101(3) in accordance with these principles it is necessary to take into account the initial sunk investments made by any of the parties and the time needed and the restraints required to commit and recoup an efficiency enhancing investment. Article 101 cannot be applied without considering the *ex ante* investment and the risks relating thereto. The risk facing the parties and the sunk investment that must be

[67] See in this respect paragraph 36 of the Guidelines on horizontal cooperation agreements, cited in note 26.

[68] See Joined Cases 25/84 and 26/84, *Ford*, [1985] ECR 2725.

[69] See in this respect for example Commission Decision in *TPS* (OJ L 90, 2.4.1999, p. 6). Similarly, the prohibition of Article 101(1) also only applies as long as the agreement has a restrictive object or restrictive effects.

committed to implement the agreement can thus lead to the agreement falling outside Article 101(1) or fulfilling the conditions of Article 101(3), as the case may be, for the period of time required to recoup the investment.

(162) The first condition of Article 101(3) requires an assessment of what are the objective benefits in terms of efficiencies produced by the agreement. In this respect, licence agreements have the potential of bringing together complementary technologies and other assets allowing new or improved products to be put on the market or existing products to be produced at lower cost. Outside the context of hardcore cartels, licensing often occurs because it is more efficient for the licensor to licence the technology than to exploit it himself. This may particularly be the case where the licensee already has access to the necessary production assets. The agreement allows the licensee to gain access to a technology that can be combined with these assets, allowing him to exploit new or improved technologies. Another example of potentially efficiency enhancing licensing is where the licensee already has a technology and where the combination of this technology and the licensor's technology gives rise to synergies. When the two technologies are combined the licensee may be able to attain a cost/output configuration that would not otherwise be possible. Licence agreements may also give rise to efficiencies at the distribution stage in the same way as vertical distribution agreements. Such efficiencies can take the form of cost savings or the provision of valuable services to consumers. The positive effects of vertical agreements are described in the Guidelines on Vertical Restraints[70]. A further example of possible efficiency gains is agreements whereby technology owners assemble a technology package for licensing to third parties. Such pooling arrangements may in particular reduce transaction costs, as licensees do not have to conclude separate licence agreements with each licensor. Pro-competitive licensing may also occur to ensure design freedom. In sectors where large numbers of intellectual property rights exist and where individual products may infringe upon a number of existing and future property rights, licence agreements whereby the parties agree not to assert their property rights against each other are often pro-competitive because they allow the parties to develop their respective technologies without the risk of subsequent infringement claims.

(163) In the application of the indispensability test contained in Article 101(3) the Commission will in particular examine whether individual restrictions make it possible to perform the activity in question more efficiently than would have been the case in the absence of the restriction concerned. In making this assessment the market conditions and the realities facing the parties must be taken into account. Undertakings invoking the benefit of Article 101(3) are not required to consider hypothetical and theoretical alternatives. They must, however, explain and demonstrate why seemingly realistic and significantly less restrictive alternatives would be significantly less efficient. If the application of what appears to be a commercially realistic and less restrictive alternative would lead to a significant loss of efficiencies, the restriction in question is treated as indispensable. In some cases, it may also be necessary to examine whether the agreement as such is indispensable to achieve the efficiencies. This may for example be so in the case of technology pools that include complementary but non-essential technologies[71], in which case it must be examined to what extent such inclusion gives rise to particular efficiencies or

70 Cited in note 46. See in particular paragraphs 106 *et seq*.
71 As to these concepts see section IV.4.1 below.

whether, without a significant loss of efficiencies, the pool could be limited to technologies for which there are no substitutes. In the case of simple licensing between two parties it is generally not necessary to go beyond an examination of the indispensability of individual restraints. Normally there is no less restrictive alternative to the licence agreement as such.

(164) The condition that consumers must receive a fair share of the benefits implies that consumers of the products produced under the licence must at least be compensated for the negative effects of the agreement[72]. This means that the efficiency gains must fully off-set the likely negative impact on prices, output and other relevant factors caused by the agreement. They may do so by changing the cost structure of the undertakings concerned, giving them an incentive to reduce price, or by allowing consumers to gain access to new or improved products, compensating for any likely price increase[73].

(165) The last condition of Article 101(3), according to which the agreement must not afford the parties the possibility of eliminating competition in respect of a substantial part of the products concerned, presupposes an analysis of remaining competitive pressures on the market and the impact of the agreement on such sources of competition. In the application of the last condition of Article 101(3) the relationship between Article 101(3) and Article 102 must be taken into account. According to settled case law, the application of Article 101(3) cannot prevent the application of Article 102 of the Treaty[74]. Moreover, since Articles 101 and 102 both pursue the aim of maintaining effective competition on the market, consistency requires that Article 101(3) be interpreted as precluding any application of the exception rule to restrictive agreements that constitute an abuse of a dominant position[75].

(166) The fact that the agreement substantially reduces one dimension of competition does not necessarily mean that competition is eliminated within the meaning of Article 101(3). A technology pool, for instance, can result in an industry standard, leading to a situation in which there is little competition in terms of the technological format. Once the main players in the market adopt a certain format, network effects may make it very difficult for alternative formats to survive. This does not imply, however, that the creation of a de facto industry standard always eliminates competition within the meaning of the last condition of Article 101(3). Within the standard, suppliers may compete on price, quality and product features. However, in order for the agreement to comply with Article 101(3), it must be ensured that the agreement does not unduly restrict competition and does not unduly restrict future innovation.

[72] See paragraph 85 of the Guidelines on the application of Article 81(3) of the Treaty, cited in note 3.

[73] Idem, paragraphs 98 and 102.

[74] See paragraph 130 of the judgment cited in note 3. Similarly, the application of Article 101(3) does not prevent the application of the Treaty rules on the free movement of goods, services, persons and capital. These provisions are in certain circumstances applicable to agreements, decisions and concerted practices within the meaning of Article 101(1), see to that effect Case C-309/99, *Wouters*, [2002] ECR I-1577, paragraph 120.

[75] See in this respect Case T-51/89, *Tetra Pak* (I), [1990] ECR II-309. See also paragraph 106 of the Guidelines on the application of Article 81(3) of the Treaty cited in note 3 above.

2. APPLICATION OF ARTICLE 101 TO VARIOUS TYPES OF LICENSING RESTRAINTS

(167) This section deals with various types of restraints that are commonly included in licence agreements. Given their prevalence it is useful to provide guidance as to how they are assessed outside the safe harbour of the TTBER. Restraints that have already been dealt with in the preceding parts of these guidelines, in particular sections III.4 and III.5, are only dealt with briefly in the present section.

(168) This section covers both agreements between non-competitors and agreements between competitors. In respect of the latter a distinction is made — where appropriate — between reciprocal and non-reciprocal agreements. No such distinction is required in the case of agreements between non-competitors. When undertakings are neither actual nor potential competitors on a relevant technology market or on a market for products incorporating the licensed technology, a reciprocal licence is for all practical purposes no different from two separate licences. Arrangements whereby the parties assemble a technology package, which is then licensed to third parties, are technology pools, which are dealt with in section 4 below.

(169) This section does not deal with obligations in licence agreements that are generally not restrictive of competition within the meaning of Article 101(1). These obligations include but are not limited to:

(a) confidentiality obligations;

(b) obligations on licensees not to sub-license;

(c) obligations not to use the licensed technology after the expiry of the agreement, provided that the licensed technology remains valid and in force;

(d) obligations to assist the licensor in enforcing the licensed intellectual property rights;

(e) obligations to pay minimum royalties or to produce a minimum quantity of products incorporating the licensed technology; and

(f) obligations to use the licensor's trade mark or indicate the name of the licensor on the product.

2.1. Royalty obligations

(170) The parties to a licence agreement are normally free to determine the royalty payable by the licensee and its mode of payment without being caught by Article 101(1). This principle applies both to agreements between competitors and agreements between non-competitors. Royalty obligations may for instance take the form of lump sum payments, a percentage of the selling price or a fixed amount for each product incorporating the licensed technology. In cases where the licensed technology relates to an input which is incorporated into a final product it is as a general rule not restrictive of competition that royalties are calculated on the basis of the price of the final product, provided that it incorporates the licensed technology[76]. In the case of software licensing royalties based on the number of users and royalties calculated on a per machine basis are generally compatible with Article 101(1).

[76] This is without prejudice to the possible application of Article 102 TFEU to the setting of royalties (see Case 27/76, United Brands, paragraph 250, see also Case C-385/07 P, Der Grüne Punkt – Duales System Deutschland GmbH [2009] ECR I-6155, paragraph 142).

(171) In the case of licence agreements between competitors it is recalled, see paragraphs (90) to (91) and (106) above, that in a limited number of circumstances royalty obligations may amount to price fixing, which is a hardcore restriction (cf. Article 4(1)(a)). It is a hardcore restriction under Article 4(1)(a) if competitors provide for reciprocal running royalties in circumstances where the licence is a sham, in that its purpose is not to allow an integration of complementary technologies or to achieve another pro-competitive aim. It is also a hardcore restriction under Article 4(1)(a) and 4(1)(d) if royalties extend to products produced solely with the licensee's own technology.

(172) Other types of royalty arrangements between competitors are block exempted up to the market share threshold of 20 % even if they restrict competition. Outside the safe harbour of the block exemption Article 101(1) may be applicable where competitors cross license and impose running royalties that are clearly disproportionate compared to the market value of the licence and where such royalties have a significant impact on market prices. In assessing whether the royalties are disproportionate it is relevant to have regard to the royalties paid by other licensees on the product market for the same or substitute technologies. In such cases it is unlikely that the conditions of Article 101(3) are satisfied.

(173) Notwithstanding the fact that the block exemption only applies as long as the technology is valid and in force, the parties can normally agree to extend royalty obligations beyond the period of validity of the licensed intellectual property rights without falling foul of Article 101(1). Once these rights expire, third parties can legally exploit the technology in question and compete with the parties to the agreement. Such actual and potential competition will normally suffice to ensure that the obligation in question does not have appreciable anti-competitive effects.

(174) In the case of agreements between non-competitors the block exemption covers agreements whereby royalties are calculated on the basis of both products produced with the licensed technology and products produced with technologies licensed from third parties. Such arrangements may facilitate the metering of royalties. However, they may also lead to foreclosure by increasing the cost of using third party inputs and may thus have similar effects as a non-compete obligation. If royalties are paid not just on products produced with the licensed technology but also on products produced with third party technology, then the royalties will increase the cost of the latter products and reduce demand for third party technology. Outside the scope of the block exemption it must therefore be examined whether the restriction has foreclosure effects. For that purpose it is appropriate to use the analytical framework set out in section IV.2.7 below. In the case of appreciable foreclosure effects such agreements are caught by Article 101(1) and unlikely to fulfil the conditions of Article 101(3), unless there is no other practical way of calculating and monitoring royalty payments.

2.2. Exclusive licensing and sales restrictions

(175) For the present purposes it is useful to distinguish between restrictions as to production within a given territory (exclusive or sole licences) and restrictions on the sale of products incorporating the licensed technology into a given territory and to a given customer group (sales restrictions).

2.2.1. Exclusive and sole licences

(176) A licence is deemed to be exclusive if the licensee is the only one who is permitted to produce on the basis of the licensed technology within a given territory. The licensor thus undertakes not to produce itself or license others to produce within a given territory. This territory may cover the whole world. Where the licensor undertakes only not to licence third parties to produce within a given territory, the licence is a sole licence. Often exclusive or sole licensing is accompanied by sales restrictions that limit the parties in where they may sell products incorporating the licensed technology.

(177) Reciprocal exclusive licensing between competitors falls under Article 4(1)(c), which identifies market and customer sharing between competitors as a hardcore restriction. Reciprocal sole licensing between competitors is block exempted up to the market share threshold of 20 %. Under such an agreement the parties mutually commit not to license their competing technologies to third parties. In cases where the parties have a significant degree of market power such agreements may facilitate collusion by ensuring that the parties are the only sources of output in the market based on the licensed technologies.

(178) Non-reciprocal exclusive licensing between competitors is block exempted up to the market share threshold of 20 %. Above the market share threshold it is necessary to analyse what are the likely anti-competitive effects of such exclusive licensing. Where the exclusive licence is world-wide it implies that the licensor leaves the market. In cases where exclusivity is limited to a particular territory such as a Member State the agreement implies that the licensor abstains from producing goods and services inside the territory in question. In the context of Article 101(1) it must in particular be assessed what is the competitive significance of the licensor. If the licensor has a limited market position on the product market or lacks the capacity to effectively exploit the technology in the licensee's territory, the agreement is unlikely to be caught by Article 101(1). A special case is where the licensor and the licensee only compete on the technology market and the licensor, for instance being a research institute or a small research based undertaking, lacks the production and distribution assets to effectively bring to market products incorporating the licensed technology. In such cases Article 101(1) is unlikely to be infringed.

(179) Exclusive licensing between non-competitors — to the extent that it is caught by Article 101(1)[77] — is likely to fulfil the conditions of Article 101(3). The right to grant an exclusive licence is generally necessary in order to induce the licensee to invest in the licensed technology and to bring the products to market in a timely manner. This is in particular the case where the licensee must make large investments in further developing the licensed technology. To intervene against the exclusivity once the licensee has made a commercial success of the licensed technology would deprive the licensee of the fruits of his success and would be detrimental to competition, the dissemination of technology and innovation. The Commission will therefore only exceptionally intervene against exclusive licensing in agreements between non-competitors, irrespective of the territorial scope of the licence.

(180) The main situation in which intervention may be warranted is where a dominant licensee obtains an exclusive licence to one or more competing technologies. Such

[77] See the judgment in *Nungesser* cited in note 13.

agreements are likely to be caught by Article 101(1) and unlikely to fulfil the conditions of Article 101(3). It is a condition however that entry into the technology market is difficult and the licensed technology constitutes a real source of competition on the market. In such circumstances an exclusive licence may foreclose third party licensees and allow the licensee to preserve his market power.

(181) Arrangements whereby two or more parties cross licence each other and undertake not to licence third parties give rise to particular concerns when the package of technologies resulting from the cross licences creates a de facto industry standard to which third parties must have access in order to compete effectively on the market. In such cases the agreement creates a closed standard reserved for the parties. The Commission will assess such arrangements according to the same principles as those applied to technology pools (see section IV.4 below). It will normally be required that the technologies which support such a standard be licensed to third parties on fair, reasonable and non-discriminatory terms[78]. Where the parties to the arrangement compete with third parties on an existing product market and the arrangement relates to that product market a closed standard is likely to have substantial exclusionary effects. This negative impact on competition can only be avoided by licensing also to third parties.

2.2.2. Sales restrictions

(182) Also as regards sales restrictions there is an important distinction to be made between licensing between competitors and between non-competitors.

(183) Restrictions on active and passive sales by one or both parties in a reciprocal agreement between competitors are hardcore restrictions of competition under Article 4(1)(c). Sales restrictions on either party in a reciprocal agreement between competitors are caught by Article 101(1) and are unlikely to fulfil the conditions of Article 101(3). Such restrictions are generally considered market sharing, since they prevent the affected party from selling actively and passively into territories and to customer groups which he actually served or could realistically have served in the absence of the agreement.

(184) In the case of non-reciprocal agreements between competitors the block exemption applies to restrictions on active and passive sales by the licensee or the licensor into the exclusive territory or to the exclusive customer group reserved for the other party (cf. Article 4(1)(c)(iv). Above the market share threshold of 20 % sales restrictions between licensor and licensee are caught by Article 101(1) when one or both of the parties have a significant degree of market power. Such restrictions, however, may be indispensable for the dissemination of valuable technologies and therefore fulfil the conditions of Article 101(3). This may be the case where the licensor has a relatively weak market position in the territory where it exploits itself the technology. In such circumstances restrictions on active sales in particular may be indispensable to induce the licensor to grant the licence. In the absence thereof the licensor would risk facing active competition in its main area of activity. Similarly, restrictions on active sales by the licensor may be indispensable, in particular, where the licensee has a relatively weak market position in the territory allocated to it and has to make significant investments in order to efficiently exploit the licensed technology.

78 See in this respect the Commission's Notice in the Canon/Kodak Case (OJ C 330, 1.11.1997, p. 10) and the IGR Stereo Television Case mentioned in the XI Report on Competition Policy, paragraph 94.

(185) The block exemption also covers restrictions on active sales into the territory or to the customer group allocated to another licensee, who was not a competitor of the licensor at the time when he concluded the licence agreement with the licensor. It is a condition, however, that the agreement between the parties in question is non-reciprocal. Above the market share threshold such active sales restrictions are likely to be caught by Article 101(1) when the parties have a significant degree of market power. However, the restraint is likely to be indispensable within the meaning of Article 101(3) for the period of time required for the protected licensee to penetrate a new market and establish a market presence in the allocated territory or vis-à-vis the allocated customer group. This protection against active sales allows the licensee to overcome the asymmetry, which he faces due to the fact that some of the licensees are competing undertakings of the licensor and thus already established on the market. Restrictions on passive sales by licensees into a territory or to a customer group allocated to another licensee are hardcore restrictions under Article 4(1)(c) of the TTBER.

(186) In the case of agreements between non-competitors sales restrictions between the licensor and a licensee are block exempted up to the market share threshold of 30 %. Above the market share threshold restrictions on active and passive sales by licensees to territories or customer groups reserved for the licensor may be indispensable for the dissemination of valuable technologies and therefore fulfil the conditions of Article 101(3). This may be the case where the licensor has a relatively weak market position in the territory where it exploits itself the technology. In such circumstances restrictions on active sales in particular may be indispensable to induce the licensor to grant the licence. In the absence thereof the licensor would risk facing active competition in its main area of activity. In other cases sales restrictions on the licensee may be caught by Article 101(1) and may not fulfil the conditions of Article 101(3), both where the licensor individually has a significant degree of market power and in the case of a cumulative effect of similar agreements concluded by licensors which together hold a strong position on the market.

(187) Sales restrictions on the licensor, when caught by Article 101(1), are likely to fulfil the conditions of Article 101(3) unless there are no real alternatives to the licensor's technology on the market or such alternatives are licensed by the licensee from third parties. Such restrictions and in particular restrictions on active sales are likely to be indispensable within the meaning of Article 101(3) in order to induce the licensee to invest in the production, marketing and sale of the products incorporating the licensed technology. It is likely that the licensee's incentive to invest would be significantly reduced if he would face direct competition from the licensor whose production costs are not burdened by royalty payments, possibly leading to sub-optimal levels of investment.

(188) As regards restrictions on sales between licensees in agreements between non-competitors, the TTBER block exempts restrictions on active selling between territories or customer groups. Above the market share threshold restrictions on active sales between licensees' territories and customer groups limit intra-technology competition and are likely to be caught by Article 101(1) when the individual licensee has a significant degree of market power. Such restrictions, however, may fulfil the conditions of Article 101(3) where they are necessary to prevent free riding and to induce the licensee to make the investment necessary for efficient exploitation of the licensed technology inside his territory and to promote sales of the licensed

product. Restrictions on passive sales are covered by the hardcore list of Article 4(2)(b) of the TTBER (see paragraphs (109)-(117) above).

2.3. Output restrictions

(189) Reciprocal output restrictions in licence agreements between competitors constitute a hardcore restriction covered by Article 4(1)(b) of the TTBER (cf. paragraph (93) above). Article 4(1)(b) does not cover output restrictions on the licensor's technology imposed on the licensee in a non-reciprocal agreement or on one of the licensees in an reciprocal agreement. Such restrictions are block exempted up to the market share threshold of 20 %. Above the market share threshold, output restrictions on the licensee may restrict competition where the parties have a significant degree of market power. However, Article 101(3) is likely to apply in cases where the licensor's technology is substantially better than the licensee's technology and the output limitation substantially exceeds the output of the licensee prior to the conclusion of the agreement. In that case the effect of the output limitation is limited even in markets where demand is growing. In the application of Article 101(3) it must also be taken into account that such restrictions may be necessary in order to induce the licensor to disseminate its technology as widely as possible. For instance, a licensor may be reluctant to license its competitors if it cannot limit the licence to a particular production site with a specific capacity (a site licence). Where the licence agreement leads to a real integration of complementary assets, output restrictions on the licensee may therefore fulfil the conditions of Article 101(3). However, this is unlikely to be the case where the parties have substantial market power.

(190) Output restrictions in licence agreements between non-competitors are block exempted up to the market share threshold of 30 %. The main anti-competitive risk flowing from output restrictions on licensees in agreements between non-competitors is reduced intra-technology competition between licensees. The significance of such anti-competitive effects depends on the market position of the licensor and the licensees and the extent to which the output limitation prevents the licensee from satisfying demand for the products incorporating the licensed technology.

(191) When output restrictions are combined with exclusive territories or exclusive customer groups, the restrictive effects are increased. The combination of the two types of restraints makes it more likely that the agreement serves to partition markets.

(192) Output limitations imposed on the licensee in agreements between non-competitors may also have pro-competitive effects by promoting the dissemination of technology. As a supplier of technology, the licensor should normally be free to determine the output produced with the licensed technology by the licensee. If the licensor were not free to determine the output of the licensee, a number of licence agreements might not come into existence in the first place, which would have a negative impact on the dissemination of new technology. This is particularly likely to be the case where the licensor is also a producer, since in that case the output of the licensees may find their way back into the licensor's main area of operation and thus have a direct impact on these activities. On the other hand, it is less likely that output restrictions are necessary in order to ensure dissemination of the licensor's technology when combined with sales restrictions on the licensee prohibiting it from selling into a territory or customer group reserved for the licensor.

2.4. Field of use restrictions

(193) Under a field of use restriction the licence is either limited to one or more technical fields of application or one or more product markets or industrial sectors. An industrial sector may encompass several product markets but not part of a product market. There are many cases in which the same technology can be used to make different products or can be incorporated into products belonging to different product markets. A new moulding technology may for instance be used to make plastic bottles and plastic glasses, each product belonging to separate product markets. However, a single product market may encompass several technical fields of use. For instance a new engine technology may be employed in four cylinder engines and six cylinder engines. Similarly, a technology to make chipsets may be used to produce chipsets with up to four CPUs and more than four CPUs. A licence limiting the use of the licensed technology to produce say four cylinder engines and chipsets with up to four CPUs constitutes a technical field of use restriction.

(194) Given that field of use restrictions are covered by the block exemption and that certain customer restrictions are hardcore restrictions under Articles 4(1)(c) and 4(2)(b) of the TTBER, it is important to distinguish the two categories of restraints. A customer restriction presupposes that specific customer groups are identified and that the parties are restricted in selling to such identified groups. The fact that a technical field of use restriction may correspond to certain groups of customers within a product market does not imply that the restraint is to be classified as a customer restriction. For instance, the fact that certain customers buy predominantly or exclusively chipsets with more than four CPUs does not imply that a licence which is limited to chipsets with up to four CPUs constitutes a customer restriction. However, the field of use must be defined objectively by reference to identified and meaningful technical characteristics of the contract product.

(195) Given that field of use restrictions are covered by the block exemption and that certain output restrictions are hardcore restrictions under Article 4(1)(b) of the TTBER, it is also important to note that field of use restrictions are not considered to also be output restrictions because a field of use restriction does not limit the output the licensee may produce within the licensed field of use.

(196) A field of use restriction limits the exploitation of the licensed technology by the licensee to one or more particular fields of use without limiting the licensor's ability to exploit the licensed technology. In addition, as with territories, these fields of use can be allocated to the licensee under an exclusive or sole licence. Field of use restrictions combined with an exclusive or sole licence also restrict the licensor's ability to exploit its own technology, by preventing him from exploiting it itself, including by way of licensing to others. In the case of a sole license only licensing to third parties is restricted. Field of use restrictions combined with exclusive and sole licences are treated in the same way as the exclusive and sole licenses dealt with in section IV.2.2 above. In particular, for licensing between competitors, this means that reciprocal exclusive licensing is hardcore under Article 4(1)(c).

(197) Field of use restrictions may have pro-competitive effects by encouraging the licensor to license its technology for applications that fall outside its main area of focus. If the licensor could not prevent licensees from operating in fields where it exploits the technology itself or in fields where the value of the technology is not yet well established, it would be likely to create a disincentive for the licensor to license or would lead it to charge a higher royalty. It must also be taken into account that in

certain sectors licensing often occurs to ensure design freedom by preventing infringement claims. Within the scope of the licence the licensee is able to develop its own technology without fearing infringement claims by the licensor.

(198) Field of use restrictions on licensees in agreements between actual or potential competitors are block exempted up to the market share threshold of 20 %. The main competitive concern in the case of such restrictions is the risk that the licensee ceases to be a competitive force outside the licensed field of use. This risk is greater in the case of cross licensing between competitors where the agreement provides for asymmetrical field of use restrictions. A field of use restriction is asymmetrical where one party is permitted to use the licensed technology within one industrial sector, product market or technical field of use and the other party is permitted to use the other licensed technology within another industrial sector, product market or technical field of use. Competition concerns may in particular arise where the licensee's production facility, which is tooled up to use the licensed technology, is also used to produce with its own technology products outside the licensed field of use. If the agreement is likely to lead the licensee to reduce output outside the licensed field of use, the agreement is likely to be caught by Article 101(1). Symmetrical field of use restrictions, that is to say, agreements whereby the parties are licensed to use each other's technologies within the same field(s) of use, are unlikely to be caught by Article 101(1). Such agreements are unlikely to restrict competition that existed in the absence of the agreement. Article 101(1) is also unlikely to apply in the case of agreements that merely enable the licensee to develop and exploit its own technology within the scope of the licence without fearing infringement claims by the licensor. In such circumstances field of use restrictions do not in themselves restrict competition that existed in the absence of the agreement. In the absence of the agreement the licensee also risked infringement claims outside the scope of the licensed field of use. However, if the licensee without business justification terminates or scales back its activities in the area outside the licensed field of use this may be an indication of an underlying market sharing arrangement amounting to a hardcore restriction under Article 4(1)(c) of the TTBER.

(199) Field of use restrictions on licensee and licensor in agreements between non-competitors are block exempted up to the market share threshold of 30 %. Field of use restrictions in agreements between non-competitors whereby the licensor reserves one or more product markets or technical fields of use for itself are generally either non-restrictive of competition or efficiency enhancing. They promote dissemination of new technology by giving the licensor an incentive to license for exploitation in fields in which it does not want to exploit the technology itself. If the licensor could not prevent licensees from operating in fields where the licensor exploits the technology itself, it would be likely to create a disincentive for the licensor to licence.

(200) In agreements between non-competitors the licensor is normally also entitled to grant sole or exclusive licences to different licensees limited to one or more fields of use. Such restrictions limit intra-technology competition between licensees in the same way as exclusive licensing and are analysed in the same way (cf. section 2.2.1 above).

2.5. Captive use restrictions

(201) A captive use restriction can be defined as an obligation on the licensee to limit its production of the licensed product to the quantities required for the production of its

own products and for the maintenance and repair of its own products. In other words, this type of use restriction takes the form of an obligation on the licensee to use the products incorporating the licensed technology only as an input for incorporation into its own production; it does not cover the sale of the licensed product for incorporation into the products of other producers. Captive use restrictions are block exempted up to the respective market share thresholds of 20 % and 30 %. Outside the scope of the block exemption it is necessary to examine what are the pro-competitive and anti-competitive effects of the restraint. In this respect it is necessary to distinguish agreements between competitors from agreements between non-competitors.

(202) In the case of licence agreements between competitors a restriction that imposes on the licensee to produce under the licence only for incorporation into its own products prevents it from being a supplier of components to third party producers. If prior to the conclusion of the agreement, the licensee was not an actual or likely potential supplier of components to other producers, the captive use restriction does not change anything compared to the pre-existing situation. In those circumstances the restriction is assessed in the same way as in the case of agreements between non-competitors. If, on the other hand, the licensee is an actual or likely component supplier, it is necessary to examine what is the impact of the agreement on this activity. If by tooling up to use the licensor's technology the licensee ceases to use its own technology on a stand alone basis and thus to be a component supplier, the agreement restricts competition that existed prior to the agreement. It may result in serious negative market effects when the licensor has a significant degree of market power on the component market.

(203) In the case of licence agreements between non-competitors there are two main competitive risks stemming from captive use restrictions: (a) a restriction of intra-technology competition on the market for the supply of inputs and (b) an exclusion of arbitrage between licensees enhancing the possibility for the licensor to impose discriminatory royalties on licensees.

(204) Captive use restrictions, however, may also promote pro-competitive licensing. If the licensor is a supplier of components, the restraint may be necessary in order for the dissemination of technology between non-competitors to occur. In the absence of the restraint the licensor may not grant the licence or may do so only against higher royalties, because otherwise it would create direct competition with itself on the component market. In such cases a captive use restriction is normally either not restrictive of competition or covered by Article 101(3). It is a condition, however, that the licensee is not restricted in selling the licensed product as replacement parts for its own products. The licensee must be able to serve the after-market for its own products, including independent service organisations that service and repair the products produced by him.

(205) Where the licensor is not a component supplier on the relevant product market, the above reason for imposing captive use restrictions does not apply. In such cases a captive use restriction may in principle promote the dissemination of technology by ensuring that licensees do not sell to producers that compete with the licensor on other product markets. However, a restriction on the licensee not to sell into certain customer groups reserved for the licensor normally constitutes a less restrictive alternative. Consequently, in such cases a captive use restriction is normally not necessary for the dissemination of technology to take place.

2.6. Tying and bundling

(206) In the context of technology licensing tying occurs when the licensor makes the licensing of one technology (the tying product) conditional upon the licensee taking a licence for another technology or purchasing a product from the licensor or someone designated by it (the tied product). Bundling occurs where two technologies or a technology and a product are only sold together as a bundle. In both cases, however, it is a condition that the products and technologies involved are distinct in the sense that there is distinct demand for each of the products and technologies forming part of the tie or the bundle. This is normally not the case where the technologies or products are by necessity linked in such a way that the licensed technology cannot be exploited without the tied product or both parts of the bundle cannot be exploited without the other. In the following the term «tying» refers to both tying and bundling.

(207) Article 3 of the TTBER, which limits the application of the block exemption by market share thresholds, ensures that tying and bundling are not block exempted above the market share thresholds of 20 % in the case of agreements between competitors and 30 % in the case of agreements between non-competitors. The market share thresholds apply to any relevant technology or product market affected by the licence agreement, including the market for the tied product. Above the market share thresholds it is necessary to balance the anti-competitive and pro-competitive effects of tying.

(208) The main restrictive effect of tying is foreclosure of competing suppliers of the tied product. Tying may also allow the licensor to maintain market power in the market for the tying product by raising barriers to entry since it may force new entrants to enter several markets at the same time. Moreover, tying may allow the licensor to increase royalties, in particular when the tying product and the tied product are partly substitutable and the two products are not used in fixed proportion. Tying prevents the licensee from switching to substitute inputs in the face of increased royalties for the tying product. These competition concerns are independent of whether the parties to the agreement are competitors or not. For tying to produce likely anti-competitive effects the licensor must have a significant degree of market power in the tying product so as to restrict competition in the tied product. In the absence of market power in the tying product the licensor cannot use its technology for the anti-competitive purpose of foreclosing suppliers of the tied product. Furthermore, as in the case of non-compete obligations, the tie must cover a certain proportion of the market for the tied product for appreciable foreclosure effects to occur. In cases where the licensor has market power on the market for the tied product rather than on the market for the tying product, the restraint is analysed as non-compete or quantity forcing, reflecting the fact that any competition problem has its origin on the market for the «tied» product and not on the market for the «tying» product[79].

(209) Tying can also give rise to efficiency gains. This is for instance the case where the tied product is necessary for a technically satisfactory exploitation of the licensed technology or for ensuring that production under the licence conforms to quality standards respected by the licensor and other licensees. In such cases tying is normally either not restrictive of competition or covered by Article 101(3). Where

[79] For the applicable analytical framework see section IV.2.7 below and paragraphs 129 *et seq.* of the Guidelines on Vertical Restraints cited in note 46.

the licensees use the licensor's trademark or brand name or where it is otherwise obvious to consumers that there is a link between the product incorporating the licensed technology and the licensor, the licensor has a legitimate interest in ensuring that the quality of the products are such that it does not undermine the value of its technology or its reputation as an economic operator. Moreover, where it is known to consumers that the licensees (and the licensor) produce on the basis of the same technology it is unlikely that licensees would be willing to take a licence unless the technology is exploited by all in a technically satisfactory way.

(210) Tying is also likely to be pro-competitive where the tied product allows the licensee to exploit the licensed technology significantly more efficiently. For instance, where the licensor licenses a particular process technology the parties can also agree that the licensee buys a catalyst from the licensor which is developed for use with the licensed technology and which allows the technology to be exploited more efficiently than in the case of other catalysts. Where in such cases the restriction is caught by Article 101(1), the conditions of Article 101(3) are likely to be fulfilled even above the market share thresholds.

2.7. Non-compete obligations

(211) Non-compete obligations in the context of technology licensing take the form of an obligation on the licensee not to use third party technologies which compete with the licensed technology. To the extent that a non-compete obligation covers a product or additional technology supplied by the licensor the obligation is dealt with in the preceding section on tying.

(212) The TTBER exempts non-compete obligations both in the case of agreements between competitors and in the case of agreements between non-competitors up to the market share thresholds of 20 % and 30 % respectively.

(213) The main competitive risk presented by non-compete obligations is foreclosure of third party technologies. Non-compete obligations may also facilitate collusion between licensors in the case of cumulative use. Foreclosure of competing technologies reduces competitive pressure on royalties charged by the licensor and reduces competition between the incumbent technologies by limiting the possibilities for licensees to substitute between competing technologies. As in both cases the main problem is foreclosure, the analysis can in general be the same in the case of agreements between competitors and agreements between non-competitors. However, in the case of cross licensing between competitors where both agree not to use third party technologies the agreement may facilitate collusion between them on the product market, thereby justifying the lower market share threshold of 20 %.

(214) Foreclosure may arise where a substantial part of potential licensees are already tied to one or, in the case of cumulative effects, more sources of technology and are prevented from exploiting competing technologies. Foreclosure effects may result from agreements concluded by a single licensor with a significant degree of market power or by a cumulative effect of agreements concluded by several licensors, even where each individual agreement or network of agreements is covered by the TTBER. In the latter case, however, a serious cumulative effect is unlikely to arise as long as less than 50 % of the market is tied. Above this threshold significant foreclosure is likely to occur when there are relatively high barriers to entry for new licensees. If barriers to entry are low, new licensees are able to enter the market and exploit commercially attractive technologies held by third parties and thus represent a real alternative to incumbent licensees. In order to determine the real possibility for

entry and expansion by third parties it is also necessary to take account of the extent to which distributors are tied to licensees by non-compete obligations. Third party technologies only have a real possibility of entry if they have access to the necessary production and distribution assets. In other words, the ease of entry depends not only on the availability of licensees but also the extent to which they have access to distribution. In assessing foreclosure effects at the distribution level the Commission will apply the analytical framework set out in section VI.2.1 of the Guidelines on Vertical Restraints[80].

(215) When the licensor has a significant degree of market power, obligations on licensees to obtain the technology only from the licensor can lead to significant foreclosure effects. The stronger the market position of the licensor the higher the risk of foreclosing competing technologies. For appreciable foreclosure effects to occur the non-compete obligations do not necessarily have to cover a substantial part of the market. Even in the absence thereof, appreciable foreclosure effects may occur where non-compete obligations are targeted at undertakings that are the most likely to license competing technologies. The risk of foreclosure is particularly high where there is only a limited number of potential licensees and the licence agreement concerns a technology which is used by the licensees to make an input for their own use. In such cases the entry barriers for a new licensor are likely to be high. Foreclosure may be less likely in cases where the technology is used to make a product that is sold to third parties; although in this case the restriction also ties production capacity for the input in question, it does not tie demand for the product incorporating the input produced with the licensed technology. To enter the market in the latter case licensors only need access to one or more licensee(s) that have suitable production capacity and unless only few undertakings possess or are able to obtain the assets required to take a licence, it is unlikely that by imposing non-compete obligations on its licensees the licensor is able to deny competitors access to efficient licensees.

(216) Non-compete obligations may also produce pro-competitive effects. First, such obligations may promote dissemination of technology by reducing the risk of misappropriation of the licensed technology, in particular know-how. If a licensee is entitled to license competing technologies from third parties, there is a risk that particularly licensed know-how would be used in the exploitation of competing technologies and thus benefit competitors. When a licensee also exploits competing technologies, it normally also makes monitoring of royalty payments more difficult, which may act as a disincentive to licensing.

(217) Second, non-compete obligations possibly in combination with an exclusive territory may be necessary to ensure that the licensee has an incentive to invest in and exploit the licensed technology effectively. In cases where the agreement is caught by Article 101(1) because of an appreciable foreclosure effect, it may be necessary in order to benefit from Article 101(3) to choose a less restrictive alternative, for instance to impose minimum output or royalty obligations, which normally have less potential to foreclose competing technologies.

(218) Third, in cases where the licensor undertakes to make significant client specific investments for instance in training and tailoring of the licensed technology to the licensee's needs, non-compete obligations or alternatively minimum output or

80 See note 46.

minimum royalty obligations may be necessary to induce the licensor to make the investment and to avoid hold-up problems. However, normally the licensor will be able to charge directly for such investments by way of a lump sum payment, implying that less restrictive alternatives are available.

3. SETTLEMENT AGREEMENTS

(219) Licensing of technology or non-assertion clauses in settlement agreements may serve as a means of settling disputes or avoiding that one party exercises its intellectual property rights to prevent the other party from exploiting its own technology[81].

(220) Settlement agreements in the context of technology disputes are, as in many other areas of commercial disputes, in principle a legitimate way to find a mutually acceptable compromise to a bona fide legal disagreement. The parties may prefer to discontinue the dispute or litigation because it proves to be too costly, time-consuming and/or uncertain as regards its outcome. Settlements can save courts and/or competent administrative bodies effort in deciding on the matter and can therefore give rise to welfare enhancing benefits. On the other hand, it is in the general public interest to remove invalid intellectual property rights as an unmerited barrier to innovation and economic activity[82].

(221) Licensing including cross licensing in the context of settlement agreements is generally not as such restrictive of competition since it allows the parties to exploit their technologies post agreement. In cases where, in the absence of the licence, it is likely that the licensee could be excluded from the market, access to the technology at issue for the licensee by means of a settlement agreement is generally pro-competitive.

(222) However, the individual terms and conditions of settlement agreements may be caught by Article 101(1). Licensing in the context of settlement agreements is treated like other licence agreements.[83] In these cases, it is particularly necessary to assess whether the parties are competitors, also absent a possible blocking position.

Pay-for-restriction in settlement agreements

(223) Settlement agreements between competitors which include a licence for the technology and market concerned by the litigation but which lead to a delayed or otherwise limited ability for the licensee to launch the product on this market may under certain circumstance be caught by Article 101(1). Scrutiny is necessary in particular if the licensor provides an inducement, financially or otherwise, for the licensee to accept more restrictive settlement terms than would otherwise have been accepted based on the merits of the licensor's technology.

Cross-licensing in settlement agreements

(224) Settlement agreements whereby the parties cross license each other and impose restrictions on the use of their technologies, including restrictions on the licensing to third parties, may be caught by Article 101(1). Where the parties have a significant degree of market power and the agreement imposes restrictions that clearly go

[81] The TTBER and its Guidelines are without prejudice to the application of Article 101 to settlement agreements which do not contain a licensing agreement.

[82] Case 193/83 Windsurfing v Commission [1986] ECR 611, paragraph 92.

[83] Cf. Case 65/86 Bayer v. Sulhofer [1988], ECR 5259, paragraph 15.

beyond what is required in order to unblock, the agreement is likely to be caught by Article 101(1) even if it is likely that a mutual blocking position exists. Article 101(1) is particularly likely to apply where the parties share markets or fix reciprocal running royalties that have a significant impact on market prices.

(225) Where under the settlement agreement the parties are entitled to use each other's technology and the agreement extends to future developments, it is necessary to assess what is the impact of the agreement on the parties' incentive to innovate. In cases where the parties have a significant degree of market power the agreement is likely to be caught by Article 101(1) where the agreement prevents the parties from gaining a competitive lead over each other. 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 conditions of Article 101(3). It is particularly unlikely that the restriction can be considered indispensable within the meaning of the third condition of Article 101(3). The achievement of the objective of the agreement, namely to ensure that the parties can continue to exploit their own technology without being blocked by the other party, does not require that the parties agree to share future innovations. However, the parties are unlikely to be prevented from gaining a competitive lead over each other where the purpose of the licence is to allow the parties to develop their respective technologies and where the licence does not lead them to use the same technological solutions. Such agreements merely create design freedom by preventing future infringement claims by the other party.

Non-challenge clauses in settlement agreements

(226) In the context of a bona-fide settlement agreement, non-challenge clauses are generally considered to fall outside Article 101(1). It is inherent in such agreements that the parties agree not to challenge *ex post* the intellectual property rights which were the centre of the dispute. Indeed, the very purpose of the agreement is to settle existing disputes and/or to avoid future disputes.

(227) However, non-challenge clauses in settlement agreements can under specific circumstances be anti-competitive and may be caught by Article 101(1). Such clauses are not part of the specific subject-matter of a patent and may restrict competition within Article 101. For instance, this is the case where the licensor knows or could reasonably be expected to know that the licensed technology does not meet the respective legal criteria to receive intellectual property protection, for example where a patent was granted following the provision of incorrect, misleading or incomplete information. Scrutiny of such clauses is also necessary if the licensor induces, financially or otherwise, the licensee to agree not to challenge the validity of the technology.

4. TECHNOLOGY POOLS

(228) Technology pools are defined as 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. In terms of their structure technology pools can take the form of simple arrangements between a limited number of parties or elaborate organisational arrangements whereby the organisation of the licensing of the pooled technologies is entrusted to a separate entity. In both cases the pool may allow licensees to operate on the market on the basis of a single licence.

(229) There is no inherent link between technology pools and standards, but often the technologies in the pool often (wholly or partly) support a *de facto* or *de jure* industry standard.[84] Different technology pools may support competing standards[85].Technology pools can produce pro-competitive effects, in particular by reducing transaction costs and by setting a limit on cumulative royalties to avoid double marginalisation. The creation of a pool allows for one-stop licensing of the technologies covered by the pool. This is particularly important in sectors where intellectual property rights are prevalent and licences need to be obtained from a significant number of licensors in order to operate on the market. In cases where licensees receive on-going services concerning the application of the licensed technology, joint licensing and servicing can lead to further cost reductions. Patent pools can also play a beneficial role in the implementation of pro-competitive standards.

(230) Technology pools may also be restrictive of competition. The creation of a technology pool necessarily implies joint selling of the pooled technologies, which in the case of pools composed solely or predominantly of substitute technologies amounts to a price fixing cartel. Moreover, in addition to reducing competition between the parties, technology pools may also, in particular when they support an industry standard or establish a *de facto* industry standard, result in a reduction of innovation by foreclosing alternative technologies. The existence of the standard and the related technology pool may make it more difficult for new and improved technologies to enter the market.

(231) Agreements establishing technology pools and setting out the terms and conditions for their operation are not — irrespective of the number of parties — covered by the block exemption, as the agreement to establish the pool does not permit a particular licensee to produce contract products (cf. section III.2.2 above). Such agreements are addressed only by these guidelines. Pooling arrangements give rise to a number of particular issues regarding the selection of the included technologies and the operation of the pool, which do not arise in the context of other types of licensing. Licensing out from the pool is generally considered to be a multiparty agreement taking into account that the contributors commonly determine the conditions for such licensing out and is therefore also not covered by the block exemption. Licensing out from the pool is however covered by section IV.4.2.

4.1. The assessment of the formation and operation of technology pools

(232) The way in which a technology pool is created, organised and operated can reduce the risk of it having the object or effect of restricting competition and provide assurances to the effect that the arrangement is pro-competitive. In assessing the possible competitive risks and efficiencies, the Commission will, inter alia, take account of the transparency of the pool creation process; the selection and nature of the pooled technologies, including the extent to which independent experts are involved in the creation and operation of the pool; and whether safeguards against exchange of sensitive information and independent dispute resolution mechanisms have been put in place.

---

[84] See concerning the treatment of standards and the treatment of standardisation agreements the Horizontal Guidelines, paragraph 257 ff., cited in note 26.

[85] See in this respect the Commission's press release IP/02/1651 concerning the licensing of patents for third generation (3G) mobile services. This case involved five technology pools creating five different technologies, each of which could be used to produce 3G equipment.

Open participation

(233) When participation in a standard and pool creation process is open to all interested parties representing different interests it is more likely that technologies for inclusion into the pool are selected on the basis of price/quality considerations than when the pool is set up by a limited group of technology owners. Similarly, when the relevant bodies of the pool are composed of persons representing different interests, it is more likely that licensing terms and conditions, including royalties, will be offered to all potential licensees and be non-discriminatory and reflect the value of the licensed technology than when the pool is controlled only by licensor representatives.

Selection and nature of the pooled technologies

(234) The competitive risks and the efficiency enhancing potential of technology pools depend to a large extent on the relationship between the pooled technologies and their relationship with technologies outside the pool. Two basic distinctions must be made, namely (a) between technological complements and technological substitutes and (b) between essential and non-essential technologies.

(235) Two technologies are complements as opposed to substitutes when they are both required to produce the product or carry out the process to which the technologies relate. Conversely, two technologies are substitutes when either technology allows the holder to produce the product or carry out the process to which the technologies relate.

(236) A technology can be essential either (a) to produce a particular product or carry out a particular process to which the pooled technologies relate or (b) to produce such product or carry out such a process in accordance with a standard which includes the pooled technologies. In the first case, a technology is essential (as opposed to non-essential) if there are no commercially or technically viable substitutes for that technology inside or outside the pool and the technology in question constitutes a necessary part of the package of technologies for the purposes of producing the product(s) or carrying out the process(-es) to which the pool relates. In the second case, a technology is essential if it constitutes a necessary part (that is to say, there are no viable substitutes) of the pooled technologies needed to comply with the standard supported by the pool (standard essential technologies). Technologies that are essential are by necessity also complements.

(237) When technologies in a pool are substitutes, royalties are likely to be higher than they would otherwise be, because licensees do not benefit from rivalry between the technologies in question. When the technologies in the pool are complements the patent pool reduces transaction costs and may lead to lower overall royalties because the parties are in a position to fix a common royalty for the package as opposed to each fixing a royalty which does not take account of the royalty fixed by others. For the assessment of substitutes outside the pool see paragraph (245).

(238) The distinction between complementary and substitute technologies is not clear-cut in all cases, since technologies may be substitutes in part and complements in part. When due to efficiencies stemming from the integration of two technologies licensees are likely to demand both technologies the technologies are treated as complements even if they are partly substitutable. In such cases it is likely that in the absence of the pool licensees would want to licence both technologies due to the additional economic benefit of using both technologies as opposed to using only one of them.

(239) The inclusion in the pool of substitute technologies generally restricts inter-technology competition since it can amount to collective bundling and lead to price fixing between competitors. As a general rule the Commission considers that the inclusion of significant substitute technologies in the pool constitutes a violation of Article 101(1). The Commission also considers that it is unlikely that the conditions of Article 101(3) will be fulfilled in the case of pools comprising to a significant extent substitute technologies. Given that the technologies in question are alternatives, no transaction cost savings accrue from including both technologies in the pool. In the absence of the pool licensees would not have demanded both technologies. To alleviate the competition concerns it is not sufficient that the parties remain free to license independently. This is because the parties are likely to have little incentive to license independently in order not to undermine the pool's licensing activity, which allows them to jointly exercise market power.

Selection and function of independent experts

(240) Another relevant factor in assessing the competitive risks and the efficiencies of technology pools is the extent to which independent experts are involved in the creation and operation of the pool. For instance, the assessment of whether or not a technology is essential to a standard supported by a pool is often a complex matter that requires special expertise. The involvement in the selection process of independent experts can go a long way in ensuring that a commitment to include only essential technologies is implemented in practice. Where the selection of technologies to be included in the pool is carried out by an independent expert this may also further competition between available technological solutions.

(241) The Commission will take into account how experts are selected and what are the exact functions that they are to perform. Experts should be independent from the undertakings that have formed the pool. If experts are connected to the licensors (or the licensing activity of the pool) or otherwise depend on them, the involvement of the expert will be given less weight. Experts must also have the necessary technical expertise to perform the various functions with which they have been entrusted. The functions of independent experts may include, in particular, an assessment of whether or not technologies put forward for inclusion into the pool are valid and whether or not they are essential.

(242) Finally, it is relevant to take account of any dispute resolution mechanism foreseen in the instruments setting up the pool. The more dispute resolution is entrusted to bodies or persons that are independent of the pool and the members thereof, the more likely it is that the dispute resolution will operate in a neutral way.

Safeguards against exchange of sensitive information

(243) It is also relevant to consider the arrangements for exchanging sensitive information among the parties. In oligopolistic markets exchanges of sensitive information such as pricing and output data may facilitate collusion[86]. In such cases the Commission will take into account to what extent safeguards have been put in place, which ensure that sensitive information is not exchanged. An independent expert or licensing body may play an important role in this respect by ensuring that output and sales data, which may be necessary for the purposes of calculating and verifying royalties is not disclosed to undertakings that compete on affected markets. Special care should be

[86] See in this respect the judgment in *John Deere* cited in note 11.

taken to put in place such safeguards when interested parties participate simultaneously in efforts to form pools of competing standards where this may lead to exchange of sensitive information between competing pools.

Safe harbour

(244) The creation and operation of the pool generally falls outside Article 101(1) irrespective of the market position of the parties if all the following conditions are fulfilled:

(a) participation in the standard and pool creation process is open to all interested parties;

(b) sufficient safeguards are adopted to ensure that only essential technologies (which therefore by necessity are also complements) are pooled;

(c) sufficient safeguards are adopted to ensure that exchange of sensitive information is restricted to what is necessary for the creation and operation of the pool;

(d) the pooled technologies are licensed into the pool on a non-exclusive basis;

(e) the pooled technologies are licensed out to all potential licensees on FRAND terms

(f) the parties contributing technology to the pool and the licensees are free to challenge the validity and the essentiality of the pooled technologies, and;

(g) the parties contributing technology to the pool and the licensee remain free to develop competing products and technology.

Outside the safe harbour

(245) Where significant complementary but non-essential patents are included in the pool there is a risk of foreclosure of third party technologies. Once a technology is included in the pool and is licensed as part of the package, licensees are likely to have little incentive to license a competing technology when the royalty paid for the package already covers a substitute technology. Moreover, the inclusion of technologies which are not necessary for the purposes of producing the product(s) or carrying out the process(es) to which the technology pool relates or to comply with the standard which includes the pooled technology also forces licensees to pay for technology that they may not need. The inclusion of complementary technology thus amounts to collective bundling. Where a pool encompasses non-essential technologies, the agreement is likely to be caught by Article 101(1) where the pool has a significant position on any relevant market.

(246) Given that substitute and complementary technologies may be developed after the creation of the pool, the assessment of essentiality is an on-going process. A technology may therefore become non-essential after the creation of the pool due to the emergence of new third party technologies. One way to ensure that such third party technologies are not foreclosed is to exclude from the pool technologies that have become non-essential. However, there may be other ways to ensure that third party technologies are not foreclosed.

(247) In the assessment of technology pools comprising non-essential technologies, the Commission will in its overall assessment, *inter alia*, take account of the following factors:

(a) whether there are any pro-competitive reasons for including the non-essential technologies in the pool, for example due to the costs of assessing whether all the technologies are essential in view of the high number of technologies;

(b) whether the licensors remain free to license their respective technologies independently. Where the pool is composed of a limited number of technologies and there are substitute technologies outside the pool, licensees may want to put together their own technological package composed partly of technology forming part of the pool and partly of technology owned by third parties;

(c) whether, in cases where the pooled technologies have different applications some of which do not require use of all of the pooled technologies, the pool offers the technologies only as a single package or whether it offers separate packages for distinct applications, each comprising only those technologies relevant to the application in question. In the latter case technologies which are not essential to a particular product or process are not tied to essential technologies;

(d) whether the pooled technologies are available only as a single package or whether licensees have the possibility of obtaining a licence for only part of the package with a corresponding reduction of royalties. The possibility to obtain a licence for only part of the package may reduce the risk of foreclosure of third party technologies outside the pool, in particular where the licensee obtains a corresponding reduction in royalties. This requires that a share of the overall royalty has been assigned to each technology in the pool. Where the licence agreements concluded between the pool and individual licensees are of relatively long duration and the pooled technology supports a de facto industry standard, it must also be taken into account that the pool may foreclose access to the market of new substitute technologies. In assessing the risk of foreclosure in such cases it is relevant to take into account whether or not licensees can terminate at reasonable notice part of the licence and obtain a corresponding reduction of royalties.

(248) Even patent pool arrangements that restrict competition may give rise to pro-competitive efficiencies (see paragraph (229), which must be considered under Article 101(3) and balanced against the negative effects on competition. For example if the patent pools include non-essential patents but fulfils all the other criteria of the safe harbour listed in paragraph (244), where there are pro-competitive reasons for including non-essential patents in the pool (see (a) above) and where licensees have the possibility of obtaining a licence for only part of the package with a corresponding reduction of royalties (see (d) above), the conditions of Article 101(3) are likely to be fulfilled.

4.2. Assessment of individual restraints in agreements between the pool and its licensees

(249) Where the agreement to set up a technology pool does not infringe Article 101, the next step is to assess the competitive impact of the licences agreed by the pool with its licensees. The conditions on which these licences are granted may be caught by Article 101(1). The purpose of this section is to address a certain number of restraints that in one form or another are commonly found in licensing agreements from technology pools and which need to be assessed in the overall context of the pool. Generally the TTBER does not apply to licence agreements concluded between the pool and third party licensees (see paragraph (231). This section deals with the

individual assessment of licensing issues that are particular to licensing in the context of technology pools.

(250) In making its assessment of technology transfer agreements between the pool and its licensees the Commission will be guided by the following main principles:

(a) The stronger the market position of the pool the greater the risk of anti-competitive effects.

(b) the stronger the market position of the pool, the more likely that agreeing not to license to all potential licensees or to license on discriminatory terms will infringe Article 101.

(c) pools should not unduly foreclose third party technologies or limit the creation of alternative pools.

(d) the technology transfer agreements should not contain any of the hardcore restrictions listed in rticle 4 of the TTBER (cf. section III.4 above)

(251) Undertakings setting up a technology pool that is compatible with Article 101, are normally free to negotiate and fix royalties for the technology package (subject to any commitment given to license on fair, reasonable and non-discriminatory terms, FRAND) and each technology's share of the royalties either before or after the standard is set. Such agreement is inherent in the establishment of the standard or pool and cannot in itself be considered restrictive of competition. In certain circumstances it may be more efficient if the royalties are agreed before the standard is chosen, to avoid that the choice of the standard increases the royalty rate by conferring a significant degree of market power on one or more essential technologies. On the other hand, licensees must remain free to determine the price of products produced under the licence.

(252) Where the pool has a dominant position on the market, royalties and other licensing terms should be FRAND[87] and licences should be non-exclusive. These requirements are necessary to ensure that the pool is open and does not lead to foreclosure and other anti-competitive effects on down-stream markets. These requirements, however, do not preclude different royalties for different uses. It is in general not considered restrictive of competition to apply different royalty rates to different product markets, whereas there should be no discrimination within product markets. In particular, the treatment of licensees of the pool should not depend on whether they are also licensors or not. The Commission will therefore take into account whether licensors and licensees are subject to the same royalty obligations.

(253) Licensors and licensees must be free to develop competing products and standards. They must also be free to grant and obtain licences outside the pool. These requirements are necessary in order to limit the risk of foreclosure of third party technologies and ensure that the pool does not limit innovation and preclude the creation of competing technological solutions. Where pooled technology is included in a *(de facto)* industry standard and where the parties are subject to non-compete obligations, the pool creates a particular risk of preventing the development of new and improved technologies and standards.

(254) Grant back obligations should be non-exclusive and be limited to developments that are essential or important to the use of the pooled technology. This allows the pool to

[87] For details on FRAND see Horizontal Guidelines, paragraph 287 pp., cited in note 26.

feed on and benefit from improvements to the pooled technology. It is legitimate for the parties to ensure by grant back obligations that the exploitation of the pooled technology cannot be held up by licensees, including subcontractors working under the licence of the licensee, that hold or obtain essential patents.

(255) One of the problems identified with regard to patent pools is the risk that they may shield invalid patents. Pooling may raise the costs/risks for a successful challenge, because the challenge might fail if only one patent in the pool is valid. The shielding of invalid patents in the pool may oblige licensees to pay higher royalties and may also prevent innovation in the field covered by an invalid patent. In this context, non-challenge clauses, including termination clauses[88], in a technology transfer agreement between the pool and third parties are likely to fall within Article 101(1).

(256) Pools often include both patents and patent applications. If patent applicants who submit their patent applications to pools, where available, use the patent application procedures that allow for a faster granting, this will achieve faster certainty on the validity and scope of these patents.

[88] See section III.5.