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# Technology Competition and Regulatory Advantage

The importance of competition law as a policy lever to help the EU compete at the forefront of science and technology seems to have been overlooked by the Commission. As a consequence, the EU appears to be at a disadvantage to the USA in terms of the regulatory environment for intellectual property and licensing practices. This article examines these differences and explores the pros and cons of the European and American approaches to competition law, ultimately arguing in favour of regulatory harmonisation.

The 2010 OECD report on “Innovation Strategy”<sup>1</sup> gave member governments a clear direction: with the globalisation of production and exchange constantly altering the international division of labour, advanced market economies have no choice but to compete at the forefront of science and technology. Recognising its deficiencies, particularly *vis-à-vis* the United States, the EU launched its Lisbon Strategy a decade ago: an overreaching policy agenda meant to induce national R&D expenditure targets, education and skill-building measures, as well as various labour, capital and general market reforms. In the ensuing process of dealing with multiple stakeholders and frequent policy setbacks, the Commission seems to have overlooked a policy lever that is already largely under its own control: competition law – in itself a significant factor in shaping inventive and innovative performance. It is the focal point of this article, which will sketch some concerns regarding the applicability of competition policy norms to high-tech sectors, compare US and EU approaches to assessing intellectual property as essential facilities and evaluate their licensing practices, and examine whether competition will erode the current US regulatory advantage or if regulatory convergence requires more formal policy coordination.

## Technological Advance and Competition Norms

Toynbee ties the rise and fall of civilisations to their capacity to exploit and share the latest available techniques.<sup>2</sup> Similarly, Solow, in his Nobel Prize lecture,

links advances in product and process technology to no less than 85% of the United States’ GNP growth during the first half of the 20th century.<sup>3</sup> And yet, even though technological progress is recognised as by far the most important driver of economic wealth creation, there is surprisingly little policy guidance on how to target and efficiently capture its benefits.

For one, economic research does not present a blueprint for relating market structure, ownership and inventive/innovative performance: prominent biases in favour of market concentration, public ownership or inventive rivalry do not withstand empirical tests.<sup>4</sup> Our intuition comfortably accepts the relationship between innovation and extreme forms of market structure – the small, nimble inventor and the large-scale, resourceful innovator – but often medium levels of concentration and firm size appear the most innovative.<sup>5</sup> No wonder that policymakers time and again are drawn to a more “hands-on” if less tangible objective:

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- 1 OECD: Innovation Strategy, Paris. A report issued to member governments in May 2010.
- 2 A. Toynbee: Mankind and Mother Earth: A Narrative History of the World, Granada 1978.
- 3 R.M. Solow: Technical Change and the Aggregate Production Function, in: Review of Economics and Statistics, Vol. 39 (1957), pp.312-317; R.M. Solow: Growth Theory and After, Nobel Prize Lecture, 8.12.1987, Stockholm 1987.
- 4 A. Schumpeter: Theorie der wirtschaftlichen Entwicklung, Duncker & Humboldt; Leipzig, 1912; K. Arrow: Economic Welfare and the Allocation of Resources for Invention, in R.R. Nelson (ed.): Rate and Direction of Inventive Activity, Princeton University Press, 1962.
- 5 P. Aghion et al.: Competition and Innovation: An Inverted U Relationship, in: Quarterly Journal of Economics, May 2005, Vol. 120, No. 2, pp. 701-728.

the promotion of entrepreneurial activity.<sup>6</sup> But the requisite insights into entrepreneurial motivation and its link to economic welfare are equally scarce.

Certainly, there is no dearth of business classics counselling how to track, manage and strategically use technology; to tie technology to complementary assets to build and extend copy protection; or to set new industry standards and profit from network benefits.<sup>7</sup> But there is no advice for policymakers searching for norms to efficiently motivate and monitor the creation, use and leverage of intellectual property. And at each of these steps, welfare trade-offs need to be addressed.

Patents promote research by temporarily limiting followers' ability to compete away profits; they require the disclosure of information that could be used to circumvent the original design and thereby foster innovation and diffusion. But these benefits are not without risks. *Ex ante*, overstretched patent officers may grant monopoly status to some unrecognised prior art rather than only to non-obvious novelties. *Ex post*, patents may give rise to monopolistic pricing or, by means of technology licenses or methods of standard setting, affect related stages of production and user networks in ways that result in welfare losses. Standards create markets and reduce search costs but, in the presence of switching costs, entail a hold-up risk for producers of complementary products and final consumers. Similarly, a network benefit, i.e. the value to an individual user resulting from the growth of the user community, implies a *de facto* standard and a reduction in choice, which provides the dominant supplier with the ability to abuse its position. To assess potential welfare trade-offs, policymakers and courts need to compare the impact and reasonableness of a given use of intellectual property with a prior situation and/or alternatives. But the need for detailed case analysis is sometimes overridden by calls for new antitrust standards to deal with so-called high-tech, "knowledge-based" industries or, conversely, the out of context applica-

tion of established legal doctrines to issues involving intellectual property. Neither approach suffices.

Regarding the former, there has been a continuum of opinions on both sides of the Atlantic ranging from those that reject antitrust involvement in high-tech industries to avoid undermining investment incentives to those that want to see it limited to truly exceptional cases and particularly where markets seem unable to naturally erode the power of a dominant player.<sup>8</sup> In the first case, industrial policy concerns surreptitiously replace competition policy objectives; in the second, enforcement agencies are seen as being unable to cope with the complexities of technology and market transformation, the need for pre-competitive collaboration or the impact of scale and learning on market dominance. Clearly, none of this justifies granting high-tech industries any form of antitrust exemption.

As regards the second case, the problem remains which standard to use to efficiently motivate and assess the creation, use and leverage of intellectual property. On both sides of the Atlantic, antitrust authorities approach IP as an "essential facility" and as the source of licensing. But there are important differences.

## Intellectual Property, Essential Facility and Licensing Rules

### Essential Facility and Intellectual Property

Enforcing access to a monopolist's essential facility opens up markets but impinges on his property rights and interest to create and maintain the vital resource. Not surprisingly, while central to US antitrust history<sup>9</sup>, the doctrine has undergone various refinements in an attempt to limit its application. Rather recently, in *MCI v. AT&T*, the Seventh Circuit<sup>10</sup> reviewed AT&T's rationales for refusing to interconnect MCI's long distance communication to its local telephone systems. In siding with MCI, the court required the plaintiff to establish that:

6 T.K. McGraw: Prophet of Innovation: Joseph Schumpeter & Creative Destruction, Harvard University Press, 2007.

7 See for example W.J. Abernathy, K.B. Clark: Mapping the Wind of Creative Destruction, in: Research Policy, Vol. 14 (1985), No. 1, pp. 2-22; D.J. Teece: Profiting from Technological Innovation: Implications for Integration, Collaboration, Licensing and Public Policy, in: D. Teece (ed.): The Competitive Challenge: Strategies for Innovation and Renewal, Cambridge 1987, MA; Ballinger; S.M. Besen, J. Farrell: Choosing How to Compete: Strategies and Tactics in Standardization, in: Journal of Economic Perspectives, Vol. 8, No. 2, Spring 1994, pp. 117-131; See also M.L. Katz, C. Shapiro: Systems Competition and Network Effects, in: Journal of Economic Perspectives, Vol. 8, Nr. 2, Spring 1994, pp. 93-115.

8 See for example, D. Teece, M. Coleman: The Meaning of Monopoly: Antitrust Analysis in High-Technology Industries, in: 43 Antitrust Bulletin, Vol. 43, No. 3/4 (Fall-Winter 1998), pp. 801-857; S. Tilford: Is EU competition policy an obstacle to innovation and growth? Centre for European Reform, London 2008.

9 See United States v. Terminal Railroad Association of St. Louis, 224 U.S. (1912).

10 708 F.2d 1081, 7th Cir. 1983.

- the monopolist controls admission to an essential facility;
- the facility cannot be reasonably duplicated by a competitor;
- the monopolist blocks competition;
- it is feasible for the monopolist to grant access.

Since then, elements of the “MCI test” have been refined and expanded, but even the Supreme Court has shunned its use.<sup>11</sup> Areeda, for one, cannot “find any case that provides a consistent rationale for (...) requiring the creator of an asset to share it with a rival. It is less a doctrine than an epithet indicating some exceptions to the right to keep one’s creation to oneself, but not telling us what those exceptions are.”<sup>12</sup> For Hovenkamp, “essential facility” is a detrimental doctrine that should be dismantled.<sup>13</sup> Still, there is a lively debate on whether it could be applied to intellectual property rights.

Intellectual property may constitute an essential facility, i.e. a bottleneck to competition. On the one hand, Pitofsky et al.<sup>14</sup> assert that intellectual property must be licensed to rivals if it gives the right holder monopoly power in the market for the product incorporating it, rivals cannot duplicate the intellectual property without infringing upon the owner’s rights, and the right holder, without any business justification, refuses to grant a license within its power to give. Their interpretation of recent case law has been criticised by some who categorically disagree with any “sweeping application” of essential facility reasoning. Marquart and Leddy<sup>15</sup>, for instance, cite the US Antitrust Guidelines for the Licensing of Intellectual Property,

11 In *Aspen Skiing Co. v Aspen Highlands Skiing Corp.*, dealing with the sudden termination of a joint venture between the large, multi-valley lift operator (defendant) and his smaller partner (plaintiff) without any business justification, the Supreme Court discussed the case in terms of refusal to deal, its impact on consumer welfare and the underlying strategic intent. What is more important here is that the Supreme Court avoided essential facility reasoning, simply because the underlying doctrine was seen to raise more questions than it is able to answer. *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.* 472 U.S. 585 (1985).

12 P. Areeda: Essential Facilities: An Epithet in need of Limiting Principles, in: *Antitrust Law Journal*, 58 (1990), p. 841.

13 F. Hovenkamp: *Federal Antitrust Policy: The Law of Competition and its Practice*, St. Paul 1994.

14 R. Pitofsky, D. Patterson, J. Hooks: The Essential Facility Doctrine under U.S. Antitrust Law, in: *Antitrust Law Journal*, No. 70, 2002, pp. 443-462.

15 P.D. Marquart, M. Leddy: The Essential Facilities Doctrine and Intellectual Property Rights: A Response to Pitofsky, Patterson, and Hooks, in: *Antitrust Law Journal*, Vol. 70, 2003, pp. 847-873; here p. 848.

which expressly state that “(i)f a patent or other form of intellectual property does confer market power, that market power does not by itself offend antitrust laws. (...) Nor does such market power impose on the intellectual property owner an obligation to license the use of that property to others.”<sup>16</sup> Also, it is argued that requiring a “business justification” simply opens up a futile debate about what constitutes legitimate strategic intent. A refusal to license is by definition exclusionary and inspired by the desire to impose a relative disadvantage on a rival; in fact, even “(t)he desire to crush a competitor, standing alone, is insufficient to make out a violation of the antitrust law.”<sup>17</sup> To the extent that the source of the competitive advantage has been legally acquired, the question is whether it is being legitimately used.

Two decisions by the Federal Trade Commission (FTC) strengthen their point of view: In *Intel Corp.*<sup>18</sup>, the FTC, considering a case of a dominant supplier allegedly attempting to entrench its position by anticompetitive means, nevertheless held that it was legitimate for Intel to withhold its intellectual property from rivals that would use it to directly compete with Intel’s monopoly product. In *E.I. du Pont de Nemours & Co.*, the FTC, considering DuPont’s refusal to license its superior titanium dioxide process combined with pricing strategies to capture the entire market, found “no basis for concluding that DuPont’s refusal to license its technology, whether taken separately or together with the other conduct, was unjustified.”<sup>19</sup>

Apparently, US enforcement agencies did realise that applying the 7th Circuit Court’s condition in *MCI v. AT&T* to patents, as suggested by Pitofsky et al., by necessity calls for intervention and turns the notion of intellectual property upside down. Their EU counterparts, however, hold different views. In fact, “there is no doubt in the European Union that a refusal to license may raise antitrust liability and the doctrine of essential facility may be applied to intellectual property rights.”<sup>20</sup>

16 US Department of Justice and Federal Trade Commission (1995): *Antitrust Guidelines for the Licensing of Intellectual Property*, para 2.2. quoting *United States v. Grinnel Corp.*, 384 U.S. 563, 571 (1966).

17 *Ocean State Physicians Health plan, Inc. v. Blue Cross & Blue Shield*, 883, F.2d, 1101, 1113 (1st Cir. 1989).

18 *Intel Corp.*, Agreement Containing Consent Order, FTC Docket No. 9288 (17 March 1999).

19 *E.I. du Pont de Nemours & Com.* 96 T.T.C. 653, 1980 FTC LEXIS 14, (20 October 1980), at 206.

20 F. Lévêque: Innovation, Leveraging and Essential Facilities: Interoperability Licensing in the EU Microsoft Case, in: *World Competition*, 28 (1), 2005, pp. 71-91.

Relative to the US focus on monopoly power in line with Section 2 of the Sherman Act, Article 82 of the EC Treaty prohibits abuse by dominant parties by way of both exploitative practices and exclusionary conduct. Accordingly, the EU asserts that as “a general principle an objectively unjustifiable refusal to supply by an undertaking holding a dominant position on a market constitutes an infringement of Article 86.”<sup>21</sup> Although the European Court of Justice (ECJ) deems dominant companies to be entitled to protect their own commercial interests if attacked, it has imposed on them a “special responsibility not to impair competition.”<sup>22</sup> In fact, according to the ECJ’s judgement in *IMS Healthcare*<sup>23</sup>, a firm can be ordered to license its IP if such IP is considered indispensable for carrying on a particular business where a competitor does not merely duplicate existing products and where market demand is insufficient. Relative to this weakening of IP protection in Europe, US courts appear to be moving in the opposite direction. While Kodak saw courts reject its unilateral refusal to sell and license patented parts to independent service organisations in 1992, Xerox’s identical refusal was granted absolute immunity from antitrust liability in 2000.<sup>24</sup> A similar pattern appears when comparing US and EU views on licensing practices.

### Licensing Rules

In 2007, the US Department of Justice (DoJ) and the FTC published the results of an extensive review of commentaries, written submissions and academic literature relating to intellectual property, licensing and antitrust concerns.<sup>25</sup> The results point to the need for a case-by-case assessment of what in the past might have been considered objectionable *per se*. To contrast two extremes:

*Collaboration* may result in technology standards that expand markets and propel technology diffusion by limiting product and technology choice. Standard setting organisations (SSOs) are normally used to mitigate the inherent hold-up risk. They typically require par-

ticipants to disclose the existence of IP rights and to license any of their IP essential to the standard at “reasonable and non-discriminatory” terms. In addition, SSOs may impose commitments to specific licensing terms before selecting the technology standard. Obvious antitrust concerns range from defining reasonable and non-discriminatory terms and determining whether an SSO holds an objectionable monopsony power *vis-à-vis* their potential members to establishing if and when *ex ante* negotiations of licensing terms amount to a *per se* violation of Section 1 of the Sherman Act. In addition, other mitigating strategies need to be assessed: cross-licensing and patent-pooling help to avoid hold-up risks and the problems of royalty stacking but could also result in price-fixing, coordinated output restrictions and the foreclosure of innovation.<sup>26</sup> Similarly, grant backs, non-assertion clauses and reach-through licensing agreements<sup>27</sup>, although generally considered to enhance efficiency, may also dampen incentives to innovate and compete. In either case, Agencies currently hold that “(i)n the absence of nakedly anticompetitive restraints by an SSO or by its members, it is appropriate to determine whether an SSO’s efforts to reduce opportunities for IP holders to hold up future users of a standard violates the antitrust laws pursuant to the rule of reason.”<sup>28</sup>

Conversely, a *stand-alone company* may decide to single-handedly capture the value of its invention and reject all licensing demand, which in itself does not necessarily raise regulatory concerns. In fact, a refusal to license may even be considered welfare-improving if it, for instance, entails some form of price discrimination or promotion of downstream partners that expands the business. Moreover, in line with the general change in US regulatory perspectives, even conditional licensing – effectively tying and bundling intellectual property rights<sup>29</sup> – may be found acceptable.

In fact, relative to the Supreme Court’s earlier *per se* condemnation of tying as merely supporting “the suppression of competition,”<sup>30</sup> decision standards have

21 Polaroid/SSI Europe: Thirteenth Report on Competition Policy (1983), p.157.

22 T.W. Wesseley et al.: Seeking rules for ‘the only game in town’, in: Global Competition Review: Dominance, 2005, p.3.

23 Case C-418/01, *IMS Health GmbH & Co. OHG v. NDC Health GmbH & Co. KG* (2004) (Judgment of the Court (Fifth Chamber) of 29 April 2004), available at <http://www.curia.eu.int/en/content/juris/index.htm> (29 April 2004).

24 *In re: Independent Service Organizations Anti-trust Litigation* (CSU et al. v. Xerox Corporation), 203 F.3d 1322. Compare with *Eastman Kodak Co. v. Image Technical Services, Inc.*, 504 U.S. 451, 112 S. Ct. 2072 (1992).

25 See U.S. DoJ & FTC (2007) op. cit., T.O. Barnett (2007), op. cit.

26 See R. Gilbert, C. Shapiro: Antitrust Issues in the Licensing of Intellectual Property: The Nine No-No’s Meet the Nineties, in: Brookings Papers on Economic Activity, 1997, pp. 325-26.

27 Non-assertion clauses commit contracting parties not to assert patent or other IP rights against the other contracting party. Reach-through licensing agreements grant the owner of a patent on an upstream tool the right to receive consideration based on sales or usage of a subsequent downstream product created with that tool.

28 DoJ and FTC (2007) op. cit., section 2.

29 Though technically distinct, US case law often uses “tying” and “bundling” interchangeably to denote the linked sales of two products.

30 337 U.S. 293, 305-06 (1949).

shifted to require inquiry into market conditions and potential pro-competitive justifications. Also, the Supreme Court recently acknowledged that “(m)any tying arrangements (...) are fully consistent with a free, competitive market.”<sup>31</sup> And yet, Agencies and the courts still lack a unified approach to dealing with the tying and bundling of intellectual property. For example, in 1999, the US Court of Appeals for the Eleventh Circuit had followed the Supreme Court’s earlier *per se* ruling when opposing package licensing for TV programming in *Loew’s*<sup>32</sup>. Just two years later, the US Court of Appeals for the D.C. Circuit’s decision in *United States v. Microsoft* rejected application of the *per se* rule to potentially welfare enhancing strategies. Today, the FTC and DoJ propose a rule of reason approach to balance anticompetitive and efficiency effects in line with the Antitrust-IP Guidelines.<sup>33</sup>

By contrast, in the EU, a dominant firm’s “special responsibility not to impair competition” translates into a rather narrow standard for assessing IP licensing. The EU’s shift from a notification towards a self-evaluation system resulted in a range of possibly applicable block exemptions, commonly involving *de minimis* safe harbours and listings of *per se* non-acceptable, blacklisted hardcore restraints.<sup>34</sup> More generally speaking, the Commission will intervene “not just if the agreement restricts inter-brand or inter-technology competition that existed prior to the agreement, but also if the agreement restricts intra-brand and intra-technology competition created by the agreement.”<sup>35</sup> Also, the Commission continues to hold on to an “as efficient competitor” test<sup>36</sup> to establish whether the dominant company itself would survive its own exclusionary

conduct if targeted. Clearly, whereas the former imposes a much stricter counterfactual standard than would be required by US IP Guidelines<sup>37</sup>, the latter neglects the crucial impact of timing in technology competition. Acting on an opportunity first may foreclose the market to an equally efficient player who is just too late. Hence, applying the “as efficient competitor” standard not only risks over-enforcement but in the particular context of assessing technology licensing may render futile any attempt to win a technology race and set industry-wide standards. Finally, the EU’s view on horizontal and vertical arrangements – such as non-competes, exclusive licenses, grant backs or discriminatory licensing terms – suggest that several licensing practices that are lawful under US antitrust standards would be considered a violation of EU competition law. In the words of a critic “(c)onsiderations that right holders should be able to decide how their IPRs are exploited, and how to maximise their returns as an incentive for future investment, play a lesser role in European competition law.”<sup>38</sup> In light of the recommendations made in the OECD 2010 report, could there be a more damning indictment?

### Microsoft – a Case in Point

In March 2004, following five years of investigation, the European Commission handed down its decision against Microsoft, resulting in the highest fine ever levied against a single firm under EU competition law (€497 million).<sup>39</sup> The Commission found that the software supplier had abused its dominant position by refusing to supply information required to ensure the interoperability between its Windows and competing operating systems and also by bundling its Media Player with the Windows software. Three years earlier, the US Court of Appeals for the D.C. Circuit had found Microsoft’s strategies in the browser market to warrant condemnation under Section 2 of the Sherman Act, especially as Microsoft failed to provide an adequate justification for them.<sup>40</sup> Yet while the EU ordered Microsoft to offer an unbundled version of Windows to PC makers, that remedy had been explicitly rejected by US regulators as one that would merely stifle in-

31 Ill. Tool, 126 S. Ct. at 1292. See also ABA Section of Antitrust Law (2002) Antitrust Law Developments, 5th ed.

32 MCA Television Ltd. v. Pub. Interest Corp., 171 F.3d 1265, 1277-78 (11th Cir. 1999) (citing *Loew’s*, 371 U.S.).

33 They are apt to challenge a tying arrangement if: “(1) the seller has market power in the tying product; (2) the arrangement has an adverse effect on competition in the relevant market for the tied product; and (3) efficiency justifications for the arrangement do not outweigh the anticompetitive effects. If a package license constitutes tying, the Agencies will evaluate it pursuant to the same rule of reason principles they use to analyze other tying arrangements.” US DoJ and FTC (1995) Antitrust Guidelines for the Licensing of Intellectual Property, op.cit. § 5.3 & n.34 (1995).

34 See for example Commission Regulation (EC) No. 772/2004 on the application of Article 81(3) of the Treaty to categories of technology transfer agreements, [2004] OJ L123/11 and the relevant guideline (2004) OJ C101/2. For an overview see C. Norall, R. Gerrits: R&D Cooperation, Licensing and Marketing in the Biotechnology Field – EC Competition Law Aspects, in: World Competition 29 (2), 2006, pp.229-246.

35 L. Peepkorn: IP Licenses and Competition Rules: Striking the Right Balance, World Competition, 26 (4), 2003, pp. 527-539, p.533.

36 See E. Elhaage: Defining Better Monopolization Standards, in: Stanford Law Review, Vol. 56, 2003, pp. 253-286.

37 For a discussion see R.C Lind, P. Muysert: Innovation and Competition Policy, in: European Competition Law Review, Vol. 87, 2003, pp. 91-112.

38 W.E. Kovacic, A.P. Reindl: An Interdisciplinary Approach to Improving Competition Policy and Intellectual Property Policy, in: Fordham International Law Journal, Vol. 28, 2005, pp. 1062-1090, here p.1072.

39 EU Commission, IP/04/382, 24.03.2004; <http://ec.europa.eu/comm/competition/anti-trust/cases/microsoft/index.html>.

40 253 F.3d at 93.

novation and competition to the benefit of Microsoft's competitors.

The Commission's decision, which was upheld by the EU's Court of First Instance in September 2007 and cannot be appealed before the European Court of Justice, is hardly motivated by protectionism or anti-US sentiment. After all, most firms that are likely to benefit from the EU's intervention are also US-based. Rather, it reflects a general scepticism *vis-à-vis* the ability of market forces to tackle dominant players and a readiness to intervene, even at the risk of stifling innovation and forgoing network benefits.<sup>41</sup> This stands in stark contrast to the position of US antitrust enforcement agencies. In the words of Thomas Barnett, Assistant Attorney General Antitrust Division, "(a)ntitrust does not protect competition for its own sake; instead, it protects competition as a force that leads to increased efficiency, growth, and consumer welfare. (...) Intellectual property is such a beneficial force (...) and patent protection — which authorises a restraint on some forms of competition — is a necessary component of creating the incentives for technical change. Antitrust enforcers should aggressively pursue threats to competition, remembering that competition is itself a force for technical change, but should be careful that they do not chill innovation in the process."<sup>42</sup>

### Towards Regulatory Convergence?

Differences in regulatory standards distort competition and opportunities for value capture. At the firm level, they may allow for regulatory arbitrage and forum picking or force companies to self-regulate in line with the most restrictive jurisdiction.<sup>43</sup> At the country level, a relatively rigid and over-enforced standard may be seen to chill pro-competitive and innovative

conduct, whereas lax or under-enforced policies may cause inefficiencies and lasting damage to domestic markets and competition. However, in international, IP-based competition, particularly in the presence of scale, learning and network effects, under-enforced policies may constitute a regulatory advantage, offering some domestic infant industry support in pursuit of global network standards and a national technology edge. Inevitably, concerns over a level playing field trigger initiatives towards regulatory harmonisation. But is there really a need for formal regulatory coordination or will standards converge in line with market pressures?

The EU's own "single-market" initiative may provide some insight here. In the post-Maastricht period, the Commission's interest in the large-scale harmonisation of national rules required consensus on detailed legislative standards and their translation into national technical norms. This soon gave way to the principle of "mutual recognition", which forced competing regulators to identify the floor of common rules. Regulatory competition, in turn, increased the diversity and complexity of rules and renewed the interest in centralising policymaking within functional directorates or external agencies with rule-making and direct enforcement powers.

Today, the debate continues to pitch proponents of more unified European policymaking against those who are concerned about the representation of national interests or the control of potentially unwieldy federal bureaucracies. Yet while there are strong arguments in favour of regulatory competition and delegation, there is an even stronger case for coordinating rules. Certainly, public choice theorists suggest that decentralised regulation better reflects local conditions and, in the extreme, could lead to market-driven lawmaking. From this perspective, harmonising rules or centralising regulation amounts to colluding in markets for regulatory control.

However, for regulatory competition to work, factors must be mobile, markets open and rules predictable. Put differently, regulatory harmonisation, especially in the area of competition policy, is often a precondition for regulatory and proper market competition. Translating the OECD 2010 report on "Innovation Strategy" into action, therefore, requires concerted efforts within the international antitrust community to achieve consensus on the role of competition law enforcement in contributing to innovation and an efficient dissemination of technology. Clearly, the EU stands to gain from this.

41 The Commission's attitude is also reflected in the following commentary. "The aim (of IP laws) is not to promote the individual innovator's welfare, (but) (...) to ensure a sufficient reward for the innovator to elicit its creative or inventive effort while not delaying follow-on innovation or leading unnecessary periods of high prices for consumers." Peeperkorn *op. cit.*, p. 528.

42 T.O. Barnett: Recent Developments in Antitrust & Intellectual Property Law, American Conference Institute's Third Annual In-House Counsel Forum on Pharmaceutical Antitrust New York, New York, 16 May 2007, p. 3.

43 For example, Microsoft limited the remedy sought by the Commission only to EU Member States and did not make any changes to its product integration strategy outside the EU, including the United States. Meanwhile, IBM changed its worldwide business strategy in compliance with remedies sought by the EU, even though outside Europe its conduct was not found to be anticompetitive. Put differently, the more restrictive EU rule became IBM's standard of operation. See *International Business Machine Corp. v. Commission*, Case 60/81, (1981) ECR 2639.