

COMMISSION NOTICE

Guidelines on the application of Article 81 of the EC Treaty to technology transfer agreements

(2004/C 101/02)

(Text with EEA relevance)

I. INTRODUCTION

1. These guidelines set out the principles for the assessment of technology transfer agreements under Article 81 of the Treaty. 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 1(1)(b) of Commission Regulation (EC) No 773/2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements (the TTBER) ⁽¹⁾.
2. The purpose of the guidelines is to provide guidance on the application of the TTBER as well as on the application of Article 81 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 82 of the Treaty to licensing agreements ⁽²⁾.
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. The Commission will keep under review the functioning of the TTBER and the guidelines in the new enforcement system created by Regulation 1/2003 ⁽³⁾ to consider whether changes need to be made.
4. The present guidelines are without prejudice to the interpretation of Article 81 and the TTBER that may be given by the Court of Justice and the Court of First Instance.

II. GENERAL PRINCIPLES

1. Article 81 and intellectual property rights

5. The aim of Article 81 as a whole is to protect competition on the market with a view to promoting consumer welfare and an efficient allocation of resources. Article 81(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 distortion of competition ⁽⁶⁾. As an exception to this rule Article 81(3) provides that the prohibition contained in Article

81(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 his 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 his 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 Community 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 Community 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 his intellectual property without his 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 81 and 82 are in particular applicable to agreements whereby the holder licenses another undertaking to exploit his intellectual property rights ⁽⁹⁾. Nor does it imply that there is an inherent conflict between intellectual property rights and the Community 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.

8. In the assessment of licence agreements under Article 81 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 compensation 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 81 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 81(1) or fulfilling the conditions of Article 81(3), as the case may be, for the period of time required to recoup the investment.
9. In assessing licensing agreements under Article 81, 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 innovation. In addition, even licence agreements that do restrict competition may often give rise to pro-competitive efficiencies, which must be considered under Article 81(3) and balanced against the negative effects on competition⁽¹⁰⁾. The great majority of licence agreements are therefore compatible with Article 81.
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 81(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 81(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 his 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 81(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 81(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 81(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. For instance, territorial restraints in an agreement between non-competitors may fall outside Article 81(1) for a certain duration if the restraints are objectively necessary for a licensee to penetrate a new market. 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.

2. The general framework for applying Article 81

10. Article 81(1) prohibits agreements which have as their object or effect the restriction of competition. Article 81(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 (i.e. competition between undertakings using competing technologies) and on intra-technology competition (i.e. competition between undertakings using the same technology)⁽¹²⁾. Article 81(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.

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 81(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 81(1) if its object or effect is to restrict inter-technology competition and/or intra-technology competition.
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 Community competition rules have such a high potential for negative effects on competition that it is not necessary for the purposes of applying Article 81(1) to demonstrate any actual effects on the market⁽¹⁴⁾. Moreover, the conditions of Article 81(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⁽¹⁵⁾. 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.
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⁽¹⁶⁾. 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⁽¹⁷⁾. 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. The degree of market power normally required for a finding of an infringement under Article 81(1) is less than the degree of market power required for a finding of dominance under Article 82.
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 him 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 his 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 81(1) the pro-competitive effects of the agreement must be balanced against its restrictive effects in the context of Article 81(3). When all four conditions of Article 81(3) are satisfied, the restrictive licence agreement in question is valid and enforceable, no prior decision to that effect being required⁽¹⁸⁾. Hardcore restrictions of competition only fulfil the conditions of Article 81(3) in exceptional circumstances. Such agreements generally fail (at least) one of the first two conditions of Article 81(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 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⁽¹⁹⁾. 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 in input markets and in output markets. For instance, an agreement between two parties which sell competing products and which cross license technologies relating to the production of these products may restrict competition on the product market concerned. It may also restrict competition on the market for technology and possibly also on other input markets. For the purposes of assessing the competitive effects of licence agreements it may therefore be necessary to define relevant goods and service markets (product markets) as well as technology markets⁽²⁰⁾. The term 'product market' used in Article 3 of the TTBER refers to relevant goods and service markets in both their geographic and product dimension. As is clear from Article 1(1)(j) of the TTBER, the term is used merely to distinguish relevant goods and service markets from relevant technology markets.
21. The TTBER and these guidelines are concerned with effects both on product markets for final products and on product markets for intermediate products. The relevant product market includes products which are regarded by the buyers as interchangeable with or substitutable for the contract products incorporating the licensed technology, by reason of the products' characteristics, their prices and their intended use.
22. Technology markets consist of the licensed technology and its substitutes, i.e. 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. The methodology for defining technology markets follows the same principles as the definition of product markets. 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, i.e. the royalties. An alternative approach is to look at the market for products incorporating the licensed technology (cf. paragraph below).
23. 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. An alternative approach, which is the one used in Article 3(3) 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 paragraph 70 below). Under this approach all sales on the relevant product market are taken into account, irrespective of whether the product incorporates a technology that is being licensed. In the case of technology markets the approach of Article 3(3) to take into account technologies that are (only) being used in-house, is justified. Indeed, this approach is in general 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 he 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 him less competitive, causing him 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. 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.

24. Moreover, outside the safe harbour of the TTBER it must also be taken into account that market share may not always be a good indication of the relative strength of available technologies. The Commission will therefore, *inter alia*, also have regard to the number of independently controlled technologies available 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 (see paragraph 131 below).
25. Some licence agreements may affect innovation markets. 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⁽²¹⁾. 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 define innovation markets. 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⁽²²⁾. 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
26. 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 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.
27. 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.
28. Where the licensor and the licensee are both active on the same product market or the same 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 deemed to be actual competitors on the technology market if the licensee is already licensing out his technology and the licensor enters the technology market by granting a license for a competing technology to the licensee.
29. The parties are considered to be potential competitors on the product market if in the absence of the agreement and without infringing the intellectual property rights of the other party it is likely that they would have undertaken the necessary additional investment to enter the relevant market in response to a small but permanent increase in product prices. 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 patents (see paragraph 32 below).
30. 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 his own technology, provided that he would be likely to do so in the event of a small but permanent increase in technology prices. However, for the application of the TTBER potential competition on the technology market is not taken into account (see paragraph 66 below).

31. In some cases the parties may become competitors subsequent to the conclusion of the agreement because the licensee develops 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 his 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 product market prior to the licence and where the licensor subsequently enters the product 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).

32. If the parties own technologies that are in a one-way or two-way blocking position, the parties are considered to be non-competitors on the technology market. A one-way blocking position exists when a technology cannot be exploited without infringing upon another 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.

33. 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 81(1) and Article 81(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 BLOCK EXEMPTION REGULATION

1. The effects of the Block Exemption Regulation

34. Technology transfer agreements that fulfil the conditions set out in the TTBER are block exempted from the prohibition rule contained in Article 81(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 81 by national courts in the context of private litigation.

35. 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 81(1) — fulfil the four conditions laid down in Article 81(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 81(3) are block exempted.

36. As set out in section IV below, many licence agreements fall outside Article 81(1), either because they do not restrict competition at all or because the restriction of competition is not appreciable⁽²³⁾. 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 81(1)⁽²⁴⁾.

37. Outside the scope of the block exemption it is relevant to examine whether in the individual case the agreement is caught by Article 81(1) and if so whether the conditions of Article 81(3) are satisfied. There is no presumption that technology transfer agreements falling outside the block exemption are caught by Article 81(1) or fail to satisfy the conditions of Article 81(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 81(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 81.

2. Scope and duration of the Block Exemption Regulation

2.1. Agreements between two parties

38. According to Article 2(1) 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⁽²⁵⁾. 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.

39. 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⁽²⁶⁾.

40. 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

41. It follows from Article 2 that for licence agreements to be covered by the TTBER they must concern 'the production of contract products', i.e. products incorporating or produced with the licensed technology. In other words, to be covered by the TTBER the licence must permit the licensee to exploit the licensed technology for production of 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 more undertakings agree to license a third party and authorise him to license on the package of technologies. Technology pools are dealt with in section IV.4 below.

42. The TTBER applies to licence agreements for the production of contract products whereby the licensee is also permitted to sublicense the licensed technology to third parties provided, however, that the production of contract products constitutes the primary object of the agreement. Conversely, the TTBER does not apply to agreements that have sublicensing as their primary object. However, the Commission will apply by analogy the principles set out in the TTBER and these guidelines to such 'master licensing' agreements between licensor and licensee. Agreements between the licensee and sub-licensees are covered by the TTBER.

43. 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 his 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.

44. 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, the licensed technology and not the supplied equipment must constitute the primary object of the agreement. Subcontracting is also covered by the Commission's Notice concerning the assessment of certain subcontracting agreements in relation to Article 81(1) of the Treaty ⁽²⁷⁾. According to this notice, which remains applicable, subcontracting agreements whereby the subcontractor undertakes to produce certain products exclusively for the contractor generally fall outside Article 81(1). However, other restrictions imposed on the subcontractor such as the obligation not to conduct or exploit his own research and development may be caught by Article 81 ⁽²⁸⁾.

45. 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. On the other hand, the TTBER and the guidelines do not cover agreements whereby a technology is licensed for the purpose of enabling the licensee to carry out further research and development in various fields. 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

46. The TTBER and these guidelines cover agreements for the transfer of technology. According to Article 1(1)(b) and (h) of the TTBER the concept of 'technology' covers patents and patent applications, utility models and

applications for utility models, design rights, plant breeders rights, topographies of semiconductor products, supplementary protection certificates for medicinal products or other products for which such supplementary protection certificates may be obtained, software copyright, and know-how. The licensed technology should allow the licensee with or without other inputs to produce the contract products.

47. Know-how is defined in Article 1(1)(i) as a package of non-patented 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 of 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 his 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 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.

48. 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 his 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.

49. The TTBER only applies to agreements that have as their primary object the transfer of technology as defined in that Regulation as opposed to the purchase of goods and services or the licensing of other types of intellectual property. Agreements containing provisions relating to the purchase and sale of products are only covered by the TTBER to the extent that those provisions do not constitute the primary object of the agreement and are directly related to the application of the licensed technology. This is likely to be the case where the tied products take the form of equipment or process input which is specifically tailored to efficiently exploit the licensed technology. If, on the other hand, the product is simply another input into the final product, it must be carefully examined whether the licensed technology constitutes the primary object of the agreement. For instance, in cases where the licensee is already manufacturing a final product on the basis of another technology, the licence must lead to a significant improvement of the licensee's production process, exceeding the value of the product purchased from the licensor. The requirement that the tied products must be related to the licensing of technology implies that the TTBER does not cover the purchase of products that have no relation with the products incorporating the licensed technology. This is for example the case where the tied product is not intended to be used with the licensed product, but relates to an activity on a separate product market.
50. 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 related to the exploitation of the licensed technology and do not constitute the primary object of the agreement. 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 his 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 himself as the source of the underlying technology. However, where the value of the licensed technology to the licensee is limited because he already employs an identical or very similar technology and the main object of the agreement is the trademark, the TTBER does not apply ⁽²⁹⁾.
51. The licensing of copyright for the purpose of reproduction and distribution of the protected work, i.e. the production of copies for resale, is considered to be similar to technology licensing. Since such licence agreements relate to the production and sale of products on the basis of an intellectual property right, they are considered to be of a similar nature as technology transfer agreements and normally raise comparable issues. 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 81.
52. On the other hand, the licensing of rights in performances and other rights related to copyright 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 the various rights related to performances value is created not by the reproduction and sale of copies of a product but by each individual performance of the protected work. Such exploitation can take various forms including the performance, showing or the renting of protected material such as films, music or sporting events. In the application of Article 81 the specificities of the work and the way in which it is exploited must be taken into account ⁽³⁰⁾. For instance, resale restrictions may give rise to less competition concerns whereas particular concerns may arise where licensors impose on their licensees to extend to each of the licensors more favourable conditions obtained by one of them. The Commission will therefore not apply the TTBER and the present guidelines by way of analogy to the licensing of these other rights.
53. 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 (EC) No 2790/1999 on the application of Article 81(3) of the Treaty to categories of vertical agreements and concerted practices ⁽³¹⁾.

2.4. Duration

54. Subject to the duration of the TTBER, 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).

55. The block exemption applies to each licensed property right covered by the agreement and ceases to apply on the date of expiry, invalidity or the coming into the public domain of the last intellectual property right which constitutes 'technology' within the meaning of the TTBER (cf. paragraph above).

2.5. Relationship with other block exemption regulations

56. 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 (EC) No 2658/2000 on the application of Article 81(3) of the Treaty to categories of specialisation agreements⁽³²⁾, Commission Regulation 2659/2000 on the application of Article 81(3) to categories of research and development agreements⁽³³⁾ and Commission Regulation (EC) No 2790/1999 on the application of Article 81(3) of the Treaty to categories of vertical agreements and concerted practices⁽³⁴⁾.

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

57. According to Article 1(1)(c) of Regulation 2658/2000 on specialisation agreements, that Regulation covers, *inter alia*, joint production agreements by virtue of which two or more undertakings 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.

58. 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 2658/2000 and not the TTBER. Accordingly, licensing in the context of a production joint venture normally falls to be considered under Regulation 2658/2000. 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 below.

59. Regulation 2659/2000 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 2(11), 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.

60. It follows that Regulation 2659/2000 covers licensing between the parties and by the parties to a joint entity in the context of a research and development agreement. 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 2659/2000. 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

61. Commission Regulation (EC) No 2790/1999 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⁽³⁵⁾.

62. 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 2790/1999, these 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 are subject to Regulation 2790/1999 and the Guidelines on Vertical Restraints⁽³⁶⁾.

63. 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 he 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 2790/1999. 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 2790/1999 that distributors must be free to make passive sales into the territories of other exclusive distributors.

64. Furthermore, distributors must in principle be free to sell both actively and passively into territories covered by the distribution systems of other licensees producing their own products on the basis of the licensed technology. This is because for the purposes of Regulation 2790/1999 each licensee is a separate supplier. However, the reasons underlying the block exemption contained in that Regulation may also apply where the products incorporating the licensed technology are sold by the 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 2790/1999 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 him as the source of the licensed technology.

3. The safe harbour established by the Block Exemption Regulation

65. According to Article 3 of the TTBER the block exemption of restrictive agreements 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 81(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 81(1) or that the agreement does not fulfil the conditions of Article 81(3). In the absence of hardcore restrictions, market analysis is required.
66. 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 or non-competitors. For the purposes of the TTBER undertakings are competitors on the relevant technology market when they license competing technologies. 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).

67. Undertakings are competitors on the relevant product market where both undertakings are active on the same product and geographic market(s) on which the products incorporating the licensed technology are sold (actual competitors). They are also considered competitors where they would be likely, on realistic grounds, to undertake the necessary additional investments or other necessary switching costs to enter the relevant product and geographic market(s) within a reasonably short period of time⁽³⁷⁾ in response to a small and permanent increase in relative prices (potential competitors).
68. It follows from paragraphs 66 and 67 that two undertakings are not competitors for the purposes of the TTBER where the licensor is neither an actual nor a potential supplier of products on the relevant market and the licensee, already present on the product market, is not licensing out a competing technology even if he owns a competing technology and produces on the basis of that technology. However, the parties become competitors if at a later point in time the licensee starts licensing out his technology or the licensor becomes an actual or potential supplier of products on the relevant market. 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 31 above.
69. In the case of agreements between competitors the market share threshold is 20 % and in the case of agreements between non-competitors it is 30 % (cf. Article 3(1) and (2) of the TTBER). Where the undertakings party to the licensing agreement are not competitors the agreement is covered if the market share of neither party exceeds 30 % on the affected relevant technology and product markets. Where the undertakings party to the licensing agreement are competitors the agreement is covered if the combined market shares of the parties do not exceed 20 % on the relevant technology and product markets. The market share thresholds apply both to technology markets and markets for products incorporating the licensed technology. If the applicable market share threshold is exceeded on an affected relevant market, the block exemption does not apply to the agreement for that relevant market. For instance, if the licence agreement concerns two separate product markets or two separate geographic markets, the block exemption may apply to one of the markets and not to the other.

70. In the case of technology markets, it follows from Article 3(3) of the TTBER that the licensor's market share is to be calculated on the basis of the sales of the licensor and all his licensees of products incorporating the licensed technology and this for each relevant market separately⁽³⁸⁾. Where the parties are competitors on the technology market, sales of products incorporating the licensee's own technology must be combined with the sales of the products incorporating the licensed technology. In the case of new technologies that have not yet generated any sales, a zero market share is assigned. When sales commence the technology will start accumulating market share.

71. In the case of product markets, 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, i.e. 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.

72. Market shares should be calculated on the basis of sales value data 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.

73. 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 are between non-competitors and the individual market shares of A, B and C are below 30 % each year, the agreements fall 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 technology market has to be calculated for each of the two geographic markets. 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, i.e. 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(2) 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 competitors*Example 3

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

74. 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 Community Courts⁽³⁹⁾ such a restriction may result from the clear objective of the agreement or from the circumstances of the individual case (cf. paragraph 14 above).

75. 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 hardcore restrictions of competition will only in exceptional circumstances fulfil the four conditions of Article 81(3) (cf. paragraph 18 above).
76. Article 4 of the TTBER distinguishes between agreements between competitors and agreements between non-competitors.
- 4.2. Agreements between competitors**
77. 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:
- (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.
78. 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 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.

79. 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.
80. 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⁽⁴⁰⁾. Competitors can therefore use cross licensing with reciprocal running royalties as a means of co-ordinating prices on downstream product markets⁽⁴¹⁾. 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.
81. 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 his ability to use his own technology (see paragraph 95 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 agreement⁽⁴²⁾. This is so both in the case of reciprocal and non-reciprocal arrangements. Exceptionally, however, an agreement whereby royalties are calculated on the basis of all product sales may fulfil the conditions of Article 81(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.
82. 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 cover 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 his 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 obliging each other to make payments if a certain level of output is exceeded.
83. 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.
84. 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.
85. Article 4(1)(c) applies irrespective of whether the licensee remains free to use his 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. Moreover, given the anti-competitive potential of the restraint the licensee may have little incentive to produce under his own technology. Such restrictions are also highly unlikely to be indispensable for pro-competitive licensing to occur.

86. 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 himself 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.
87. 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⁽⁴³⁾ into an exclusive territory or to an exclusive customer group reserved for the other party.
88. According to Article 4(1)(c)(iii) it is also not a hardcore restriction if the licensor appoints the licensee as his 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 the respective territories.
89. 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 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 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.
90. 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⁽⁴⁴⁾ 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.
91. 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 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 85 above). In addition, field of use restrictions may be necessary to promote pro-competitive licensing (see paragraph 182 below).
92. Article 4(1)(c)(vi) contains a further exception, namely captive use restrictions, i.e. a requirement whereby the licensee may produce the products incorporating the licensed technology only for his own use. Where the contract product is a component the licensee can thus be obliged to produce that component only for incorporation into his 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 his 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.

93. 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 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. 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 his own technology.

94. 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.

95. According to Article 4(1)(d) the licensee must also be unrestricted in the use of his own competing technology provided that in so doing he does not make use of the technology licensed from the licensor. In relation to his own technology the licensee must not be subject to limitations in terms of where he produces or sells, how much he produces or sells and at what price he sells. He must also not be obliged to pay royalties on products produced on the basis of his own technology (cf. paragraph 81 above). Moreover, the licensee must not be restricted in licensing his own technology to third parties. When

restrictions are imposed on the licensee's use of his 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 his technology.

4.3. Agreements between non-competitors

96. 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:

- (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 restriction of passive sales into an exclusive territory or to an exclusive customer group allocated by the licensor to another licensee during the first two years that this other licensee is selling the contract products in that territory or to that customer group;
 - (iii) 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;
 - (iv) 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;

- (v) the restriction of sales to end users by a licensee operating at the wholesale level of trade;
- (vi) 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.
97. 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 his selling price, such as the licensor obliging the licensee to apply a most-favoured-customer clause, i.e. 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.
98. 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 by licensees of products incorporating the licensed technology⁽⁴⁵⁾. 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.
99. 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 paragraphs 105 and 106 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 he will only face active sales competition from a limited number of licensees inside the territory and not also from licensees outside the territory.
100. 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.

101. Restrictions on passive sales by licensees into an exclusive territory or customer group allocated to another licensee are block exempted for two years calculated from the date on which the protected licensee first markets the products incorporating the licensed technology inside his exclusive territory or to his exclusive customer group (cf. Article 4(2)(b)(ii)). Licensees often have to commit substantial investments in production assets and promotional activities in order to start up and develop a new territory. The risks facing the new licensee are therefore likely to be substantial, in particular since promotional expenses and investment in assets required to produce on the basis of a particular technology are often sunk, i.e. they cannot be recovered if the licensee exits the market. 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 by other licensees. Restrictions on passive sales into the exclusive territory of a licensee by other licensees therefore often fall outside Article 81(1) for a period of up to two years from the date on which the product incorporating the licensed technology was first put on the market in the exclusive territory by the licensee in question. However, to the extent that in individual cases such restrictions are caught by Article 81(1) they are block exempted. After the expiry of this two-year period restrictions on passive sales between licensees constitute hardcore restrictions. Such restrictions are generally caught by Article 81(1) and are unlikely to fulfil the conditions of Article 81(3). In particular, passive sales restrictions are unlikely to be indispensable for the attainment of efficiencies ⁽⁴⁶⁾.
102. Article 4(2)(b)(iii) brings under the block exemption a restriction whereby the licensee is obliged to produce products incorporating the licensed technology only for his own (captive) use. Where the contract product is a component the licensee can thus be obliged to use that product only for incorporation into his 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 his 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.
103. As in the case of agreements between competitors (cf. paragraph 93 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 (cf. Article 4(2)(b)(iv)). In the case of agreements between non-competitors, such restrictions are unlikely to be caught by Article 81(1).
104. Article 4(2)(b)(v) 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 81(1) ⁽⁴⁷⁾.
105. Finally Article 4(2)(b)(vi) 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)(v) (cf. the previous paragraph).
106. It is recalled (cf. paragraph 39 above) that the block exemption covers licence agreements whereby the licensor imposes obligations which the licensee must or may impose on his buyers, including distributors. However, these obligations must comply with the competition rules applicable to supply and distribution agreements. Since the TTBER is limited to agreements between two parties the agreements concluded between the licensee and his buyers implementing such obligations are not covered by the TTBER. Such agreements are only block exempted when they comply with Regulation 2790/1999 (cf. section 2.5.2 above).
- ### 5. Excluded restrictions
107. Article 5 of the TTBER lists four types of restrictions that are not block exempted and which thus require individual assessment of their anti-competitive and pro-competitive effects. 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. It is only the individual restriction in question that is not block exempted, implying that individual assessment is required. Accordingly, the rule of severability applies to the restrictions set out in Article 5.
108. Article 5(1) provides that the block exemption shall not apply to the following three obligations:
- (a) Any direct or indirect obligation on the licensee to grant an exclusive licence to the licensor or to a third party designated by the licensor in respect of its own severable improvements to or its new applications of the licensed technology.

- (b) Any direct or indirect obligation on the licensee to assign to the licensor or to a third party designated by the licensor rights to severable improvements to or new applications of the licensed technology.
- (c) Any direct or indirect obligation on the licensee not to challenge the validity of intellectual property rights held by the licensor in the common market. However, the TTBER does cover the possibility for the licensor to terminate the licence agreement in the event that the licensee challenges the validity of the licensed technology.

The purpose of Article 5(1)(a), (b) and (c) is to avoid block exemption of agreements that may reduce the incentive of licensees to innovate.

109. Article 5(1)(a) and 5(1)(b) concerns exclusive grant backs or assignments to the licensor of severable improvements of the licensed technology. An improvement is severable if it can be exploited without infringing upon the licensed technology. An obligation to grant the licensor an exclusive licence to severable 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 his improvements, including by way of licensing to third parties. This is the case both where the severable 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) and (b) such obligations are not block exempted. However, the block exemption does cover non-exclusive grant back obligations in respect of severable improvements. This is so even where the grant back obligation is non-reciprocal, i.e. only imposed on the licensee, and where under the agreement the licensor is entitled to feed-on the severable improvements to other licensees. A non-reciprocal grant back obligation may promote innovation and the dissemination of new technology by permitting the licensor to freely determine whether and to what extent to pass on his own improvements to his licensees. A feed-on clause may also promote the dissemination of technology because each licensee knows at the time of contracting that he will be on an equal footing with other licensees in terms of the technology on the basis of which he is producing. Exclusive grant backs and obligations to assign non-severable improvements are not restrictive of competition within the meaning of Article 81(1) since non-severable improvements cannot be exploited by the licensee without the licensor's permission.
110. The application of Article 5(1)(a) and (b) 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 81. 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 likely it is that the licensee will be 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.

111. 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 his own technology. The sharing of all improvements between competitors may prevent each competitor from gaining a competitive lead over the other (see also paragraph 208 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.
112. The excluded restriction set out in Article 5(1)(c) concerns non-challenge clauses, i.e. 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 81(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⁽⁴⁸⁾. In such cases the conditions of Article 81(3) are unlikely to be fulfilled⁽⁴⁹⁾. However, the Commission takes a favourable view of non-challenge 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.

113. The TTBER covers the possibility for the licensor to terminate the licence agreement in the event of a challenge of the licensed technology. Accordingly, the licensor is not forced to continue dealing with a licensee that challenges the very subject matter of the licence agreement, implying that upon termination any further use by the licensee of the challenged technology is at the challenger's own risk. Article 5(1)(c) ensures, however, that the TTBER does not cover contractual obligations obliging the licensee not to challenge the licensed technology, which would permit the licensor to sue the licensee for breach of contract and thereby create a further disincentive for the licensee to challenge the validity of the licensor's technology. The provision thereby ensures that the licensee is in the same position as third parties.
114. 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 his 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 94 and 95 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 81(3) are generally not satisfied⁽⁵⁰⁾. Individual assessment is required.
115. 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 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 product market⁽⁵¹⁾. 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 his own technology or on research and development are normally considered to be restrictive of competition and not to satisfy the conditions of Article 81(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 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.
116. 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 81(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 81(1) for lack of an appreciable restrictive effect or satisfy the conditions of Article 81(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 81(1) only applies where the agreement reduces the licensee's incentive to improve and exploit his 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 his 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

117. 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 81(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.

118. The four conditions of Article 81(3) are cumulative and must all be fulfilled for the exception rule to be applicable⁽⁵²⁾. The block exemption can therefore be withdrawn where a particular agreement fails one or more of the four conditions.

119. Where the withdrawal procedure is applied, the withdrawing authority bears the burden of proving that the agreement falls within the scope of Article 81(1) and that the agreement does not satisfy all four conditions of Article 81(3). Given that withdrawal implies that the agreement in question restricts competition within the meaning of Article 81(1) and does not fulfil the conditions of Article 81(3), withdrawal is necessarily accompanied by a negative decision based on Articles 5, 7 or 9 of Regulation 1/2003.

120. According to Article 6, withdrawal may in particular be warranted in the following circumstances:

1. 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;
2. 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;
3. without any objectively valid reason the parties refrain from exploiting the licensed technology.

121. 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.

122. 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 him to exploit his 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

123. 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.

124. 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 81(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 Community Courts and by notices and previous decisions adopted by the Commission will give guidance on the application of Article 81 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.
125. 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.
126. 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 Community.
127. 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⁽⁵³⁾.
128. 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.
129. 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 81(1) AND 81(3) OUTSIDE THE SCOPE OF THE BLOCK EXEMPTION REGULATION

1. The general framework for analysis

130. 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 81(1) or which fulfil the conditions of Article 81(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 81(1) applies merely because the market share thresholds are exceeded. Individual assessment based on the principles described in these guidelines is required.
131. 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 81 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 constitute a real alternative and may therefore impose only a limited competitive constraint. The fact that an agreement falls outside the safe harbour described in this paragraph does not imply that the agreement is caught by Article 81(1) and, if so, that the conditions of Article 81(3) are not satisfied. As for the market share safe harbour of the TTBER, this additional safe harbour merely creates a negative presumption that the agreement is not prohibited by Article 81. Outside the safe harbour individual assessment of the agreement based on the principles developed in these guidelines is required.

1.1. The relevant factors

132. In the application of Article 81 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 of the licensed products;
- (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.

133. 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.

134. 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.

135. In analysing the competitive relationship between the parties it is sometimes necessary to go beyond the analysis set out in the above sections II.3 on market definition and II.4 on the distinction between competitors and non-competitors. 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 the licensee has a strong position on the product market, an agreement granting him 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.

136. 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.

137. 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 his demand for possible suppliers. Other indicators focus on the position of the buyer on his resale market, including characteristics such as a wide geographic spread of his outlets, and his 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⁽⁵⁴⁾.

138. 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 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.

139. 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.

140. In the assessment of particular restraints other factors may have to be taken into account. Such factors include cumulative effects, i.e. 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

141. The negative effects on competition on the market that may result from restrictive technology transfer agreements include the following:

1. 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;
2. foreclosure of competitors by raising their costs, restricting their access to essential inputs or otherwise raising barriers to entry; and
3. reduction of intra-technology competition between undertakings that produce products on the basis of the same technology.

142. Technology transfer agreements may reduce inter-technology competition, i.e. 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 208 below).

143. 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⁽⁵⁵⁾.

144. 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.
145. Licence agreements may also reduce intra-technology competition, i.e. 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**
146. 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 81(3), which contains an exception from the prohibition rule of Article 81(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.
147. The assessment of restrictive agreements under Article 81(3) is made within the actual context in which they occur⁽⁵⁶⁾ 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 81(3) applies as long as the four conditions are fulfilled and ceases to apply when that is no longer the case⁽⁵⁷⁾. However, when applying Article 81(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 81 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 committed to implement the agreement can thus lead to the agreement falling outside Article 81(1) or fulfilling the conditions of Article 81(3), as the case may be, for the period of time required to recoup the investment.
148. The first condition of Article 81(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⁽⁵⁸⁾. 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.
149. In the application of the indispensability test contained in Article 81(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 81(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 ⁽⁵⁹⁾, in which case it must be examined to what extent such inclusion gives rise to particular efficiencies or 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.

150. 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 ⁽⁶⁰⁾. 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 ⁽⁶¹⁾.
151. The last condition of Article 81(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 81(3) the relationship between Article 81(3) and Article 82 must be taken into account. According to settled case law, the application of Article 81(3) cannot prevent the application of Article 82 of the Treaty ⁽⁶²⁾. Moreover, since Articles 81 and 82 both pursue the aim of maintaining effective competition on the market, consistency requires that Article 81(3) be interpreted as precluding any application of the exception rule to restrictive agreements that constitute an abuse of a dominant position ⁽⁶³⁾.
152. The fact that the agreement substantially reduces one dimension of competition does not necessarily mean that competition is eliminated within the meaning of Article 81(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 81(3). Within the standard, suppliers may compete on price, quality and product features. However, in order for the agreement to comply with Article 81(3), it must be ensured that the agreement does not unduly restrict competition and does not unduly restrict future innovation.

2. The application of Article 81 to various types of licensing restraints

153. 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.
154. 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.
155. This section does not deal with obligations in licence agreements that are generally not restrictive of competition within the meaning of Article 81(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

156. 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 81(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. 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 81(1).

157. In the case of licence agreements between competitors it is recalled, see paragraphs and 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.

158. 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 81(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 81(3) are satisfied. Article 81(1) may also apply where reciprocal running royalties per unit increase as output increases. If the parties have a significant degree of market power, such royalties may have the effect of limiting output.

159. 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 81(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.

160. 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 2.7 below. In the case of appreciable foreclosure effects such agreements are caught by Article 81(1) and unlikely to fulfil the conditions of Article 81(3), unless there is no other practical way of calculating and monitoring royalty payments.

2.2. Exclusive licensing and sales restrictions

161. 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

162. 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.

163. Reciprocal exclusive licensing between competitors falls under Article 4(1)(c), which identifies market 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.
164. 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 81(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 81(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 81(1) is unlikely to be infringed.
165. Exclusive licensing between non-competitors — to the extent that it is caught by Article 81(1) ⁽⁶⁴⁾ — is likely to fulfil the conditions of Article 81(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.
166. 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 agreements are likely to be caught by Article 81(1) and unlikely to fulfil the conditions of Article 81(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.
167. 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 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 ⁽⁶⁵⁾. 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
168. Also as regards sales restrictions there is an important distinction to be made between licensing between competitors and between non-competitors.
169. 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 81(1) and are unlikely to fulfil the conditions of Article 81(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.
170. 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 81(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 81(3). This may be the case where the licensor has a relatively weak market position in the territory where he exploits himself 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 his 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 him and has to make significant investments in order to efficiently exploit the licensed technology.

171. 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 81(1) when the parties have a significant degree of market power. However, the restraint is likely to be indispensable within the meaning of Article 81(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.

172. 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 fall outside Article 81(1) where on the basis of objective factors it can be concluded that in the absence of the sales restrictions licensing would not occur. A technology owner cannot normally be expected to create direct competition with himself on the basis of his own technology. In other cases sales restrictions on the licensee may be caught by Article 81(1) 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.

173. Sales restrictions on the licensor, when caught by Article 81(1), are likely to fulfil the conditions of Article 81(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 81(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.

174. 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 81(1) when the individual licensee has a significant degree of market power. Such restrictions, however, may fulfil the conditions of Article 81(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), cf. paragraph 101 above, when they exceed two years from the date on which the licensee benefiting from the restrictions first put the product incorporating the licensed technology on the market inside his exclusive territory. Passive sales restrictions exceeding this two-year period are unlikely to fulfil the conditions of Article 81(3).

2.3. Output restrictions

175. Reciprocal output restrictions in licence agreements between competitors constitute a hardcore restriction covered by Article 4(1)(b) of the TTBER (cf. point 82 above). Article 4(1)(b) does not cover output restrictions 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 81(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 81(3) it must also be taken into account that such restrictions may be necessary in order to induce the licensor to disseminate his technology as widely as possible. For instance, a licensor may be reluctant to license his competitors if he 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 81(3). However, this is unlikely to be the case where the parties have substantial market power.

176. 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.
 177. 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.
 178. 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 him from selling into a territory or customer group reserved for the licensor.
- #### 2.4. Field of use restrictions
179. 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. 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.
 180. Given that field of use restrictions are block exempted 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 licensed product.
 181. 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 his own technology, by preventing him from exploiting it himself, including by way of licensing to others. In the case of a sole licence 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 2.2.1 above. In particular, for licensing between competitors, this means that reciprocal exclusive licensing is hardcore under Article 4(1)(c).

182. Field of use restrictions may have pro-competitive effects by encouraging the licensor to license his technology for applications that fall outside his main area of focus. If the licensor could not prevent licensees from operating in fields where he exploits the technology himself 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 him 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 his own technology without fearing infringement claims by the licensor.
183. 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 product market or technical field of use and the other party is permitted to use the other licensed technology within another 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 his 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 81(1). Symmetrical field of use restrictions, i.e. 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 81(1). Such agreements are unlikely to restrict competition that existed in the absence of the agreement. Article 81(1) is also unlikely to apply in the case of agreements that merely enable the licensee to develop and exploit his 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 his 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.
184. 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 himself 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 he does not want to exploit the technology himself. If the licensor could not prevent licensees from operating in fields where the licensor exploits the technology himself, it would be likely to create a disincentive for the licensor to licence.
185. 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
186. A captive use restriction can be defined as an obligation on the licensee to limit his production of the licensed product to the quantities required for the production of his own products and for the maintenance and repair of his 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 his 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.
187. In the case of licence agreements between competitors a restriction that imposes on the licensee to produce under the licence only for incorporation into his own products prevents him 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 his 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.

188. 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.
189. 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 he would create direct competition to himself on the component market. In such cases a captive use restriction is normally either not restrictive of competition or covered by Article 81(3). It is a condition, however, that the licensee is not restricted in selling the licensed product as replacement parts for his own products. The licensee must be able to serve the after market for his own products, including independent service organisations that service and repair the products produced by him.
190. Where the licensor is not a component supplier on the relevant 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 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.
193. 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 his 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⁽⁶⁶⁾.

2.6. Tying and bundling

191. 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 him (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.
194. 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 81(3). Where 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 his technology or his 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.
192. Article 3 of the TTBER, which limits the application of the block exemption by market share thresholds, ensures

195. 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 81(1), the conditions of Article 81(3) are likely to be fulfilled even above the market share thresholds.

2.7. Non-compete obligations

196. 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.

197. 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.

198. 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 %.

199. 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 IV.2.1 of the Guidelines on Vertical Restraints ⁽⁶⁷⁾.

200. 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.

201. 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.
202. 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 81(1) because of an appreciable foreclosure effect, it may be necessary in order to benefit from Article 81(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.
203. 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 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 and non-assertion agreements
204. Licensing may serve as a means of settling disputes or avoiding that one party exercises his intellectual property rights to prevent the other party from exploiting his own technology. Licensing including cross licensing in the context of settlement agreements and non-assertion agreements is not as such restrictive of competition since it allows the parties to exploit their technologies post agreement. However, the individual terms and conditions of such agreements may be caught by Article 81(1). Licensing in the context of settlement agreements is treated like other licence agreements. In the case of technologies that from a technical point of view are substitutes, it is therefore necessary to assess to what extent it is likely that the technologies in question are in a one-way or two-way blocking position (cf. paragraph 32 above). If so, the parties are not deemed to be competitors.
205. The block exemption applies provided that the agreement does not contain any hardcore restrictions of competition as set out in Article 4 of the TTBER. The hardcore list of Article 4(1) may in particular apply where it was clear to the parties that no blocking position exists and that consequently they are competitors. In such cases the settlement is merely a means to restrict competition that existed in the absence of the agreement.
206. In cases where it is likely that in the absence of the licence the licensee could be excluded from the market, the agreement is generally pro-competitive. Restrictions that limit intra-technology competition between the licensor and the licensee are often compatible with Article 81, see section 2 above.
207. 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 81(1). Where the parties have a significant degree of market power and the agreement imposes restrictions that clearly go beyond what is required in order to unblock, the agreement is likely to be caught by Article 81(1) even if it is likely that a mutual blocking position exists. Article 81(1) is particularly likely to apply where the parties share markets or fix reciprocal running royalties that have a significant impact on market prices.
208. Where under the 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 81(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 81(3). It is particularly unlikely that the restriction can be considered indispensable within the meaning of the third condition of Article 81(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.

209. In the context of a settlement and non-assertion agreement, non-challenge clauses are generally considered to fall outside Article 81(1). It is inherent in such agreements that the parties agree not to challenge *ex post* the intellectual property rights covered by the agreement. Indeed, the very purpose of the agreement is to settle existing disputes and/or to avoid future disputes.

4. Technology pools

210. 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.

211. There is no inherent link between technology pools and standards, but in some cases the technologies in the pool support (wholly or partly) a *de facto* or *de jure* industry standard. When technology pools do support an industry standard they do not necessarily support a single standard. Different technology pools may support competing standards⁽⁶⁸⁾.

212. 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 (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. The individual licences granted by the pool to third party licensees, however, are treated like other licence agreements, which are block exempted when the conditions set out in the TTBER are fulfilled, including the requirements of Article 4 of the TTBER containing the list of hardcore restrictions.

213. Technology pools may 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.

214. Technology pools can also 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 where in order to operate on the market licences need to be obtained from a significant number of licensors. 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.

4.1. The nature of the pooled technologies

215. 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.

216. Two technologies⁽⁶⁹⁾ 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. A technology is essential as opposed to non-essential if there are no 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. A technology for which there are no substitutes, remains essential as long as the technology is covered by at least one valid intellectual property right. Technologies that are essential are by necessity also complements.

217. 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 arrangement 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.
218. 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 employing both technologies as opposed to employing only one of them.
219. The inclusion in the pool of substitute technologies restricts inter-technology competition and amounts to collective bundling. Moreover, where the pool is substantially composed of substitute technologies, the arrangement amounts to price fixing between competitors. As a general rule the Commission considers that the inclusion of substitute technologies in the pool constitutes a violation of Article 81(1). The Commission also considers that it is unlikely that the conditions of Article 81(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. It is not sufficient that the parties remain free to license independently. In order not to undermine the pool, which allows them to jointly exercise market power, the parties are likely to have little incentive to do so.
220. When a pool is composed only of technologies that are essential and therefore by necessity also complements, the creation of the pool as such generally falls outside Article 81(1) irrespective of the market position of the parties. However, the conditions on which licences are granted may be caught by Article 81(1).
221. Where non-essential but complementary 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 also forces licensees to pay for technology that they may not need. The inclusion of complementary patents thus amounts to collective bundling. When a pool encompasses non-essential technologies, the agreement is likely to be caught by Article 81(1) where the pool has a significant position on any relevant market.
222. 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. In the assessment of technology pools comprising non-essential technologies, i.e. technologies for which substitutes exist outside the pool or which are not necessary in order to produce one or more products to which the pool relates, 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;
 - (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. In the latter case it is avoided that technologies which are not essential to a particular product or process are 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.

4.2. Assessment of individual restraints

223. The purpose of this section is to address a certain number of restraints that in one form or another are commonly found in technology pools and which need to be assessed in the overall context of the pool. It is recalled, cf. paragraph 212 above, that the TTBER applies to licence agreements concluded between the pool and third party licensees. This section is therefore limited to addressing the creation of the pool and licensing issues that are particular to licensing in the context of technology pools.

224. In making its assessment the Commission will be guided by the following main principles:

1. The stronger the market position of the pool the greater the risk of anti-competitive effects.
2. Pools that hold a strong position on the market should be open and non-discriminatory.

3. Pools should not unduly foreclose third party technologies or limit the creation of alternative pools.

225. Undertakings setting up a technology pool that is compatible with Article 81, and any industry standard that it may support, are normally free to negotiate and fix royalties for the technology package 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 and may in certain circumstances lead to more efficient outcomes. In certain circumstances it may be more efficient if the royalties are agreed before the standard is chosen and not after the standard is decided upon, to avoid that the choice of the standard confers 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. Where the selection of technologies to be included in the pool is carried out by an independent expert this may further competition between available technological solutions.

226. Where the pool has a dominant position on the market, royalties and other licensing terms should be fair and non-discriminatory 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 should not depend on whether they are licensors or not. The Commission will therefore take into account whether licensors are also subject to royalty obligations.

227. Licensors and licensees must be free to develop competing products and standards and 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 a pool supports 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.

228. 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 feed on and benefit from improvements to the pooled technology. It is legitimate for the parties to ensure that the exploitation of the pooled technology cannot be held up by licensees that hold or obtain essential patents.
229. One of the problems identified with regard to patent pools is the risk that they shield invalid patents. Pooling raises the costs/risks for a successful challenge, because the challenge fails 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 order to limit this risk any right to terminate a licence in the case of a challenge must be limited to the technologies owned by the licensor who is the addressee of the challenge and must not extend to the technologies owned by the other licensors in the pool.
- #### 4.3. The institutional framework governing the pool
230. 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.
231. 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 open and non-discriminatory and reflect the value of the licensed technology than when the pool is controlled by licensor representatives.
232. Another relevant factor 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.
233. 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 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.
234. 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⁽⁷⁰⁾. 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.
235. Finally, it is relevant to take account of the 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.

(1) OJ L 123, 27.4.2004. The TTBER replaces Commission Regulation (EC) No 240/96 of 31 January 1996 on the application of Article 85(3) of the Treaty to certain categories of technology transfer agreements (OJ L 31, 9.2.1996, p. 2).

(2) 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, not yet published.

(3) Council Regulation (EC) No 1/2003 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty (OJ L 1, 4.1.2003, p. 1).

(4) In the following the term 'agreement' includes concerted practices and decisions of associations of undertakings.

(5) See Commission Notice on the concept of effect on trade between Member States contained in Articles 81 and 82 of the Treaty, not yet published.

- (6) In the following the term 'restriction' includes the prevention and distortion of competition.
- (7) This principle of Community exhaustion is for example enshrined in Article 7(1) of Directive 104/89/EEC to approximate the laws of the Member States relating to trade marks (OJ L 40, 11.2.1989, p. 1), 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 Community under that trade mark by the proprietor or with his consent.
- (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.
- (10) The methodology for the application of Article 81(3) is set out in the Commission Guidelines on the application of Article 81(3) of the Treaty cited in note 2.
- (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.
- (13) See in this respect the judgment in *Société Technique Minière* cited in note 11 and Case 258/78, *Nungesser*, [1982] ECR 2015.
- (14) See in this respect e.g. Case C-49/92 P, *Anic Partecipazioni*, [1999] ECR I-4125, paragraph 99.
- (15) 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.
- (16) See the judgment in *John Deere*, [1998] cited in note 11.
- (17) 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.
- (18) See Article 1(2) of Council Regulation No 1/2003 cited in note 3.
- (19) Commission notice on the definition of the relevant market for the purposes of Community competition law (OJ C 372, 9.12.1997, p. 5).
- (20) As to these distinctions see also Commission Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements (OJ C 3, 6.1.2001, p. 2, paragraphs 44 to 52).
- (21) See to that effect paragraphs 50 to 52 of the Guidelines on horizontal cooperation agreements, cited in the previous note.
- (22) *Idem*, paragraph 51.
- (23) See in this respect the Notice on agreements of minor importance cited in note 17.
- (24) According to Article 3(2) of Regulation 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.
- (25) 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.
- (26) See recital 19 of the TTBER and further section 2.5 below.
- (27) OJ C 1, 3.1.1979, p. 2.
- (28) See paragraph 3 of the subcontracting notice.
- (29) See in this respect Commission Decision in *Moosehead/Whitbread* (OJ L 100, 20.4.1990, p. 32).
- (30) See in this respect Case 262/81, *Coditel (II)*, [1982] ECR 3381.
- (31) OJ L 336, 29.12.1999, p. 21.
- (32) OJ L 304, 5.12.2000, p. 3.
- (33) OJ L 304, 5.12.2000, p. 7.
- (34) See note 31.
- (35) See the guide 'Competition policy in Europe — The competition rules for supply and distribution agreements', 2002.
- (36) OJ C 291, 13.10.2000, p. 1, and note 31.
- (37) See paragraph 29 above.

- (³⁸) The reasons for this calculation rule are explained in paragraph 23 above.
- (³⁹) See e.g. the case law cited in note 15.
- (⁴⁰) See in this respect paragraph 98 of the Guidelines on the application of Article 81(3) of the Treaty cited in note 2.
- (⁴¹) 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.
- (⁴²) See in this respect Case 193/83, *Windsurfing International*, [1986] ECR 611, paragraph 67.
- (⁴³) For a general definition of active and passive sales, reference is made to paragraph 50 of the Guidelines on vertical restraints cited in note 36.
- (⁴⁴) Field of use restrictions are further dealt with in section IV.2.4 below.
- (⁴⁵) This hardcore restriction applies to licence agreements concerning trade within the Community. As regards agreements concerning exports outside the Community or imports/re-imports from outside the Community see Case C-306/96, *Javico*, [1998] ECR I-1983.
- (⁴⁶) See in this respect paragraph 77 of the judgment in *Nungesser* cited in note 13.
- (⁴⁷) See in this respect Case 26/76, *Metro (I)*, [1977] ECR 1875.
- (⁴⁸) If the licensed technology is outdated no restriction of competition arises, see in this respect Case 65/86, *Bayer v Sülthofer*, [1988] ECR 5249.
- (⁴⁹) As to non-challenge clauses in the context of settlement agreements see point 209 below.
- (⁵⁰) See paragraph 14 above.
- (⁵¹) See paragraphs 66 and 67 above.
- (⁵²) See in this respect paragraph 42 of the Guidelines on the application of Article 81(3) of the Treaty, cited in note 2.
- (⁵³) See in this respect paragraph 8 of the Commission Notice on agreements of minor importance, cited in note 17.
- (⁵⁴) See in this respect Case T-228/97, *Irish Sugar*, [1999] ECR II-2969, paragraph 101.
- (⁵⁵) See in this respect paragraph 23 of the Guidelines on horizontal cooperation agreements, cited in note 20.
- (⁵⁶) See Joined Cases 25/84 and 26/84, *Ford*, [1985] ECR 2725.
- (⁵⁷) See in this respect for example Commission Decision in *TPS* (OJ L 90, 2.4.1999, p. 6). Similarly, the prohibition of Article 81(1) also only applies as long as the agreement has a restrictive object or restrictive effects.
- (⁵⁸) Cited in note 36. See in particular paragraphs 115 *et seq.*
- (⁵⁹) As to these concepts see section IV.4.1 below.
- (⁶⁰) See paragraph 85 of the Guidelines on the application of Article 81(3) of the Treaty, cited in note 2.
- (⁶¹) *Idem*, paragraphs 98 and 102.
- (⁶²) See paragraph 130 of the judgment cited in note 2. Similarly, the application of Article 81(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 81(1), see to that effect Case C-309/99, *Wouters*, [2002] ECR I-1577, paragraph 120.
- (⁶³) 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 2 above.
- (⁶⁴) See the judgment in *Nungesser* cited in note 13.
- (⁶⁵) 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.
- (⁶⁶) For the applicable analytical framework see section 2.7 below and paragraphs 138 *et seq.* of the Guidelines on Vertical Restraints cited in note 36.
- (⁶⁷) See note 36.
- (⁶⁸) 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.
- (⁶⁹) The term 'technology' is not limited to patents. It covers also patent applications and intellectual property rights other than patents.
- (⁷⁰) See in this respect the judgment in *John Deere* cited in note 11.
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