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Are Article 82 EC and Intellectual Property Interoperable? The State of the Law Pending the Judgment in *Microsoft v. Commission*

Maurits Dolmans, Robert O'Donoghue, and Paul-John Loewenthal

The objectives of intellectual property rights (IPR) and competition law are essentially the same: both promote innovation to the benefit of consumers. IPRs are, however blunt instruments that strike the right balance in general, but in exceptional individual situations may not achieve (and may sometimes even obstruct) the innovation policy goal. Competition law is a useful tool to redress the balance in these situations, and the European Commission and EC courts have recognized that in exceptional cases the exercise of IPRs may infringe competition law. This article examines the extent to which Article 82 EC restricts the use of IPRs, pending the judgment of the CFI in Case T-201/04, *Microsoft v. Commission*.

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I. Introduction

Despite the lack of complete harmonization in respects of intellectual property rights (IPR), EC law has made significant encroachments on the entitlements of IPR holders under the free movement of goods rules. More recently, it could be argued that competition law has also been used as a harmonization tool to take off the sharp edges of intellectual property law. This article examines the extent to which Article 82 of the EC Treaty, prohibiting abuse of a dominant position, restricts the use of IPRs and in particular to what extent it requires a firm to grant a compulsory license of its IPRs to third parties. When this article was originally planned, the authors expected to have the judgment of the European Court of First Instance in Case T-201/04, *Microsoft v. Commission*, which is expected to deal with the interface between intellectual property and competition, but the wheels of justice turn more slowly than expected. This article is, therefore, an overview of the current status, with particular reference to the arguments made in the *Microsoft EC* hearings and the European Commission's 2004 Decision (2004 MS Decision), that can be used as background when judgment is rendered.[1]

II. Competition Law and the Essential Function of IPR

There is considerable ongoing debate about the role of IPRs as engines driving innovation. The traditional goal of IPRs is perfectly summarized by Abraham Lincoln's statement that patent law "secured to the inventor, for a limited time, the exclusive use of his invention; and thereby added the fuel of interest to the fire of genius, in the discovery and production of new and useful things."[2] On the other hand, concern has been expressed that too many IPRs are being granted and for overly broad subject matters. There is testimony, for example in the context of the U.S. agencies' ongoing review of the interface between intellectual property (IP) and antitrust laws, that patent thickets can stifle innovation and increase costs.[3] There is also evidence that such strategies are pursued deliberately for the

1 Commission Decision of Mar. 24, 2004 [hereinafter 2004 MS Decision], Case COMP C-3/37.792, Commission v. Microsoft Corporation [hereinafter *Microsoft EC*]. Findings of fact and law by the Commission in its 2004 MS Decision are subject to dispute before the CFI.

2 A. Lincoln, *Lecture on Discoveries and Inventions*, *in* Collected Works of Abraham Lincoln (R. Basler, ed., 1953) (1858).

3 *See, e.g.*, U.S. Fed. Trade Comm'n, To Promote Innovation: The Proper Balance of Competition & Patent Law and Policy 165 (Oct. 2003), *available at* http://www.ftc.gov/os/2003/10/innovationrpt.pdf ("Many panelists and participants expressed the view that software and Internet patents are impeding innovation."). And also Shapiro:

> In short, our patent system, while surely a spur to innovation overall, is in danger of imposing an unnecessary drag on innovation by enabling multiple rights owners to tax new products, processes and even business methods. The vast number of patents currently being issued creates a very real danger that a single product or service will

sole purpose of excluding rivals, that a much larger number of patents have been granted in recent years, that the scope of such patents is broader than in the past, and that a greater number of patents receive unmeritorious protection.[4]

Similarly, the open source software community (which relies on the existence of copyright to create a framework within which its license provisions are enforceable) is scathing about the role of patents as potential threats to innovation.[5] Criticism is particularly pronounced in the United States: "While there is a formal process of patent examination, in practice the system seems more akin to a registration system: In many cases it appears that a determined patentee can get almost any award he seeks."[6]

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footnote 3 cont'd

> infringe on many patents. Worse yet, many patents cover products or processes already being widely used when the patent issued, making it harder for the companies actually building businesses and manufacturing products to invent around these patents. Add in the fact that a patent holder can seek injunctive relief, i.e., can threaten to shut down the operations of the infringing company, and the possibility for hold up becomes all too real.

C. Shapiro, *Navigating the Patent Thicket: Cross Licences, Patent Pools and Standard Setting*, in Innovation Policy and the Economy (A. Jaffe et al. eds., 2001), *available at* http://faculty.haas.berkeley.edu/shapiro/thicket.pdf

4 Evidence submitted to the U.S. Federal Trade Commission suggested that companies sometimes reallocate significant portions of developers' resources to increase their patent portfolio for purely defensive reasons and that the engineers' time dedicated to assisting in the filing of defensive patents, which "have no...innovative value in and of themselves," could have been spent on developing new technologies (*id*. at 9).

5 For example, at the OSDL Enterprise Linux Summit held from January 31 to February 2, 2005, Linus Torvalds, the developer of the Linux kernel, stated:

> Are software patents useful? That's pretty clearly not the case. Software patents are clearly a problem and one that the open-source community has been aware of during the last five years. And proprietary vendors are starting to see it's a problem too.

Brian Behlendorf, co-founder of the Apache Web server software, opined:

> If you could not patent software algorithms or ideas, how much of the money spent on writing software would go away? How much innovation would disappear? How much investment in that innovation would disappear? I don't think any would disappear?

Mitch Kapor, chairman of the Mozilla foundation, referred to use of patents as an exclusionary weapon:

> We have to be concerned about [...] the use of patent WMDs. That will be the last stand of Microsoft [...]. If totally pushed to the wall because their business model no longer holds up in an era in which open source is an economically superior way to produce software, and the customers understand it, and it's cheaper and more robust, and you've got the last monopolist standing, of course they're going to unleash the WMDs. How can they not?

See also G. Ghidini, Intellectual Property & Competition Law: The Innovation Nexus (2006).

6 A. Jaffe & J. Lerner, Innovation & Its Discontents 11-21, 142 (2004). *See also* J. Cohen & M. Lemley, *Patent Scope and Innovation in the Software Industry*, 89 Cal. L. Rev. 1, 12-13 (2001); R. Merges, *As Many As Six Impossible Patents Before Breakfast: Property Rights for Business Concepts and Patent System Reform*, 14 Berkley Tech. L.J. 577, 589-91 (1999).

Some European courts appear to share this skepticism. Lord Justice Jacob wrote highly readable and controversial comments recently in his U.K. Court of Appeal judgment in the *Macrossan* case, rejecting business model and software patents:

> "18. ... people have been getting patents for these subject-matters in the USA. Since they can get them there, they must as a commercial necessity apply for them everywhere. If your competitors are getting or trying to get the weapons of business method or computer program patents you must too. An arms race in which the weapons are patents has set in. The race has naturally spread worldwide ... 19. ... Just as with arms, merely because people want them is not sufficient reason for giving them. 20. ... it is far from certain that they [software patents] have been what Sellars and Yeatman would have called a "Good Thing." *The patent system is there to provide a research and investment incentive but it has a price. That price (what economists call "transaction costs") is paid in a host of ways: ...the impediment to competition*, ... the cost of uncertainty, litigation costs and so on. There is, so far as we know, *no really hard empirical data showing that the liberalisation of what is patentable in the USA has resulted in a greater rate of innovation or investment in the excluded categories. Innovation in computer programs, for instance, proceeded at an immense speed for years before anyone thought of granting patents for them as such.* There is evidence, in the shape of the mass of US litigation about the excluded categories, that they have produced much uncertainty. (emphasis added)"[7]

As the reference to "the impediment to competition" suggests, IPRs and competition law at first sight appear to have divergent effects: IPRs grant a statutory monopoly or exclusive right, and the right to exclude others from using the subject matter of the right; competition law prevents, among other things, the exercise of monopoly power and the unlawful exclusion of competitors. On closer examination, however, the objectives of IPRs and competition law are essentially the same. Both sets of rules seek to promote innovation and investment to the benefit of consumers. This basic consistency has been recognized by the European Commission (Commission), the European Court of First Instance (CFI), and the European Court of Justice (ECJ). For example, in *Magill*—the first case dealing with the circumstances in which a refusal to license an IPR could be contrary to Article 82—Advocate General Gulmann stated that "it must not be forgotten ... copyright law—like other intellectual property rights—also serves to

7 *See* Aerotel Ltd. v. Telco Holdings Ltd & Ors, rev. 1, 2006 E.W.C.A. Civ. 1371 (Oct. 27, 2006), *available at* http://www.patent.gov.uk/2006ewcaciv1371.pdf (invention—a software-based online system which automated the completion of forms—could not be patented because it was "a computer program as such").

promote competition."[8] In other words, the common objectives of intellectual property and competition laws are to promote innovation and enhance consumer welfare.[9]

Notwithstanding this common goal of intellectual property and competition laws, the Commission and the EC courts have recognized that, in exceptional individual cases, IPRs can be too blunt an instrument, and the unrestrained exercise of IP may in these exceptional cases be found incompatible with the policy goals of competition rules. In recent years, the most controversial aspect concerns whether and in what circumstances a refusal to license an IPR may constitute an abuse of a dominant position contrary to Article 82. In cases such as *Volvo/Veng*,[10] *Renault*,[11] *Magill*,[12] *Ladbroke*,[13] and, most recently, *IMS*[14] and *Microsoft EC*, the Commission and the EC courts have developed a series of principles to address this question. These cases draw heavily on the essential facilities doctrine in U.S. law—which in exceptional cases requires firms to share facilities that cannot be duplicated by rivals—and the decisional practice and case law that have admitted

On closer examination the objectives of IPRs and competition law are essentially the same. Both sets of rules seek to promote innovation and investment to the benefit of consumers.

8 AG Opinion (Gulmann) of Jun. 1, 1994, Joined Cases C-241/91 P and C-242/91 P, Radio Telefis Eireann and Independent Television Publications Limited (RTE & ITP) v. Commission [hereinafter *Magill*], 1995 E.C.R. I-00743, at fn. 10.

9 This is also recognized under U.S. law. *See* Atari Games Corp.v. Nintendo of America, Inc., 897 F.2d 1572 (Fed. Cir.1990), in which the U.S. Court of Appeals for the Second Circuit held that:

> the aims and objectives of patent and anti trust laws may seem at first glance, wholly at odds. However, the two bodies of law are actually complementary, as both are aimed at encouraging, innovation, industry and competition.

10 Case 238/87, AB Volvo v. Erik Veng (UK) Ltd. [hereinafter *Volvo/Veng*], 1988 E.C.R. 6211.

11 Case 53/87, Consorzio italiano della componentistica di ricambio per autoveicoli and Another v. Renault, 1988 E.C.R. 6039.

12 *See* Case IV/31.851, Magill TV Guide/ITP, BBC and RTE, 1989 O.J. (L 78) 43; Case T-69/89, Radio Telefis Eireann (RTE) v. Commission, 1991 E.C.R. II-485; Case 70/89, The British Broadcasting Corporation and BBC Enterprises Ltd. (BBC) v. Commission, 1991 E.C.R. II-535; and Case T-76/89, Independent Television Publications Limited (ITP) v. Commission, 1991 E.C.R. II-575 (*aff'd in* ECJ Judgment of Apr. 6, 1995, Joined Cases C-241/91 P and C-242/91 P, Radio Telefis Eireann and Independent Television Publications Limited (RTE & ITP) v. Commission (*Magill*) [hereinafter *Magill* ECJ Judgment], 1995 E.C.R. I-00743).

13 Case T-504/93, Tiercé Ladbroke SA v. Commission, 1997 E.C.R. II-923.

14 NDC Health v. IMS Health, 2002 O.J. (L 59) 18.

exceptions to the rights of owners of physical property to refuse to deal.[15] The following sections discuss these principles.

It is a fundamental principle of EC law, enshrined in Article 295 (ex 222) of the EC Treaty and confirmed by the EC courts,[16] that the existence of national IPRs cannot be affected by the provisions of the EC Treaty. Since the existence of property is untouchable under Article 295 EC, the ECJ had to work its way around that provision. It did so by distinguishing "existence" from the "exercise" of IPRs, allowing the Commission and the Court to curb the latter where the use of IPRs could come into conflict with the policy goals of IPR and competition rules.[17] A similar principle—that curtailing the use of the right is not equivalent to eliminating it—is found also in other legal systems. The U.S. Court of Appeals for the DC Circuit stated in *United States v. Microsoft Corp* (*Microsoft III*): "The company claims an absolute and unfettered right to use its intellectual property as it wishes. ... That is no more correct than the proposition that use of one's personal property, such as a baseball bat, cannot give rise to tort liability."[18]

The existence/exercise dichotomy is helpful to get around Article 295 EC, but is not a useful balancing tool. The ECJ therefore developed the notion of the essential function of IPRs, to discern the essential policy objective of the IPR that free movement rules and competition law should respect. This policy goal, as indicated above, is to reward and encourage the initiative of creating the

15 *See* Port of Rødby, 1994 O.J. (L 55) 52; ACI - Channel Tunnel, 1994 O.J. (L 224) 28; European Night Services, 1994 O.J. (L 259) 20; Eurotunnel, 1994 O.J. (L 354) 66; IJsselcentrale, 1991 O.J. (L 28) 32; Irish Continental Group CCI Morlaix-Port of Roscoff, XXVth Competition Policy Report 43 (1996); Press Release, European Commission, IP/96/456, Port of Elsinore (May 1996); and, Case C-7/97, Oscar Bronner v. Mediaprint [hereinafter *Bronner*], 1998 E.C.R. I-7791.

Among the better articles on essential facilities are R. Subiotto *The Right to Deal with Whom One Pleases under EEC Competition Law: A Small Contribution to a Necessary Debate*, 6 Eur. Competition L. Rev. 234 (1992); K. Glazer & A. Lipsky, *Unilateral Refusals to Deal Under Section 2 of the Sherman Act*, 63 Antitrust L.J. 749 (1995); J. Temple Lang, *The Principle of Essential Facilities in European Community Competition Law—The Position Since Bronner*, 1 J. Network Indus. 375 (2000); and J. Temple Lang, *Defining Legitimate Competition: Companies' Duties to Supply Competitors, and Access to Essential Facilities*, 18 Fordham Int'l L.J. 437 (1994).

16 *See, e.g.,* Case 262/82, Coditel II, 1982 E.C.R. 3381, at para. 13 ("the existence of a right conferred by the legislation of a Member State in regard to the protection of artistic and intellectual property ... cannot be affected by the provisions of the Treaty."). *See also* Case 144/81, Keurkoop BV v. Nancy Kean Gifts BV, 1982 E.C.R. 2853, at para. 18; *Volvo/Veng*, *supra* note 10; and Case 53/87, Consorzio Italiano Della Componentistica Di Ricambio Per Autoveicoli (CICRA) and Maxicar v. Renault, 1988 E.C.R. 6039, at para. 10.

17 *See, e.g.,* Case 40-70, Sirena S.r.l. v. Eda S.r.l. and others, 1971 E.C.R. 69 and Cases 56 and 58/64, Consten and Grundig v. Commission, 1966 E.C.R. 429.

18 United States v. Microsoft Corp. [hereinafter *Microsoft III*], 253 F.3d 34 (D.C. Cir. 2001).

material and the investment in producing and marketing it.[19] If the exercise goes beyond what is necessary to fulfill the essential function, competition law may interfere.[20] If, on the other hand, an IPR owner is deprived of those rewards, or uses an IPR to stifle creative rivals, there is concern that the incentive to innovate may disappear. These principles are summarized as follows in a leading textbook on IPRs:

> "It can certainly be argued that this fencing off of intangible subject matter fulfils the economic function equivalent to that of ownership of physical property, because otherwise the incentive to optimise the value of information will be impaired or destroyed. Innovators will wait instead to be imitators and the dynamic processes which would have generated new ideas will disappear; in the end there will be little or nothing different to imitate."[21]

Thus, any interference with IPRs must be based on exceptional, clearly defined circumstances that do not materially affect incentives to innovate and therefore chill socially desirable innovation. Such circumstances may exist where an IPR is used in a manner not consistent with the essential function of IPRs, for instance, an exercise that cannot reasonably be deemed to maintain the IPR owner's research and development (R&D) incentives, especially if that exercise also stifles innovation by others in the industry.

There are indications that some industries such as the pharmaceutical and medical devices sectors may be more dependent on IPRs than others such as the information technology (IT) sector, where open source appears to have some measure of success in certain areas and non-IP intensive products such as the Internet have become ubiquitous. For the time being it appears that legally at least, all industries are treated equally, although it would be interesting to have better quantitative comparative analysis of the role of IPRs in different sectors.

This is not to say that all IPRs are also necessarily created equal. In many cases, IP law imposes conditions and limitations. For instance, the protection may be available only for a limited duration; copyrighted works must be original and only protect the expression of an idea, not its subject matter; patents must be innova-

19 *See, e.g.*, AG Opinion in *Magill*, *supra* note 8. *See also Magill* ECJ Judgment, *supra* note 12, at para. 28 (referring to the essential function of copyright as "to protect the moral rights in the work and ensure a reward for the creative effort").

20 *Id.* at para. 30.

21 W. Cornish, Intellectual Property: Patents, Copyright, Trade Marks & Allied Rights 353 (4th ed. 1999).

tive and novel with industrial application, etc. It is thought that where the legislature has struck a balance, competition authorities and courts should be reluctant in changing that balance absent exceptional circumstances. Some argue that antitrust agencies and courts have greater freedom in respect of property as to which the legislature has struck no balance—as is the case for trade secrets in the European Community. While even with trade secrets it is important to assess the impact on innovation before imposing licenses, in the absence of a unified body of trade secret law in the European Union, competition law may play a greater role in striking the balance. The *Microsoft EC* judgment will hopefully clarify that.

III. Precedent on Abusive Refusals to License

Article 82 bans "any abuse by one or more undertaking of a dominant position ... in so far as it may affect trade between Member States..." Article 82 provides no definition of "abuse", but lists four examples. It is settled case law that this list "is not an exhaustive enumeration of the abuses of a dominant position prohibited by the Treaty."[22] Article 82 and the relevant case law suggest that, broadly speaking, two types of abuse can be identified: exclusionary and exploitative abuses. The former includes conduct that limits rivals' production, markets, or technical development, discrimination that places rivals at a competitive disadvantage, and tying that creates barrier to entry in tied markets. The latter concerns excessive pricing, the imposition of unfair trading conditions and tying that imposes supplementary obligations on customers.

As regards exclusionary abuses, an overview of the case law viewed in light of Article 82(b) suggests that establishing an infringement of Article 82 requires evidence of the following four factors:

- Limitation of rivals' production, markets or technical development;
- Hindrance of maintenance or growth of competition;
- Prejudice to consumers; and
- Absence of objective, proportional justification.

These principles apply a fortiori to refusals to supply. There is, as a general rule of EC competition law, no duty on dominant companies to deal with or supply third parties. In the context of IPRs, there is also, as a general principle, no duty on dominant firms to license third parties.[23] Requiring a dominant company to contract with a third party against its will (whether by licensing arrangements or

22 Joined Cases C-395/96 P and C-396/96 P, Compagnie Maritime Belge Transport v. Commission, 2000 E.C.R. I-1365, at para. 112.

23 *Volvo/Veng*, *supra* note 10, at para. 8. See also J. Faull & A. Nikpay, The EC Law of Competition 157-8 (1999).

otherwise) is therefore an exceptional measure that should be used sparingly by competition authorities.

Each refusal to deal must be looked at on its merits in light of the specific circumstances of the market in question, including the degree of market power of the dominant firm, any applicable legislation or regulation and the types of consumer harm that might arise in that particular market setting. As Advocate General Jacobs recently stated in *Syfait*, "the factors which go to demonstrate that an undertaking's conduct in refusing to supply is either abusive or otherwise are highly dependent on the specific economic and regulatory context in which the case arises."[24]

This is not to say, however, that the conditions for an abusive refusal to deal are (or should be) open-ended or opaque. Given the vagaries of litigation and the factual peculiarities of potential exceptional circumstances (witness *Magill* and *IMS Health*), it is not possible to formulate an exhaustive list of all possible abusive refusals to deal. The core principles remain clear nonetheless. In essence, an abusive refusal to deal is one that risks eliminating effective dynamic competition or materially harms consumers in some other way (e.g., by preventing new kinds of products for which there is a clear and unsatisfied demand from coming on the market or foreclosing competition for an existing product that consumers wish to go on using). The essential point is that the refusal to deal would cause serious enough harm to dynamic competition and prejudice consumer interests to an extent sufficient to justify a duty to deal.

A. SHORT OVERVIEW OF THE DECISIONAL PRACTICE AND CASE LAW

1. Refusal to Supply Cases

As early as *Commercial Solvents*,[25] the ECJ recognized that it is an abuse for a dominant firm to cut off supplies of an essential input to an actual or potential

24 *See* AG Opinion (Jacobs) of Oct. 28, 2004, Case C-53/03, Syfait v. Glaxosmithkline [hereinafter *Glaxosmithkline*], 2005 E.C.R. I-4609, at para. 68 and the Commission in *Microsoft EC*:

> [T]here is no persuasiveness to an approach that would advocate the existence of an exhaustive checklist of exceptional circumstances and would have the Commission disregard a limine other circumstances of exceptional character that may deserve to be taken into account when assessing a refusal to supply.

2004 MS Decision, *supra* note 1, at para. 555.

25 Joined Cases 6/73 and 7/73, Istituto Chemioterapico Italiano S.p.A. and Commercial Solvents Corporation v. Commission [hereinafter *Commercial Solvents*], 1974 E.C.R. 223. Substantially the sameconclusion was reached in *Telemarketing*, which concerned the termination of supplies to an existing customer, with the intention of reserving another monopoly in an ancillary market to the dominant firm (Case 311/84, Centre Belge D'études De Marché Télémarketing v. SA Compagnie Luxembourgeoise De Télédiffusion & others [hereinafter *Telemarketing*], 1985 E.C.R. 3261). *See also* Hugin/Liptons, 1978 O.J. (L 22) 23, in which the Commission found that the refusal to continue to supply a customer with spare parts on the ground that the customer had established a business in servicing and the supply of spare parts in competition with the dominant supplier was abusive.

rival active in the downstream market for the final product. The basis for the refusal to supply was that the dominant firm was planning to vertically integrate in competition with its customer on the downstream market for the supply of the final product. The dominant firm was the only source of the input raw material in the European Community, such that its refusal to supply a rival on the downstream market would evict that rival from the market and preclude competition. The Court concluded that:

> "[A]n undertaking which has a dominant position in the market in raw materials and which, with the object of reserving such raw material for manufacturing its own derivatives, refuses to supply a customer, which is itself a manufacturer of these derivatives, and therefore risks eliminating all competition on the part of this customer, is abusing its dominant position within the meaning of Article [82]."[26]

The principles applicable to the termination of an existing course of dealing also apply to the duty to grant first-time access. In *British Midland/Aer Lingus*,[27] Aer Lingus had in the past cooperated with British Midland within the framework of an international multilateral agreement on interlining services. However, once British Midland commenced a competing route from London-Dublin, Aer Lingus terminated its past cooperation and refused to accept interchangeability of British Midland's tickets on the London-Dublin route. The Commission made clear that the outcome in that case would have been the same if British Midland had been a first-time customer. It stated that "both a refusal to grant new interline facilities and the withdrawal of existing interline facilities may, depending on the circumstances, hinder the maintenance or development of competition."[28]

Indeed, this was precisely the conclusion reached by the Commission in earlier cases in the same industry.[29]

26 *Commercial Solvents, id.* at 250.

27 British Midland/Aer Lingus, 1992 O.J. (L 96) 34. *See also* FAG-Flughafen Frankfurt/Main AG, 1998 O.J. (L 72) 30 (access to airport ground handling services).

28 *Id.* at para. 26.

29 *See* London European/Sabena, 1988 O.J. (L 317) 47. *See also* Amadeus Sabre, Twenty-first Competition Policy Report 73-4 (1991) (duty to give access to EU-wide computer reservation system).

More recently, in *Bronner*,[30] the ECJ clarified the conditions for an abusive refusal to deal. Advocate General Jacobs set out the requirement for a balancing test:[31]

> "[The] justification in terms of competition policy for interfering with a dominant undertaking's freedom to contract often requires a careful balancing of conflicting considerations. In the long term it is generally pro-competitive and in the interest of consumers to allow a company to retain for its own use facilities which it has developed for the purpose of its business. For example, if access to a production, purchasing or distribution facility were allowed too easily there would be no incentive for a competitor to develop competing facilities. Thus while competition was increased in the short term it would be reduced in the long term. Moreover, the incentive for a dominant undertaking to invest in efficient facilities would be reduced if its competitors were, upon request, able to share the benefits. Thus the mere fact that by retaining a facility for its own use a dominant undertaking retains an advantage over a competitor cannot justify requiring access to it."[32]

First, the input in question must be "indispensable to carrying on that person's business, inasmuch as there is no actual or potential substitute in existence...." Second, "the refusal ... [must be] likely to eliminate all competition in the [relevant market] on the part of the person requesting the service." And finally, the refusal must be "incapable of being objectively justified."[33]

Principles very similar to those described above have been repeatedly confirmed as applicable also in the context of intellectual property and related rights. This is where the essential function of IPRs comes in.

30 *See Bronner*, *supra* note 15.

31 The position under U.S. antitrust law is identical:

> If a patent or other form of intellectual property does confer market power, that market power does not by itself offend the antitrust laws. As with any other tangible or intangible asset that enables its owner to obtain significant supra-competitive profits, market power (or even a monopoly) that is solely 'a consequence of a superior product, business acumen, or historic accident' does not violate the antitrust laws. Nor does such market power impose on the intellectual property owner an obligation to license the use of that property to others.

See U.S. Dep't Justice & Fed. Trade Comm'n, Antitrust Guidelines for the Licensing of Intellectual Property § 2.2 (Apr. 1995).

32 *See Bronner*, *supra* note 15, at para. 57.

33 *Id*. at para. 41.

2. *Volvo/Veng*

Beginning with *Volvo*, the ECJ held that, while the refusal to license intellectual property is not an abuse in itself, the exercise of intellectual property rights may involve abusive conduct. Volvo held a U.K.-registered design for the front wing panels of Volvo series 200. Without Volvo's authorization, Veng imported imitations of Volvo's wing panels into the United Kingdom from other Member States. Volvo sought to prevent Veng from importing and marketing them in the United Kingdom and refused to license Veng even against a reasonable royalty. In its defense, Veng argued that Volvo's refusal to grant it a license for the registered design was an abuse. A U.K. court requested a preliminary ruling from the ECJ on whether this refusal amounted to an infringement of Article 82. The ECJ dismissed Veng's claim in the following terms:

> "[T]he exercise of an exclusive right by the proprietor of a registered design...may be prohibited under Article 8[2] if it involves, on the part of an undertaking holding a dominant position, certain abusive conduct such as the arbitrary refusal to supply spare parts to independent repairers, the fixing of the prices for spare parts at an unfair level or a decision no longer to produce spare parts for a particular model ... still in circulation. In the present case no instance of any such conduct has been mentioned by the national court."[34]

The judgment represents a careful compromise on the part of the ECJ. On the one hand, it recognized that a mere refusal to license could not, in itself, be an abuse. On the other hand, it left the door open for defining future situations in which Article 82 EC could prevail over the exercise of an IPR, where IPRs are used as a tool for, or where a compulsory license is an appropriate remedy for, some additional abusive conduct not consisting of a mere refusal to license.

IT LEFT THE DOOR OPEN FOR DEFINING FUTURE SITUATIONS IN WHICH ARTICLE 82 EC COULD PREVAIL OVER THE EXERCISE OF AN IPR, WHERE IPRS ARE USED AS A TOOL FOR SOME ADDITIONAL ABUSIVE CONDUCT NOT CONSISTING OF A MERE REFUSAL TO LICENSE.

3. *Magill*

It did not take the Commission long to find a case where there was an additional abusive conduct over and above a refusal to license—a case where copyright was used not to foster but to stifle innovation, in a manner inconsistent with the essential function of copyright. In *Magill*, three TV companies, RTE, BBC, and ITV, relied on their copyright in listings of TV programs to prevent Magill

34 *Volvo/Veng*, *supra* note 10, at para. 9.

from publishing a comprehensive weekly TV guide in Ireland and the United Kingdom.[35] At the time, each broadcaster published guides that only contained the listings for their own channels, with the result that consumers who wished to plan a comprehensive week's viewing had to purchase multiple guides. The Commission found that the broadcasters' refusal to disclose the copyright-protected listings information was abusive because it prevented the emergence of a new and much-needed product—a comprehensive TV listings guide—and enabled the broadcasters to leverage their monopoly in broadcasting activities into the downstream market for TV listings magazines.

On appeal, the EC courts sided with the Commission and found that "the exercise of an exclusive right by the proprietor may, in exceptional circumstances, involve abusive conduct."[36] The exceptional circumstances in that case were the following:[37]

- The information in question was indispensable to compete on the relevant downstream market, with the result that the refusal to share it would result in the elimination of competition on this market;
- The refusal would prevent the emergence of a new product on the downstream market—namely a composite TV listings guide, for which there was clear and unsatisfied demand (i.e., demand for a single, composite TV listings magazine); and
- There was no objective justification for the refusal.

The CFI and Advocate General in *Magill* did, but the ECJ did not, refer to essential function, and it has been suggested that the ECJ abandoned the essential function test as a relevant factor.[38] It is submitted that the combination of the new-product criterion as part of the exceptional-circumstances test is nothing but a restatement and application of the essential function test.[39] After all, the essential function of IPR is to foster the development of new products. The parties in the *Microsoft EC* case referred extensively to the essential function criterion in their pleadings, so it will be interesting to see whether the CFI will refer to it.

35 For the *Magill* cases, *see supra* note 12.

36 *Magill* ECJ Judgment, *supra* note 12, at para. 50.

37 This principles mirror the conditions of Article 82(b) of the EC Treaty, which prohibits a dominant undertaking from limiting innovation to the prejudice of consumers.

38 *See, e.g.,* U. Bath, *Access to Information v. Intellectual Property Rights*, 24 Eur. Intellectual Property Rev. 138 (2002) and L Prete, *From Magill to IMS: dominant firms' duty to license competitors*, Eur. Bus. L. Rev. (2004).

39 *See also* 2004 MS Decision, *supra* note 1, at para. 711.

4. *IMS Health*

The *Magill* principles were confirmed in the ECJ's judgment in *IMS Health*.[40] The case concerned IMS's copyright-protected data analysis structure in Germany. This structure, referred to as the "1860 Brick Structure", divides the German territory into 1,860 geographic bricks that are carefully designed to group doctors, patients, and pharmacies so as to allow the reporting of pharmaceutical sales data in a way that is useful for calculating the compensation of pharmaceutical company sales representatives.

In 2000, two companies established in Germany by former IMS personnel, NDC Health GmbH (NDC) and Azyx Deutschland GmbH (Azyx), entered the German market. It soon became apparent to IMS that the brick structures used by these companies' data services offerings infringed IMS's copyright in the 1860 Brick Structure. To prevent NDC and Azyx from further using its copyright, IMS obtained injunctions against these companies from the German courts.

On December 19, 2000, NDC complained to the Commission that IMS should be forced to license the 1860 Brick Structure to its competitors so that they can continue to use it to offer data services that compete with IMS's. On July 3, 2001, the Commission adopted an interim decision, which found that customers gave input in the development of the 1860 Brick Structure, and that that structure had become a de facto industry standard (Interim Decision).[41] The Interim Decision concluded that these factors made the 1860 Brick Structure an essential facility that must made available, on reasonable terms, for incorporation in competing NDC and Azyx services.

In the meantime, the German court requested a preliminary ruling from the ECJ in the main proceedings on whether IMS's conduct was compatible with Article 82 EC. IMS subsequently appealed the Commission's Interim Decision and the President of the CFI suspended the operation of the Decision.[42] The upshot of the President's Order was that the Interim Decision could not be enforced until IMS's main appeal was determined.[43]

On April 29, 2004, the ECJ issued its opinion in *IMS Health*. It confirmed the *Magill* criteria in holding that:

40 ECJ Judgment of Apr. 29, 2004, Case C-418/01, IMS Health v. NDC Health [hereinafter *IMS Health*], 2004 E.C.R. I-5039.

41 NDC Health/IMS Health: Interim Measures, 2003 O.J. L268/69.

42 Case T-184/01 R, IMS Health Inc. v. Commission, 2001 E.C.R. II-3193.

43 The CFI President's Order was confirmed on appeal by the President of the ECJ in Case C-481/01P(R), NDC Health v. IMS Health, 2002 E.C.R. I-3401.

> "[T]he refusal by an undertaking which holds a dominant position and owns an intellectual property right in a brick structure indispensable to the presentation of regional sales data on pharmaceutical products in a Member State to grant a licence to use that structure to another undertaking which also wishes to provide such data in the same Member State, constitutes an abuse of a dominant position within the meaning of Article 82 EC where the following conditions are fulfilled:
>
> The undertaking which requested the license intends to offer, on the market for the supply of the data in question, new products or services not offered by the owner of the intellectual property right and for which there is a potential consumer demand;
>
> The refusal is not justified by objective considerations;
>
> The refusal is such as to reserve to the owner of the intellectual property right the market for the supply of data on sales of pharmaceutical products in the Member State concerned by eliminating all competition on that market."[44]

These exceptional circumstances identified in *Magill* and reaffirmed in *IMS Health* appear to be the existence of the additional abuse itself, where the IPR is used as a tool for abusive restriction of innovation. This would mean that the mere refusal to supply a new customer who is a rival is normally competition on the merits. It would also mean that where an additional abuse inconsistent with the essential function of IPR is proven, there is no requirement to prove the additional exceptional circumstances.

5. *Microsoft EC*

The most recent application of these principles is the 2004 MS Decision.[45] Still subject to appeal at the time of writing, the Decision concerns two Commission findings of abusive conduct:

(1) a refusal to supply interoperability information, thus leveraging the desktop operating systems software (OS) monopoly to workgroup server OS products, and

(2) the tying of Windows Media Player to the desktop OS.

Since the latter does not concern IPRs it is not further discussed below.

44 *IMS Health*, *supra* note 40, at 52

45 2004 MS Decision, *supra* note 1.

The section of the 2004 MS Decision dealing with refusal to supply interoperability information is largely—but not exclusively—based on the criteria set out in the *Magill* and *IMS* cases. It identifies additional abuse consisting of exclusionary conduct in breach of Article 82(b) EC, where Microsoft's refusal to make essential interoperability information available hinders rival product development without noticeable contribution to Microsoft's own innovation incentive.[46] The Decision recognizes that a mere refusal to license IPRs is not an abuse (*Volvo/Veng*, *Magill*), but points out that Microsoft is not a case of mere refusal to supply (as was the case in *IMS*). Rather, Microsoft's refusal to supply essential interoperability information was found abusive and justified an obligation to license because of "exceptional circumstances". The Commission cited the following circumstances:[47]

- The need for interoperability,[48] which the Commission found to be essential for rival workgroup server OS producers to remain in the market in the long term. Interoperability information was of "significant competitive importance"[49] and there are no effective alternatives other than Microsoft providing this information;[50]
- The risk of elimination of competition on a secondary market.[51] The Commission proves this by showing that Microsoft is already dominant in workgroup server OS and market shares are growing, and showing that Microsoft's conduct tends to create a barrier to enter for work group server OS vendors,[52] while at the same time reinforcing barriers to entry in the PC operating system market (a monopoly maintenance theory).[53] Following *IMS Health*, it is determinative that two different stages of production may be identified and that they are interconnected;[54]
- The negative effect on innovation;[55]

46 *Id.* at paras. 693-701.

47 *Id*. at para. 712.

48 *Id*. at paras. 524, 637ff.

49 *Id*. at para. 586.

50 *Id*. at paras. 666 et seq.

51 *Id*. at paras. 585-692.

52 *Id*. at para. 524.

53 *Id*. at para. 769.

54 *IMS Health*, *supra* note 40, at paras. 44-6.

55 2004 MS Decision, *supra* note 1, at para. 693ff.

- The prejudice of consumers,[56] which the *Magill* and *IMS* cases did not discuss, including reduced choice of products, and consumer lock-in,[57] reduced innovation and thus reduction of future consumer choice,[58] and indirect harm by impairing competition;[59] and

- Absence of justification.[60] A disclosure requirement for interoperability information was consistent with EC legislation on the protection of software programs,[61] which establishes a policy encouraging interoperability. A duty to disclose the specifications did not adversely affect Microsoft's incentives to innovate, because source code information—which might allow competitors to develop clone products—would not be disclosed, and Microsoft's drive to develop interoperability technology would not be diminished since such technology makes its platforms more attractive.[62] Indeed, Microsoft's overall innovation incentives would increase as competitive alternatives become available.

Three legal observations can be made: First, again following *Magill* and *IMS*, the 2004 MS Decision finds an additional abuse over and above the mere refusal to supply. This includes in particular restriction of innovation in violation of Article 82(b) EC,[63] as well as disruption of past supplies.[64] Second, when discussing absence of justification, the Commission points out that Microsoft's uses its IPR claims in a manner that goes beyond what is necessary to fulfill the essential function of the IPR, by reducing innovation.[65] Third, the exceptional cir-

56 *Id*. at paras. 693-708.

57 *Id*. at para. 694.

58 *Id*. at para. 694ff.

59 *Id*. at para. 704 (*referring to* Case 85/76, Hoffmann-La Roche v. Commission [hereinafter *Hoffman-La Roche*], 1979 E.C.R. 461, at para. 125).

60 *Id*. at para. 709-78.

61 *Id*. at para. 743 et seq.

62 *Id*. at para. 714. Microsoft subsequently offered to make source code available, but this offer was not taken up since it carried with it the possibility of copyright suit for inadvertent copying.

63 *Id*. at para. 782.

64 *Id*. at paras. 587-8.

65 Quoting the 2004 MS Decision:

> The central function of intellectual property rights is to protect the moral rights in a right-holder's work and ensure a reward for the creative effort. But it is also an essential objective of intellectual property law that creativity should be stimulated for the general public good. A refusal by an undertaking to grant a licence may, under

footnote 65 cont'd on next page

cumstances are defined as the abuse itself,[66] suggesting that this criterion has no independent meaning. This is not to say that the Decision does not mention circumstances that could qualify as exceptional. The Commission mentions elsewhere a number of factors that it could have listed as exceptional, including:

- An exceptional level and duration of dominance,[67] reinforced by network effects.[68] Firms with substantial—let alone virtual monopoly—market power must be held to the strictest standard of conduct under Article 82 to ensure that their behavior in the marketplace does not have exclusionary effect.[69]

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footnote 65 cont'd
exceptional circumstances, be contrary to the general public good by constituting an abuse of a dominant position with harmful effects on innovation and on consumers.

Id. at para. 711.

66 *Id*. at para. 712.

67 *Id*. at para. 471.

68 *Id*. paras. 459, 470.

69 *See* European Commission, DG Competition Discussion Paper on the Application of Article 82 of the Treaty to Exclusionary Abuses (Dec. 2005) [hereinafter Article 82 Discussion Paper], at 59 ("In general, the higher the capability of conduct to foreclose and the wider its application and the stronger the dominant position, the higher the likelihood that an anticompetitive foreclosure effect results.") and ECJ Judgment of Dec. 14, 2005, Case T-210/01, General Electric v. Commission, at para. 550 ("the greater the dominance of an undertaking, the greater is its special responsibility to refrain from any conduct liable to weaken further, a fortiori to eliminate, competition which still exists on the market.").

See also Advocate Fennelly in *CEWAL*:

> To my mind, Article 8[2] cannot be interpreted as permitting monopolists or quasi-monopolists to exploit the very significant market power which their superdominance confers so as to preclude the emergence either of a new or additional competitor. Where an undertaking, or group of undertakings whose conduct must be assessed collectively, enjoys a *position of such overwhelming dominance verging on monopoly*, [...] it would not be consonant with the *particularly onerous special obligation affecting such a dominant undertaking not to impair further the structure of the feeble existing competition* for them to react, even to aggressive price competition from a new entrant, with a policy [...] designed to eliminate that competitor [...]." (emphasis added.)

AG Opinion (Fennelly) of Oct. 29, 1998, Joined Cases C-395/96 P and C-396/96 P, Compagnie Maritime Belge Transport v. Commission (*CEWAL*), 2000 E.C.R. I-1365, at para. 137.

And in *Napp Pharmaceuticals*:

> We for our part accept and follow the opinion of Advocate General Fennelly in *Compagnie Maritime Belge* [...] that the special responsibility of a dominant undertaking is particularly onerous where it is a case of a quasi-monopolist enjoying "dominance approaching monopoly", "superdominance" or "overwhelming dominance approaching monopoly".

Napp Pharmaceutical Holdings Limited and Subsidiaries v. Director General of Fair Trading (*Napp Pharmaceuticals*), 2002 Comp.A.R 13, at para. 219. Although this judgment applied U.K. law, the relevant section of the U.K. Fair Competition Act is virtually identical to the wording of Article 82, and the Act requires that it is to be interpreted and applied in a manner consistent with EC competition law.

- A general pattern of exclusionary conduct, including another abuse (tying),[70] discrimination,[71] and the leveraging of dominance from a primary market (desktop OS) into a second product (workgroup server OS),[72] with the specific intent to foreclose specified rivals;[73]
- Deviation from a general industry practice of disclosure,[74] in which Microsoft originally participated, but from which it began to diverge when the company became powerful enough to do so, and the disruption of supply became profitable;[75] and
- Last, but not least, Microsoft's conduct reinforced its already dominant position in the PC OS market.[76]

B. THE CONDITIONS FOR AN ABUSIVE REFUSAL TO DEAL

The cases discussed above indicate that where the abuse consists of a (constructive) refusal to supply or license a rival, the mere refusal to license absent some other abuse cannot give rise to liability, with one exception. If (a) there is a refusal to license; (b) the IPR is essential and required for rivals to be or remain commercially viable in a downstream market; (c) the refusal to share the information or input creates a serious risk of elimination of all effective competition in the downstream market (even though the IPR does not apply to the downstream product or is only a component of it); and (d) the refusal to deal lacks objective, proportionate justification, the IPR owner must not unjustifiably discriminate between its own integrated downstream business and third parties competing with it. Even then, there are arguments that a compulsory license may be imposed only if the refusal is a tool for another abuse, or inconsistent with the essential function of IP, such as the "limitation of technical development to the prejudice of consumers" in violation of 82(b).

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70 2004 MS Decision, *supra* note 1, at § 5.3.1.1.3.1, para. 531 et seq.

71 *Id.* at para. 574.

72 *Id.* at paras. 697-700.

73 *Id.* at paras. 774-8 (*especially* the quote from Mr. Gates at 778).

74 *Id.* at paras. 730 et seq.

75 *Id.* at paras. 587-8:

> The value that [rivals'] products brought to the network also augmented the client PC operating system's value in the customers' eyes and therefore Microsoft—as long as it did not have a credible work group server operating system alternative—had incentives to have its client PC operating system interoperate with non-Microsoft work group server operating systems [...] Once Microsoft's work group server operating system gained acceptance [...] Microsoft's incentives changed and holding back access to information relating to interoperability with the Windows environment started to make sense.

76 *Id.* at para. 769.

There is some discussion as to whether the exclusion must be in a downstream or secondary market distinct from an upstream market for the IPR, for an abuse to be found in these circumstances. This so-called "two markets" requirement seems a necessity for essential facilities cases such *IMS Health*, but even in that case the ECJ seems to recognize that:

> "It is sufficient that a potential market or even a hypothetical market can be identified. Such is the case where the products or services are indispensable in order to carry on a particular business and where there is an actual demand for them on the part of the undertakings which seek to carry on the business for which they are indispensable."[77]

This condition appears to be met where it makes economic sense for the IPR owner to license the IPR or provide the interoperability information but for the advantage the owner gains in excluding effective competition in, and monopolizing, the downstream market.

Whether there still is a need to show exceptional circumstances over and above the abuse in question remains to be seen. The "exceptional" circumstances in *Magill*, *IMS Health*, and *Microsoft EC* were effectively defined as the abuse itself. Arguments could be made that given the nature of IPR as a means to encourage competition through innovation, any remedy involving IPR in dynamic markets—those characterized by innovation—should be imposed only in the exceptional situation where the imposition of a compulsory license results in greater overall innovation incentives (for the entire industry including the IPR owner) than are maintained if the refusal is recognized.

A reading of the decisional practice and case law, as confirmed by the Commission's Article 82 Discussion Paper, suggests the following application of the exceptional circumstances in practice.

1. A Refusal to Deal

The concept of a refusal to deal has an expansive meaning under Article 82 EC, covering not only actual refusals, but also constructive refusals to deal.[78] In *Deutsche Post*, the Commission stated that "the concept of refusal to supply covers not only outright refusal but also situations where dominant firms make sup-

77 *IMS Health*, *supra* note 40, at para. 44.

78 Article 82 Discussion Paper, *supra* note 69, at paras. 62, 209, 219 and 225.

ply subject to objectively unreasonable terms."[79] The latter includes requests that are not met with a positive response without undue delay.[80] For example, a response by a dominant firm that was "entirely negative and consisted of raising difficulties"[81] is tantamount to a refusal to deal. So too is a dilatory attitude towards a request by one customer in circumstances where the dominant firm adopts a cooperative attitude towards another[82] (i.e., discrimination, generally applied delaying tactics),[83] or where the dominant company has established a clear pattern of refusing access to indispensable information and it therefore makes no sense for independent developers to request such information.

2. The Input or Information in Question Is Indispensable for Competition

Indispensability implies that the input or information in question is essential for the exercise of a viable activity on the market for which access is sought.[84] The test is whether the creation of substitute inputs or information is impossible or extremely difficult;[85] in other words, whether there are "technical, legal or economic obstacles capable of making it impossible or at least unreasonably difficult"[86] to create alternatives, or to create them within a reasonable timeframe.[87] Thus, it must be shown that the cost of duplicating the allegedly essential facil-

79 Deutsche Post AG, 2001 O.J. (L 331) 40, at para. 141.

80 GVG/FS, 2004 O.J. (L 11) 17, at para. 123.

81 *See* Sea Containers v. Stena Sealink (Interim measures), 1994 O.J. (L 15) 8, at para. 71.

82 *See* Commission Decision of Jun. 4, 2004, Case COMP/38.096, Clearstream (Clearing and Settlement) (not yet published) [hereinafter *Clearstream*], *available at* http://ec.europa.eu/comm/competition/antitrust/cases/decisions/38096/en.pdf, at paras. 293 et seq.

83 Article 82 Discussion Paper, *supra* note 69, at paras. 209 and 225.

84 *See* Case T-504/93, Tiercé Ladbroke SA v. Commission, 1997 E.C.R. II-923, at para. 130 (live pictures of French races not indispensable to compete in the relevant Belgian market).

85 *See* AG Opinion of May 28, 1998, *Bronner*, *supra* note 15, at 7813-4.

86 *See* IMS Health, *supra* note 40, at para. 28:

> It is clear from paragraphs 43 and 44 of Bronner that, in order to determine whether a product or service is indispensable for enabling an undertaking to carry on business in a particular market, it must be determined whether there are products or services which constitute alternative solutions, even if they are less advantageous, and *whether there are technical, legal or economic obstacles capable of making it impossible or at least unreasonably difficult* for any undertaking seeking to operate in the market to create, possibly in cooperation with other operators, the alternative products or services..." (emphasis added)

87 *See* Case T-374/94, European Night Services v. Commission [hereinafter *European Night Services*], 1998 E.C.R. II-3141, at para. 209, fn. 34.

ity constitutes a barrier to entry such that there are no viable alternatives to the dominant firm's input,[88] or the cost of such alternatives is "prohibitively expensive and would not make any commercial sense."[89]

In the case of intellectual property rights similar considerations apply. Because of the legal restrictions, the test is whether competitors can turn to any workable alternative technology or workaround the right in question in such a way that they can remain effective competitors without the supply.

This arose in the *Microsoft EC* case, where Microsoft argued that interoperability information (albeit not complete) was available in part through it and through other sources, including reverse engineering, and further information is not indispensable to be in the market. The Commission and its supporters argued that this is not a defense, since interoperability information is technically necessary and without it, rival servers cannot effectively communicate with Windows, Outlook and Office on a level playing field with Microsoft's own servers.[90] Second, there are no workarounds that offer any realistically workable alternative without prohibitive time lag. The Commission found in *Microsoft EC* that reverse engineering is not a viable alternative because of the time and expense involved, as well as the fact that Microsoft can simply make a strategic change to its code base to eliminate or substantially weaken any interoperability achieved.[91] Moreover, if the partial interoperability information Microsoft has made available in the past were sufficient for a workaround, then it would not have been faced with the complaints that led to the 2004 MS Decision, since rivals could have developed fully interoperable products. The Commission's Article 82 Discussion Paper states the indispensability requirement "would likely be met where the technology has become the standard or where interoperability with the rightholder's IPR protected product is necessary for a company to enter or remain on the product market."[92] This is the case for any interoperability information that may be protected by IPRs in regard to products that have become de facto standards or where interoperability is necessary to compete in the market.

88 *See European Night Services*, *id.* at para. 209 and *Clearstream*, *supra* note 82, at para. 227 ("Clearstream a *de facto* monopolist and unavoidable trading party for primary clearing and settlement services in Germany").

89 *See* GVG/FS, 2004 O.J. (L 11) 17, at paras. 109, 120, and 148.

90 It was argued that the information meets the definition of an essential facility given by Advocate General Jacobs in *Bronner* in that independent development "is impossible or extremely difficult..." (*see* AG Opinion in *Bronner*, *supra* note 85 and *IMS* Health, *supra* note 40, at para. 28).

91 2004 MS Decision, *supra* note 1, at paras. 685-7.

92 Article 82 Discussion Paper, *supra* note 69, at para. 23.

Indispensability is not required for an abuse not involving a (constructive) refusal to license a rival, where a compulsory license may be an appropriate remedy, but where dominance in addition to some other abusive behavior may be enough for application of Article 82.

3. The Refusal Risks Substantially Eliminating Effective Competition on the Relevant Market

Elimination of effective competition generally. The refusal to share the indispensable input must entail the "elimination or substantial reduction of competition to the detriment of consumers in both the short and the long term."[93] This is a higher standard than the distortion of competition that must be proven if the abuse involves tying, discrimination, imposing unfair terms and conditions, or standards manipulation. This condition is the corollary of the condition that the dominant firm's input is indispensable for competition: if the input is not indispensable, the refusal to share would not have substantial effects on competition. Conversely, if an input is essential for competition, it would, ultimately, allow the firm or firms that own or control it to exclude all competition on the relevant downstream market in which the input is used. The Commission has explained this underlying policy rationale for imposing a duty to deal in the following terms:

> "The duty to provide access to a facility arises if the effect of the refusal to supply on competition is objectively serious enough: if without access there is, in practice, an insuperable barrier to entry for competitors of the dominant company, or if without access competitors would be subject to a serious, permanent and inescapable competitive handicap...."[94]

No need to wait for actual exit. There should, however, be no requirement to show that the rival who wishes to have access to the information is already excluded from the market before the refusal to supply can be found to risk substantially eliminating competition.[95] Any such requirement would deprive the remedy of its useful effect. Rather, it should be enough to show that if the information continues to be unavailable, then (as the product and demand evolve) there is a serious risk of elimination of competition. Thus the Commission con-

93 *See* AG Opinion in *Bronner*, supra note 85, at para. 61.

94 *See* Organisation for Economic Co-operation & Development, The Essential Facility Concept 94 (1996), *available at* http://www.oecd.org/dataoecd/34/20/1920021.pdf.

95 Article 82 Discussion Paper, *supra* note 69, at paras. 27 and 58.

cluded in *Microsoft EC* that the relevant legal test is not whether each and every competitor has irreversibly exited, but whether there is some present basis for identifying a "serious risk of foreclosing competition and stifling innovation."[96]

This reflects the EC courts' view that Article 82 is not only concerned with actual anticompetitive effects, but also potential or likely anticompetitive effects.[97] This makes sense, since, otherwise, competition authorities and courts would have to stand idly by and wait for actual exclusion and anticompetitive effects to materialize before they could act, even where the long-term harm caused by exclusion would be serious, or even irreversible, due to very high barriers to re-entry. Moreover, in a monopoly maintenance case—which the Commission found that *Microsoft EC* case is, in part, because the denial of interoperability raises interoperability barriers to entry and thus reinforces Microsoft's PC operating systems monopoly—the anticompetitive effect is not the mere exclusion of competitors, but consumer harm from the continuation of a substantial degree of market power and reduction of product diversity.

THIS REFLECTS THE EC COURTS' VIEW THAT ARTICLE 82 IS NOT ONLY CONCERNED WITH ACTUAL ANTICOMPETITIVE EFFECTS, BUT ALSO POTENTIAL OR LIKELY ANTICOMPETITIVE EFFECTS.

Marginalized competition is the same as no effective competition. A test based on the elimination of all competition could also be open to abuse. A dominant firm could always allow one or two small rivals to remain on the market as marginalized competitors (sometimes referred to as "bonsai"). But the mere presence of a competitor does not mean that no elimination of competition has occurred. Especially in markets where significant investments are required to compete through innovation, effective competition does not mean the mere presence of one or more niche rivals. It implies a meaningful process of competition whereby firms have an effective opportunity to compete on the merits on the basis of price, quality, and innovation. Indeed, it is well established in the economics literature that there is a significant risk of falsely concluding that no harm to competition has occurred merely because rivals have not fully exited.[98] Competitors that are marginalized in dynamic markets and that are unable—or deprived of

96 2004 MS Decision, *supra* note 1, at recital 842. *See also* Article 82 Discussion Paper, *supra* note 69, at para. 22 ("An abuse may only arise when the termination is likely to have a negative effect on competition in the downstream market.").

97 *See* Case T-219/99, British Airways plc. v. Commission, 2003 E.C.R. II-5917 and Case T-203/01, Manufacture française des pneumatiques Michelin v. Commission, 2003 E.C.R. II-4071.

98 *See* T. Krattenmaker & S. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs To Achieve Power over Price*, 96 YALE L.J. 209 (1986) and S. C. Salop & D. T. Scheffman, *Cost-Raising Strategies,* 36 J. INDUS. ECON. 19 (1987). *See also* Article 82 Discussion Paper, *supra* note 69, at para. 231 ("An abuse only may arise when the exclusion of competitors is likely to have a negative effect on competition in the downstream market. This should however not be understood to mean the complete elimination of all competition.").

further incentives—to engage in viable competitive innovation are effectively the same as no competition in those areas.[99]

4. Limiting Innovation to the Prejudice of Consumers

It bears emphasis that prejudice to consumers can occur in a variety of factual settings. The EC courts have confirmed that no exhaustive list of criteria applies.[100] Thus, each refusal to deal or instance of non-disclosure must be reviewed on its merits in light of the details of the market under consideration, the scope for harm to consumers in that market, and possible proportionate justifications.

In particular, there is no requirement that the refusal must always prevent the emergence of a product that has not existed before in any form. The situation where consumers are deprived of a specific new product for which they have present unsatisfied demand, as occurred in *Magill*, is but one example of a limitation of innovation to the prejudice of consumers. No such requirement is mentioned in the judgments in *Bronner* or in earlier cases such as *Commercial Solvents* and *Télémarketing*. Moreover, the examples cited in *Volvo* do not, by definition, involve new products, and yet the ECJ was willing to recognize those as examples of abuse where a compulsory license might be an appropriate remedy. Indeed, in *Ladbroke*, which concerned copyright, the CFI indicated that the new-product test could justify imposition of a duty to deal under Article 82, but that other criteria could also justify such a duty.[101] This was confirmed again in *IMS Health*, where the new-product criterion was mentioned as merely one of several sufficient conditions, thereby suggesting, implicitly but clearly, that this criterion (together with the other elements) is sufficient but not necessary.[102]

The new-product test applied in *IMS* must be understood as a proxy to identify conduct that stifles innovation and reduces consumer welfare, or that "limit[s] pro-

99 This interpretation of the law is also consistent with the decisional practice of the EC courts. In both *Commercial Solvents* and *Télémarketing,* for example, the EC courts found a breach of Article 82 where there was risk of "eliminating all competition *from that customer*" [emphasis added] not of eliminating all competition. *See Télémarketing*, *supra* note 25, at paras. 25 and 26 and *Commercial Solvents*, *supra* note 25, at para. 25.

100 *See* AG Opinion in *Glaxosmithkline*, *supra* note 24, at para. 68. *See also* 2004 MS Decision, *supra* note 1, at recital 555:

> [T]here is no persuasiveness to an approach that would advocate the existence of an exhaustive checklist of exceptional circumstances and would have the Commission disregard a limine other circumstances of exceptional character that may deserve to be taken into account when assessing a refusal to supply.

101 *See* Case T-504/93, Tiercé Ladbroke SA v. Commission, 1997 E.C.R. II-923, at para. 131.

102 *See* L. Gyselen, *Le titulaire d'un droit de propriété intellectuelle doit-il fournir le produit de son droit à un concurrent*, 2 Concurrences 24, 27 (2005). *See also* ECJ President Vesterdorf's obiter dictum in *Microsoft EC* (not yet reported), at para. 206.

duction...or technical development to the prejudice of consumers" within the meaning of Article 82(b).[103] This thinking appears to underpin the following (sometimes controversial) statement in the Commission's Article 82 Discussion Paper:

> "A refusal to licence an IPR protected technology which is indispensable as a basis for follow-on innovation by competitors may be abusive even if the licence is not sought to directly incorporate the technology in clearly identifiable new goods and services. The refusal of licensing an IPR protected technology should not impair consumers' ability to benefit from innovation brought about by the dominant undertaking's competitors."[104]

There are arguments that this comment is more liberal than the EC courts' interpretation of the new-product requirement. In *Magill*, the Court required proof of unsatisfied consumer demand and not merely the prospect of future innovation, and assessed the relevant market in which the follow-on innovation would compete. On the other hand, the holding in *Magill* is not necessarily exhaustive. Consumers can of course be harmed in many ways other than the narrow case of suppression of existing new products. One example of consumer harm is where rival software vendors lack access on equal terms to essential interoperability information and cannot offer products (even better or more functional or more innovative products) that have full interoperability with a virtual monopoly standard. Interoperability is a policy goal designed to provide users the freedom to combine best-of-breed components of a system or network in any way they wish. The non-disclosure of essential information in such a case not only deprives users of that freedom, but also is an artificial handicap to rivals' products that otherwise a) could evolve in innovative ways, creating product diversity or b) could directly or indirectly foster innovation that challenges the dominant firm's monopoly. Thus, in *Microsoft EC*, the Commission found that the key element of prejudice to consumers was the lack of interoperability between Microsoft's monopoly Windows operating system software and server software that limited competitors' innovation, including their scope for developing new products:

103 *See* F. Lévêque, *Innovation, Leveraging and Essential Facilities: Interoperability Licensing in the EU Microsoft Case*, 28 World Competition 71 (2005); M. Leistner, *Intellectual Property and Competition Law: The European Development from Magill to IMS Health Compared to Recent German and U.S. Case Law*, 2 ZWeR 138, ¶¶ 150-2 (2005); M. Stopper, *Der Microsoft-Beschluss des EuG,* 1 ZWeR 87 ¶ 102 (2005).

104 Article 82 Discussion Paper, *supra* note 69, at para. 240.

> "Due to the lack of interoperability that competing work group server operating system products can achieve with the Windows domain architecture, an increasing number of consumers are locked into a homogeneous Windows solution at the level of work group server operating systems. This impairs the ability of such customers to benefit from innovative work group server operating system features brought to the market by Microsoft's competitors. In addition, this limits the prospect for such competitors to successfully market their innovation and thereby discourages them from developing new products."[105]

Microsoft argued that the new-product requirement must satisfy potential demand by meeting the needs of consumers in ways that existing products do not. That is, a new product must exist that will expand the market significantly by bringing in consumers who were not satisfied before. This is clearly relevant but seems too limited, since, as noted, there may be other situations of consumer harm. Microsoft's argument would mean that if the relevant products are so important that all relevant consumers effectively require them and buy them whether or not they are good enough, consumer harm could not be found even if improvements are smothered. Restriction of innovation and lack of interoperability can prejudice consumers even if there are no new products yet, but incentives and opportunity to innovate are stifled to such an extent that rivals who in the past have shown a propensity to innovate are being cut out of the market.

In any event, the Commission and the interveners argued that fully interoperable third-party products fit the new-product criterion mentioned as being sufficient in *IMS*. There is unsatisfied consumer demand for third-party products with full interoperability with Windows and Office. There is substantial consumer prejudice in particular where: a) the rivals' activities could directly or indirectly foster innovation that challenges the dominant firm's monopoly; or b) rivals' products themselves can be expected to evolve in innovative ways, creating product diversity. In that case, there will be little scope for innovation—except, possibly, innovation coming from Microsoft, and even Microsoft's incentives are reduced in the absence of pressure from rivals. Thus, the scope for competitive harm in cases of denial of interoperability is far greater than in any previous case that involved only one new type of product (e.g., *Magill*). The CFI will now have to rule on the

THUS, THE SCOPE FOR COMPETITIVE HARM IN CASES OF DENIAL OF INTEROPERABILITY IS FAR GREATER THAN IN ANY PREVIOUS CASE THAT INVOLVED ONLY ONE NEW TYPE OF PRODUCT.

105 2004 MS Decision, *supra* note 1, at 694.

importance of interoperability to enable the emergence of multiple complementary new products and other forms of innovation by all competitors.

5. Objective Justification and Proportionality

Objective and proportionate efficiencies or other justification can immunize conduct from liability.[106] The elements to be proven for an objective justification analysis under Article 82 are four-fold. As applied to refusal to license cases, it is up to the dominant undertaking to show that:

- The refusal seeks to attain a legitimate goal. The range of acceptable justifications for a refusal to deal will vary from case to case depending on the facts. Examples include capacity limitations, quality degradation, and security.[107] In the case of IPRs, the desire to recover past R&D expenses and to underpin investments in future innovation may be provided as a legitimate goal;

- The conduct is effective, in that it is reasonably capable of achieving that legitimate goal; the objective must not be a theoretical or a sham or subterfuge for exclusionary intent;

- The conduct is necessary to achieve the pro-competitive goal. If this is convincingly alleged, the plaintiff must show there are less restrictive and effective alternatives;

- The use of the IPR is proportionate in light of the pro-competitive goal and the anticompetitive effect (called the balance-of-interest test); this test should focus on the essential function of IPRs, that is, to foster innovation. If the IPR is used in a way that reduces overall innovation, the balance of interest should arguably fall in favor of compulsory licensing.

This rule of reason type inquiry is similar to the analysis applied in the United States to Section 2 Sherman Act offenses (including the *Microsoft III* proceedings in the United States).[108]

106 *See also Magill*, *supra* note 12; *Bronner*, *supra* note 15 ("incapable of being objectively justified"); *Telemarketing*, *supra* note 25 ("without objective necessity"); United Brands v. Commission, 1978 E.C.R. 207, at paras. 189-90, 184 ("an undertaking must be conceded the right to take such reasonable steps as it deems appropriate to protect its said interests [although] such behaviour cannot be countenanced if its actual purpose is to strengthen this dominant position and abuse it..." (emphasis added)); *Hoffmann-La Roche*, *supra* note 59, at para. 90; and Case 322/81, Michelin v. Commission, 1983 E.C.R. 3461, at paras. 73 and 85.

107 *See, e.g.*, Commission Notice on the application of the competition rules to access agreements in the telecommunications sector, 1998 O.J. (C 265) 2, at para. 91.

108 In its review of the *Microsoft III* decision (*supra* note 18), the U.S. Court of Appeals for the DC Circuit states a rule of reason test very close to the EC proportionality test.

In *Microsoft EC*, Microsoft did not invoke a specific efficiency objective that it claimed to pursue through the refusal to disclose full interoperability information. Instead, Microsoft invoked general efficiencies and innovation incentives associated with the freedom to contract and protection of intellectual property:

> "The major objective justification put forward by Microsoft relates to Microsoft's intellectual property over Windows. However, a detailed examination of the scope of the disclosure at stake leads to the conclusion that, on balance, the possible negative impact of an order to supply on Microsoft's incentives to innovate is outweighed by its positive impact on the level of innovation of the whole industry (including Microsoft). As such, the need to protect Microsoft's incentives to innovate cannot constitute an objective justification that would offset the exceptional circumstances identified. Microsoft's other objective justification, which is that it has no incentive to engage in anti-competitive conduct with respect to interoperability, is not supported, and in fact is largely contradicted, by the evidence in this case."[109]

In assessing Microsoft's incentives to innovate, the Commission distinguished between interoperability technology and general OS technology, and concluded that the disclosure of interoperability information (externals) does not affect Microsoft's incentives to innovate OS internals.[110] Since no source code or internal code is disclosed, the Commission found that there is no risk of cloning.[111] Because of time lag and disadvantages, "Microsoft's competitors will have to provide additional value to the customer, beyond the mere interoperability of their products ... if such products are to be commercially viable."[112] In fact, because of the difficulty of implementing specifications designed for another system: rivals will have to be more efficient to benefit from the disclosure obligation.[113] Nor is Microsoft's incentive to innovate foreclosed since, according to the Commission, "there is ample scope for differentiation and innovation [by Microsoft] beyond the design of interface specifications."[114] The

109 2004 MS Decision, *supra* note 1, at para. 783.

110 *Id.* at para. 698.

111 *Id.* at paras. 713-22.

112 *Id.* at para. 722.

113 *Id.* at paras. 721-33.

114 *Id.* at para. 698.

Commission also noted that the U.S. remedies (the Microsoft Communications Protocol Program) did not reduce incentives to innovate either.[115] Conversely, the prospect of exclusion would reduce third parties' incentives to innovate, as well as Microsoft's incentives to innovate operating systems.[116] Ultimately, application of the balance-of-interest test led the Commission to the following conclusion:

> "[O]n balance, the possible negative impact of an order to supply on Microsoft's incentive to innovate is outweighed by its positive impact on the level of innovation of the whole industry (including Microsoft). As such, the need to protect Microsoft's incentives to innovate cannot constitute an objective justification that would offset the exceptional circumstances identified."[117]

As a threshold matter, the Commission suggests that it is for Microsoft to disclose what valid intellectual property rights it claims in any interoperability information that it would be required to provide to third parties. If the information in question is only or mainly trade secrets, many argue that the sanctity of intellectual property rights cease to be as clear or relevant.[118] Should some intellectual property be implicated, the interveners submitted that the limited disclosure of essential interoperability information strikes an appropriate and proportionate balance between the interests of a system of undistorted competition as laid down in Article 3(g) EC and respect for property rights.

First, after *Magill*, there is no general principle under Article 82 EC that a dominant firm can put forward a defense in a duty to deal case merely because intellectual property rights are at issue. Intellectual property laws do not create economic monopolies that can be defended in all circumstances and at all costs. Intellectual property laws coexist with antitrust law and accommodate antitrust law discipline. Intellectual property laws are blunt instruments that cannot bal-

115 *Id.* at para. 728.

116 *Id.* at para. 725.

117 *Id.* at para. 783

118 Trade secrets are not exclusive rights granted by the law and therefore do not deserve the same level of protection as patents, copyright, or trademarks, all of which are recognized and established property rights created by the legislator. In any event, where the violation of competition law consists precisely in keeping secret essential interoperability information, potential trade secrecy of such information must give way to proportionate antitrust remedies imposed in the public interest.

ance innovation incentives in all cases or regulate exhaustively and purely by themselves all possible economic and legal conflicts.

Second, it is said that the very purpose of IP rights is to grant a reward to the owner by restricting competition, in return for the benefits that valuable innovations bring to society.[119] But the same general justification can be advanced for physical property: the nature, scope, and duration of protection are the result of a legislative consensus that property rights confer net benefits to society in the form of desirable investment activity. Furthermore, it is well established that there are limits to the right to (physical) property that can be imposed in the common interest (e.g., on land use planning or environmental grounds).

INTELLECTUAL PROPERTY LAWS ARE BLUNT INSTRUMENTS THAT CANNOT BALANCE INNOVATION INCENTIVES IN ALL CASES OR REGULATE EXHAUSTIVELY AND PURELY BY THEMSELVES ALL POSSIBLE ECONOMIC AND LEGAL CONFLICTS.

Third, the interference with any intellectual property should be limited and proportionate and should not materially affect its wider innovation incentives. Microsoft's rivals argued they already have their own competing products with different features and functionality and have no desire to clone Microsoft's products; indeed, their competitive strategy is based on innovation and product differentiation. Any disclosures would be strictly limited to information that is essential to allow their products to have the same degree of interoperability with the virtual-monopoly Windows products as Microsoft affords to its own business. In particular, source code would not be required. Microsoft's rivals do provide, and will have to continue to provide, additional value to the customer beyond the mere interoperability of their products if such products are to be commercially viable. Interoperability is essential but it certainly does not in itself guarantee rivals' commercial success.

IV. Compulsory License on FRAND Terms

As explained, Article 82 EC applies to IPRs only if an IPR is used as a tool for an abuse, and in such a case, a compulsory license may be an appropriate remedy. As a rule, any remedy imposed by the Commission for abusive conduct should be proportionate. According to the ECJ in *Magill*: "[T]he burdens imposed on undertakings in order to bring an infringement of competition law to an end must not exceed what is appropriate and necessary to attain the objective sought, namely re-establishment of compliance with the rules infringed."[120]

119 *See* L. Kaplow, *The Patent-Antitrust Intersection: A Reappraisal*, 97 HARVARD L. REV. 1813, 1817 (1984).

120 *Magill* ECJ Judgment, *supra* note 12, at para. 30.

In the case of IPRs, this requires an evaluation of the impact of the remedy on overall innovation, the essential function of IPRs. This means that if a less-burdensome remedy can be found that effectively addresses the competition concerns of a refusal to license, the Commission should not resort to an order for compulsory licensing. If the holder of an IPR has several effective ways to eliminate an abuse, a choice should be allowed.

Once a choice has been made for compulsory licensing, the main difficulty facing a regulatory agency is implementing the remedy with appropriate speed and determining the terms at which it should be set.[121]

The Commission is by now acutely aware that timely implementation is especially important in dynamic markets, such as IT. It is striking that three years after the 2004 MS Decision was adopted, the remedy is still not effective. In the mean time, the complainants allege, the exclusionary effects on competition continue and new products are coming to market, such as Vista and Longhorn, giving rise to disputes as to whether and to what extent interoperability information must be disclosed for these products. This delay is perhaps understandable for a precedent case such as *Microsoft EC*, but it bodes ill for the useful effect of the compulsory licenses in complex cases. If the remedy is not implemented timely in a forward-looking manner, there is a risk that rivals' products are condemned to interoperability with old products that have been superseded in the mean time.

Another lesson learned from the *Microsoft EC* remedy is that the Commission needs to exercise vigilance when considering the terms and conditions for the compulsory license. The IPR owner may have incentives to deprive the remedy of useful effect. In *Microsoft EC*, the Commission ordered Microsoft to release its interoperability information on reasonable and non-discriminatory terms (RAND).[122] Microsoft responded by demanding significant royalties for the Workgroup Server Protocol Program that, according to the complainants, exceed the royalties charged for entry-level server operating systems.[123] If that is confirmed, price-squeeze concerns arise. In addition, there may be a temptation to pack lengthy license agreements with complicated and restrictive terms and conditions, contrasting with the one-page licenses that are employed in other cases.[124]

121 *See, e.g.,* IBM 1984 Undertaking, 1991 O.J. (L 122) 42.

122 2004 MS Decision, *supra* note 1, at paras. 1005-8.

123 *See* Microsoft Work Group Server Protocol Program, *at* http://www.microsoft.com/about/legal/intellectualproperty/protocols/wspp/wspp.mspx (accessed Feb. 13, 2007). he Commission obtained a commitment from IBM to reveal interface information to competitors on new IBM products.

124 *See* Microsoft's Royalty Free Protocol License Agreement for specific client-server protocols implemented in Windows, *at* http://msdn.microsoft.com/library/default.asp?url=/library/en-us/randz/protocol/royalty_free_protocol_license_agreement.asp (accessed Feb. 13, 2007).

Some guidance can be found in the practice of setting industry standards. In standard setting, licensing on fair, reasonable, and non-discriminatory (FRAND) terms has long been commonplace. In that context, the requirement of RAND terms is understood by most participants to mean that the prices charged must not be excessive, exclusionary, or anticompetitive, basically the same criterion as laid down in Article 82(a). A reasonable price is a moderate one, bearing some rational relation to objective assessment of the innovative value added by the technology protected by the IPR, rather than a monopolist's desire to maximize its profits. In addition, in the words of the 2004 MS Decision, "restrictions should not create disincentives to compete with Microsoft, or unnecessarily restrain the ability of the beneficiaries to innovate."[125]

The 2004 MS Decision contained a useful limiting criterion: the royalties and terms and conditions "should not reflect the 'strategic value' stemming from Microsoft's market power in the client PC operating system market or in the work group server operating system market," which means that it can charge, at most, for the value of innovation proven to be included in the documentation. Even that may be too much: where the abuse is exclusionary, the licensee may have been deprived of the minimum efficient scale of operation that would have allowed it to support RAND royalties in a competitive environment. If that is the case, there is an argument that the royalty should be less until conditions of competition have been restored in the leveraged market, to ensure that the remedy has a useful effect.

But assuming that some innovative value is conveyed, and that price squeezing is avoided, what should the price be? The economic theory seems relatively clear. In competitive conditions, if the technology to be licensed is equivalent to alternative available technology, there is no reason to believe that the IPR owner, absent its monopoly, would find a buyer or be able to charge a positive price for it. Indeed, in a competitive and non-collusive environment, royalties for equivalent and competitive technical solutions would tend towards marginal costs, which is often close to zero in the case of IT. Where technologies are not equivalent, the fee for the lesser solution would tend to approach zero, with the owner of the better solution being able to charge no more than the incremental value that the licensee expects from the use of the better solution (for instance, because it saves costs, leads to expansion of demand, or allows the licensee to charge higher prices to end users). The fee for the better solution is no higher than the opportunity cost that the licensee would incur if it used the next best alternative.

Unfortunately, the economic theory appears difficult to apply in practice. It is perhaps most useful as a framework of reference that can be used to validate and verify the results of alternative pricing methods. Several methods might be employed. These methods have often been used in excessive pricing cases, but

125 2004 MS Decision, *supra* note 1, at para. 1008.

each has its own benefits and drawbacks. First, recourse can be had to Article 82's traditional criteria for determining reasonable prices in the context of the Article 82(a) case law and decisional practice on excessive pricing.[126] A useful starting point is a comparison of the price charged and the historical or long-run incremental cost of R&D. Another alternative is to focus on profits and not prices, and lower the price until a profit is achieved commensurate to the normal return on investment in competitive conditions in this industry. However, these calculations are fraught with difficulties in ordinary industries, and raise even more concerns in dynamic markets such as IT. Moreover, a focus on profits ultimately penalizes success where excessive pricing is absent.

> UNFORTUNATELY, THE ECONOMIC THEORY APPEARS DIFFICULT TO APPLY IN PRACTICE. IT IS PERHAPS MOST USEFUL AS A FRAMEWORK OF REFERENCE THAT CAN BE USED TO VALIDATE AND VERIFY THE RESULTS OF ALTERNATIVE PRICING METHODS.

A fallback would be to conduct a consistent comparison with the prices of similar products charged by the licensor in competitive markets, charged by licensor to its own downstream business, or charged by rivals for similar technology. Interestingly, it is argued, the type of information at issue in the *Microsoft EC* case is generally made available in the industry for free or for a nominal fee, and Microsoft itself makes similar information available for free where it suits its strategic goals.[127] Absent its monopoly position, the complainants argue that Microsoft would have an inherent interest in making the information at issue available for free since this would drive sales of its software products, in particular its desktop operating systems. Finally, it is argued that Microsoft is fully remunerated for the creation of the licensed information through the sale of client and server operating systems. The Commission is currently reviewing these arguments, and the result may have important precedent effect for future cases.

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126 *See, e.g.,* Case 26/75, General Motors v. Commission, 1975 E.C.R. 1367; Case 27/76, United Brands, *supra* note 106; Case 30/87, Bodson v. Pompes Funèbres des Régions Libéréés, 1988 E.C.R. 2479; Case 395/87, Ministère Public v. Tournier, 1989 E.C.R. 2521, at para. 38; and Deutsche Post, 2002 O.J. (L 331) 40.

127 For instance, for Webservices Specifications (WSTX), Microsoft:

(a) provides a reasonable, royalty-free copyright license to the specifications with relatively few restrictions; and

(b) provides a royalty-free license to any patents considered essential to implement the specifications.

See Microsoft License Agreement, *at* http://download.microsoft.com/download/8/e/5/8e59dce62b27-4fc3-bd00-0531c5514ae3/WSS_LicenseAgreement.pdf (accessed Feb. 13, 2007). *See also* Press Release, Microsoft Corporation, Microsoft Announces Availability of Open and Royalty-Free License For Office 2003 XML Reference Schemas (Nov. 17, 2003), *available at* http://www.microsoft.com/presspass/press/2003/nov03/11-17XMLRefSchemaEMEAPR.mspx.

The recent FTC remedy decision in *Rambus* is an interesting example.[128] When the FTC found that Rambus set a "patent ambush", it set a royalty of 0.5 percent for the patents in question (going to zero after three years), where Rambus had asked for a permanent royalty of 2.5 percent. In determining the terms of such a RAND license, the FTC noted the inherent difficulties attendant to reconstructing marketplace conditions that would have prevailed in the absence of anticompetitive conduct. The FTC held, however, that antitrust defendants should not be allowed to avoid appropriate remedies because determining the but-for world is challenging in practice.[129] The FTC found that a RAND license requires a royalty rate no higher than the *ex ante* value of the technology, which "is the amount that the industry participants would have been willing to pay to use a technology over its next best alternative prior to the incorporation of the technology into a standard."[130] That amount, the FTC found, takes proper account of the value of the technology to the IPR holder. To determine the specific royalty rate, the FTC turned to "real-world examples of negotiations involving similar technologies."[131]

Two comments should be kept in mind, however. First, even if the IP owner (or indeed anyone else) identified comparable technologies licensed for a fee, it does not mean that the IP owner should be allowed to charge an equivalent fee. It may be that the owner of the comparable technology is able to charge a fee only because the technology market is not competitive or because the IPR owner refuses to license the equivalent technology in the first place. In sum, comparables should be reviewed, but this should be done on a consistent basis and without allowing the IPR owner to charge a monopoly rent, which would be equivalent to a constructive refusal to license. General licensing practices in the industry may provide guidance also, on condition that they are properly applied, and result in a royalty no greater than justified by the extent to which the IPR owner's innovation constitutes part of the overall technology used in the product.[132] If it is at the core of the rival's product and very innovative, then it justifies a greater royalty than mere interoperability information at the edge of a rival's product.

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128 *See* FTC Final Order of February 2, 2007 and Opinion of the Commission on Remedy, In the Matter of Rambus Incorporated, *available at* http://www.ftc.gov/os/adjpro/d9302/070205opinion.pdf. *See also* Dissenting Opinion (Harbour), *available at* http://www.ftc.gov/os/adjpro/d9302/070205harbourstmnt.pdf and Dissenting Opinion (Rosch) (remedy should be royalty-free), *available at* http://www.ftc.gov/os/adjpro/d9302/070205roschstmnt.pdf.

129 Op. at 16-19.

130 Op. at 17.

131 Op. at 18.

132 *See, e.g.,* R. Goldscheider, New Companion to Licensing Negotiations: Licensing Law Handbook ¶ 7.02[8][b] (4th ed. 2002/3).

Second, for a remedy involving a compulsory licensing scheme to work, access must be set at a price low enough for an equally or more efficient licensee to compete effectively. In order for a remedy to have a useful effect and achieve its goal (elimination of the abuse as well as restoration of competitive conditions), in some cases, it may require the dominant firm to lower its fees to a sustainable level until competitive conditions have been restored, and further pricing can be left to the market.

As regards non-discrimination, differential treatment should be allowed only if it is justified by proportional objective considerations. This requires that the differential treatment

(1) attain a legitimate objective,

(2) that it is effective in attaining that objective,

(3) that it is necessary to obtain the objective (there is no less restrictive alternative), and

(4) a weighing of the interests of the parties involved (balance-of-interest test).

For example, a cross-license may justify a royalty readjustment if it is agreed to at arms' length and fair value is paid on both sides. Ultimately, the royalty system should ensure a level playing field between all participants in the market when dealing with the licensor. For instance, it should not discriminate between development models (proprietary versus open source models) or insiders and outsiders.

V. Conclusion

While IPRs confer exclusive rights, and a mere refusal to license is not an abuse, IPRs do not provide complete immunity from application of competition law. The use of IPRs—and indeed any other asset—as a tool for an abuse other than a refusal to license (such as unjustified discrimination, tying, exclusionary pricing and price squeezing, the unjustified disruption of supplies, restriction of innovation, standard manipulation or breach of FRAND promises given to a standard setting organization, unjustified refusal to allow rivals access to essential facilities, and even excessive pricing) can give rise to liability under Article 82 EC and equivalent provisions of national competition laws. Even then, two points should be kept in mind: first, the fact that the abuse involved a refusal to license an exclusive IPR may be invoked as a justification. It is submitted that the proper balancing tools to evaluate such a defense and distinguish between legitimate and abusive exercise of IPR is the essential function test, always keeping in mind the policy goal of IPRs to provide innovation incentives, and the proportionality test. Second, a compulsory license may be imposed to remedy the abuse only if such a remedy is appropriate and proportionate to redress the abuse, and regen-

erates innovation incentives more than it restricts them. In practice, these two points require the same balancing exercise. Interoperability and standards cases are arguably special in this respect. Encouraging interoperability with monopoly platforms is one of the situations where this balancing exercise suggests a compulsory license is appropriate. Denying interoperability with a monopoly platform raises barriers to entry in the markets for complementary products, as well as (crucially) the market for the platform itself. Interoperability with monopoly platforms normally increases innovation incentives for third parties as well as those of the owner of the platform with which interoperability is sought.

In the circumstances of *Magill* and (according to the 2004 MS decision) *Microsoft EC*, copyrights and trade secrets (and, in future, patents) were used in a fashion inconsistent with the essential function of IPRs, namely, to suppress rivals' incentives and capability to innovate, without countervailing benefit: the broadcasters' incentives to improve their program guides and Microsoft's incentives to advance its interoperability protocols were not dependent on continued protection of exclusive rights. To the contrary, the reduction of competition may have increased the funds they had available for innovation, but reduced their incentives. Thus, IPRs were used in a manner at odds with their goals, or at least in a manner that was not proportionate or necessary to maintain innovation incentives.

In *Magill*, *IMS*, and *Microsoft EC*, reference is consistently made to the exceptional-circumstances test, but it would seem that this test has no independent meaning. The exceptional circumstances were defined in terms of the abuse addressed in those cases (restriction of innovation to the prejudice of consumers). It may well be that cases of abuse are exceptional, but the test seems to impose no additional burdens or requirements on the plaintiff in specific cases. It is hoped that the CFI in *Microsoft EC* will clarify this.

At this stage, one conclusion can be drawn: There is a dearth of quantitative information about the actual contribution of IPRs to innovation. Much of the support of IPRs is based on a general understanding that exclusive rights encourage investment in innovation, and that they therefore benefit consumer welfare and society overall. This is a matter of common sense and almost religious belief, but cannot be used as a hard and fast rule. Thorough and independent quantitative studies in different industry sectors would be very welcome. The very existence of the open standards-based Internet and the work done by the open source community indicates that at least in some sectors, innovation is not dependent on exclusive IPRs. Similarly, even in industries where IPRs are needed, IPRs are blunt instruments, and not always well-adapted to the specific situations in which they are invoked. There are cases where IPRs are perverted to achieve commercial objectives antithetical to the policy goals the legislature sought to achieve. In the rare case that involves a restriction of competition, experience suggests that competition law can be used as a balancing tool. It remains to be seen, however, what the CFI will decide in *Microsoft EC*.

Ultimately, for a compulsory licensing scheme to work, remedies must be implemented in a timely and effective manner. Unwilling defendants should not be allowed to fix the licensing terms and conditions, because incentives are to deprive the remedy of useful effect. Access must be set at a price low enough for the licensee to compete effectively and restore conditions of competition. Where the abusive conduct has deprived the victim of economies of scale and market opportunity, it may not be able to sustain a level of royalties that it could have readily borne had the market remained competitive. This may in some cases mean that royalties should be lowered below that level until competitive conditions have been restored, and further pricing can be left to the market. ◀