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## Economic Commission for Europe

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#### **Review of the implementation of the programme of work since the sixth session:**

**Team of Specialists on Intellectual Property**

## **Good practices and policy recommendations: Intellectual property and competition policy as drivers of innovation**

### **Note by the secretariat**

#### **I. Introduction**

1. In its Programme of Work for 2012-2013, the UNECE Committee on Economic Cooperation and Integration (CECI) mandated the secretariat to develop a number of good practices and policy recommendations in the main areas of CECI's work for consideration at its seventh session (ECE/CECI/2011/5, p.3, para. III.A.1(a)).
2. The present note presents good practices and policy recommendations on intellectual property and competition policy. It is based on the presentations and discussions at the substantive segment of the sixth session of the Team of Specialists on Intellectual Property (TOS-IP) held in Geneva on 21-22 June 2012. It reflects and benefits from the experiences of all relevant stakeholder groups, including national policymakers from intellectual property offices and competition authorities, global IPR owning companies, small and medium-sized enterprises, as well as relevant international organizations.
3. The note is structured as follows. The second section discusses the role of intellectual property and competition policy as key drivers of innovation and knowledge-based development. The third section focuses on unfair competition and intellectual property rights enforcement, i.e. on situations where a competitively weak company misuses a competitor's intellectual property to mislead customers and to thereby gain an unfair competitive advantage. The fourth section discusses good practices on how competition authorities should treat cases involving intellectual property, i.e. situations where a company may be using its own legitimate intellectual property to gain excessive market power. The fifth section focuses on the appropriate balance between competition law and policy on the one hand, and intellectual property law and policy on the other hand,

and on policy options to restore this balance if and when it has been upset. The sixth section summarizes the main conclusions and recommendations.

## II. The Role of Intellectual Property and Competition Policy in Promoting Innovation

4. Market competition can be thought of as a “stick” which prods companies to innovate. Competition encourages innovation in two ways. First, it pressures companies to introduce new or improved products or services that win them additional customers, or to keep up with the innovations introduced by their competitors. Second, competition creates pressure to reduce the costs or improve quality of existing products. One way of achieving this is by employing better machinery and equipment or better materials. Thus, the competitive pressure in the downstream market can translate into *demand for innovations* by the upstream manufacturers of the machinery, equipment or materials used to manufacture the downstream product.

5. It might be tempting to think that competition is a zero-sum game in which one company’s gain is another company’s loss. However, from a public policy point of view, the benefits of competition do not accrue to companies, but to consumers: everybody gains from the fact that competition induces companies to introduce new, better or cheaper products and services.

6. If competition is too fierce, if the “stick” is too powerful, companies will be unable to earn a sufficient return on the substantial investments which innovation often requires, because imitators poach customers by selling at lower prices. This may discourage companies from innovating.

7. Intellectual property rights can address this problem. They grant to inventors or creators a (mostly temporary) exclusive right to the commercial use of their inventions or creations. This exclusive property right protects innovators from imitating competition, and thereby enables them to earn an adequate, risk-adjusted return on their investment. The return on innovation, which intellectual property rights promise can be thought of as a “carrot” which rewards innovators.

8. As such, both competition law and policy, and intellectual property law and policy share the same goal, which is to encourage innovation. Moreover, it can be argued that intellectual property, by virtue of enabling businesses to differentiate their products, promotes competition based on product differentiation and product quality, whereas in the absence of intellectual property, the only viable competition would be cost-based competition in uniform products.

9. Intellectual property rights may confer a degree of market power, although not necessarily – indeed, usually not – a monopoly. Many intellectual property rights are never practiced and their commercial value is zero. This is the case for roughly 80 per cent of all patents granted. Another 15 per cent have very little commercial value, and only the top 5 per cent have significant value because they confer significant market power.

10. The degree of market power which intellectual property rights may confer is limited by a number of factors. First, some intellectual property rights, such as trademarks, serve to distinguish the products of one company from those of its competitors. But any company is free to create and register its own trademarks and to compete on that basis. Second, even though one company may have a patent on a certain technology embedded in its product, its competitors may be able to “engineer around” that patent, i.e. they may be able to use alternative technologies to achieve the same or similar properties in their own products. Third, companies usually do not own all the intellectual property rights to the technologies

which go into their products. They typically license some of them from other companies. The owners of these technologies often license them to more than one company, enabling the various licensees to compete with each other.

### **III. Unfair Competition Rules and Intellectual Property Rights Enforcement**

11. Unfair competition laws are designed to protect customers from business practices which are intended to gain a competitive advantage by misleading or confusing customers as to the true nature of the product or service they are buying. One example of unfair competition would be if a company uses a name or logo or design which is identical or confusingly similar to those of a competitor in an effort to pass off its own products as being identical or qualitatively similar to those of that competitor, or of being associated with the brand of a competitor. To the extent that the name, logo or design in question is protected by intellectual property, such as trademarks or registered industrial designs, this would constitute not only unfair competition, but also an infringement of intellectual property rights. As such, intellectual property law and unfair competition law can complement each other in enforcing certain intellectual property rights. The two areas of law in the goal of promoting innovation in that both unfair competition and intellectual property rights infringements can inflict harm on innovative companies and can reduce their ability or incentives to invest in innovation.

12. While legal action under the intellectual property laws typically has to be initiated by the legitimate owner of the intellectual property right in question, legal action under unfair competition laws can also be initiated *ex officio* by consumer protection agencies or market inspectorates. However, the remedies available under unfair competition law frequently only extend to injunctive relief against the marketing of the products using confusingly similar trademarks or designs. Intellectual property law by contrast also provides for damages to be paid by the infringer to the lawful owner of the intellectual property rights.

### **IV. How to Assess the Competitive Effects of Intellectual Property**

13. From a competition policy point of view, it is today generally accepted that intellectual property rights are not per se anti-competitive. Situations where an innovative company has gained a measure of market power by using its intellectual property rights to exclude imitating competitors are not a concern for competition policy, but reflect the intended use of the intellectual property rights granted to the innovator as a reward for his inventiveness, and as an incentive for future innovation.

14. In particular, a unilateral and unconditional refusal on the part of the owner to make an invention or creation available to a competitor is not considered anti-competitive behaviour because the right to exclude others is the essence and main intended use of any intellectual property right. In fact, if unilateral unconditional refusal to deal was considered anti-competitive, the implication would be that companies have to actively assist their competitors in obtaining access to critical technology. Such active assistance among competitors would fly in the face of vigorous competition and might instead invite collusion.

15. Still, certain uses of intellectual property rights may create undue or excessive restrictions on competition, and particularly on competition from innovative rather than imitating companies. It is generally accepted that the principles of competition law which

apply to the use of other forms of property can be applied to intellectual property cases as well, and that there is no need to establish a separate set of competition law principles just for intellectual property uses.

16. Nonetheless, leading anti-trust authorities have produced detailed guidelines which explain the principles which they use to assess competition cases involving intellectual property rights. Issuing such guidelines is considered an important good practice because it helps businesses to understand the limits from a competition policy point of view of how they can use their intellectual property rights. This understanding helps them to steer clear of contractual arrangements involving intellectual property which would be likely to run afoul of the competition laws. Thereby a significant source of legal uncertainty and hence business risk is removed.

17. Potential anti-competitive effects from particular uses of intellectual property arise predominantly when an innovating company uses the intellectual property rights which have been granted to it by the state as a basis for entering into contractual relations with other companies. The terms of such contracts may impose restrictions on the parties, or give rights to the parties, which go beyond the general right to exclude competitors granted by the intellectual property right itself. Licensing contracts are the prime case in point.

18. Examples of such contractual terms are the following: non-assertion clauses, grantbacks, tying, and bundling.

19. Non-assertion clauses stipulate that the parties to the agreement will not enforce their respective exclusionary rights against each other. They may be an efficient, pro-competitive solution to eliminate the risk of costly litigation. They may give rise to competitive concerns if used to pre-empt challenges to patents of questionable validity.

20. Grantbacks are clauses which stipulate that the licensee will give the licensor a license to use any follow-on inventions which the licensee may make based on the licensed technology. They may be an efficient, pro-competitive solution in situations where the success of the licensee's business, and hence his ability to pay royalties to the licensor, depends on successful follow-on innovation. They might have anti-competitive effects if the licensor was able to use them to extend his market power beyond the term of the original patent.

21. Tying and bundling are contractual arrangements where a license is granted conditional on the licensee either also licensing other intellectual property or buying a product or a service from the licensor. An example would be a computer with pre-installed copyrighted software, where the price of the computer includes a royalty for the software license, so that a consumer can buy the computer only by also licensing the software. Tying and bundling may raise competitive concerns to the extent that the owner of the tying product may be able to extend his market power to the market for the tied product.

22. The preferred approach to assess the competitive effects of the above (and other) uses of intellectual property is the so-called *rule of reason*, under which the actual impact of a particular use of a given intellectual property right on the strength of competition in the relevant market is assessed on a case by case basis.

23. Under the rule of reason approach, the competition authorities or the courts consider both pro- and anti-competitive effects which a particular use of intellectual property may entail, and they consider these effects in a dynamic perspective, i.e. taking into account also effects on innovation and on the intensity of competition in the future.

24. The main motivation for and advantage of the rule of reason approach is that it reflects the general principle that intellectual property rights, and licensing agreements, are normally considered to be pro-competitive, and that authorities should intervene only when it can be documented that competition is actually being harmed.

25. There are some exceptions to the application of the rule of reason principle. In most jurisdictions, licensing agreements which directly fix product prices or divide up markets between competitors will be considered anti-competitive *per se*. Relatedly, arrangements where the owner of a piece of intellectual property agrees to pay another company not to enter the market and not to challenge the intellectual property in court would be likely to be found anti-competitive. Under a *per se* rule, the authorities will intervene in these and similar cases without first analysing whether competition in the relevant market has in fact declined.

26. In some jurisdictions, tying arrangements are also considered anti-competitive *per se*, if it can be shown that the licensor indeed possesses market power in the market for the tying product.

27. Another important case where intellectual property uses may be considered anti-competitive is cases of so-called abuse of a dominant position resulting from fraud on the intellectual property office, i.e. cases where an intellectual property right has been obtained illegitimately, and where, therefore, any market power gained on the basis of this intellectual property right is considered abusive.

28. The general preference for the rule of reason approach notwithstanding, it should be noted that the decisions reached using this approach will only be as good as the analysis of market conditions competitive effects which underlies it. A rule of reason analysis requires good data on the relevant market, as well as a good understanding of how a given contractual arrangement involving intellectual property affects market outcomes, both immediately and in the longer term. Conducting such analyses requires skill and experience, and can be costly and time-consuming. For countries where competition cases involving intellectual property are still rare or where market and company data may be of relatively low quality, it may be difficult to build up the expertise required for sound rule of reason analyses and to justify the costs. Under such circumstances, *per se* rules defining certain intellectual property uses as anti-competitive without further analysis may be justifiable as a transitional policy until data and expertise have improved.

## V. How to Ensure Balance between Competition and Intellectual Property Policy in Favour of Innovation-based Competition

29. Competition policy and intellectual property policy share the goal of promoting innovation. Yet certain uses of intellectual property rights may negatively affect the intensity of competition in a given market, just as unfettered competition might do. The question of appropriately balancing competition and intellectual property law and policy is therefore a constant policy challenge. As a general principle, intellectual property policy should focus on the appropriate width, depth and length of protection, i.e. on ensuring that the scope of the exclusive rights granted by the state to inventors is conducive to providing incentives for innovation without compromising competition. Competition policy should focus on preventing abuses of intellectual property rights, i.e. on cases where intellectual property rights are used in such a way as to confer market power that goes above what such rights would normally confer.

30. There has been a trend at leading intellectual property offices of increasing numbers and complexity of patent applications and grants, particularly in information and communication technologies. To some extent this increase in patenting reflects an increase in innovative activity. However, it may also raise concerns from the point of view of competition and innovation policy.

31. One concern is that the resources available to patent offices to review and assess patent applications may not keep pace with the increase in applications. As a result, the

quality of the review process may suffer, and more patents of dubious validity may be granted. The normal mechanism in the patent system to ensure quality is litigation: those patents which turn out to be commercially significant are likely to undergo a second review process in court, when their validity is challenged by competitors. However, this self-correcting mechanism is not costless. If the average quality of granted patents declines, litigation and its attendant costs increase, and the uncertainty of patent holders about the validity and quality of their patents increases as well.

32. A proliferation of patents of dubious validity in a given field can open the door for so-called non-practicing entities to extract payments from innovative companies by threatening to sue them for patent infringement. Innovative companies are vulnerable to this threat because litigation might result in preliminary injunctions which would prevent them from marketing their products while the litigation is going on, causing debilitating commercial losses. Non-practicing entities are not deterred by this because they are not marketing any products.

33. From an intellectual property policy point of view, patent offices should respond to any problems of poor patent quality and uncertain patent validity by investing in improving examinations and opposition procedures and by ensuring that novelty, inventive step and industrial applicability criteria provide adequate thresholds against excessively vague or broad patent grants.

34. From a competition policy perspective, vigorous market competition can make an important contribution to ensuring patent quality because where competition is strong, patents are more likely to be challenged in court by competitors, and invalid patents are struck down.

35. There is also concern that the increase in patenting may reflect not so much accelerating innovation, but increasing tendencies to use patents strategically, including possibly to gain illicit competitive advantages by blocking or deterring other innovators.

36. A proliferation of patents in a given technology field can create so-called patent thickets which greatly restrict the freedom of innovative companies. The cost and time needed to search for possible “blocking” patents relating to a given technology, and of obtaining licenses for such patents before moving forward with one’s own research and development may deter innovation.

37. A related potential problem arises when, as is frequently the case, the manufacturing of a new product requires access to several or even many patents on complementary technologies owned by many different companies. To the extent that these patents are essential, their owners may all feel that they should be entitled to disproportionate royalties since without their patent, the product could not be made. As a result, the sum of the royalties being asked may drive up costs for the would-be manufacturer to the point where the new product is no longer viable (“royalty stacking”).

38. Where the number of patent owners involved is not too large, such hold-up problems can often be avoided through cross-licensing agreements, where the parties involved agree to license to each other all the relevant technologies, possibly even free of charge. Where large numbers of patentees are involved, patent pools may provide solutions, where all relevant patents are put together and are made available for licensing as a package.

39. But cross-licensing agreements and patent pools may give rise to anti-trust problems of their own if the members to the agreement or the pool collectively refuse to license their technologies to non-members, or only offer licenses on terms that are not considered to be fair, reasonable and non-discriminatory (FRAND), thereby preventing non-members from competing on a level playing field in the markets in which the members are active.

40. This problem is particularly salient when the patent pool forms the basis for an interoperability standard or platform technology, on which future innovations are to be built. From a policy point of view, the challenge is to determine what should be considered fair, reasonable and non-discriminatory terms. The answer will have to be given on a case-by-case basis as a function of the characteristics of the underlying technologies, the market potential of the goods or services to be produced, and the strength of the intellectual property rights involved.

41. A particular challenge in managing essential intellectual property in standard setting processes is that many standards aspire to global acceptance and validity, whereas intellectual property rights are national, and their validity may vary depending on the jurisdictions for which protection has been sought.

42. The International Telecommunications Union, one of the major international standard setting bodies, has developed a common patent policy and related guidelines as well as guidelines on software copyright and on trademarks, service and certification marks to foster fair competition among standard users.

43. The potential damage of hold-up problems to competition can be reduced if courts do not automatically grant injunctive relief, i.e. if they do not block competitors from using the contested intellectual property while the case is being argued.

44. Competition authorities may also have to take the potential for patent-related hold-up problems into account when assessing mergers and acquisitions between innovative companies.

45. A relatively new phenomenon related to the increase in patenting in some key technology sectors are so-called “patent wars”, where major technology companies engage in bidding contests for patent portfolios of insolvent companies with the aim of accumulating patents for strategic litigation against competitors. There is a concern that this might change the nature of patents from a “shield” that protects innovators against imitating competition into a “weapon” that strikes at innovation-based competition. There is as yet no established international good practice on addressing this concern.

## **VI. Main Conclusions and Policy Recommendations**

46. Competition law and policy on the one hand, and intellectual property law and policy on the other hand, are aligned in their goal of promoting innovation. But certain uses of intellectual property rights may weaken competition, and unfettered competition may weaken innovation. Using the tools of competition law and intellectual property law in a balanced way in the interest of promoting innovation is therefore a constant policy challenge.

47. The following good practices and recommendations might usefully guide policy in this area:

(a) The general presumption in competition law should be that intellectual property is not per se anti-competitive. Intellectual property rights do not always confer market power, and when they do, this is in principle desirable as an incentive for innovation and innovation-based competition.

(b) Intellectual property rights uses may give rise to competition concerns in particular when they create rights or obligations that go beyond those normally conferred by the underlying intellectual property right, or when intellectual property rights are either infringed or obtained illegitimately. This should be the focus of competition policy.

(c) For the purposes of assessing possible anti-competitive effects of intellectual property, competition law and policy can apply the same principles as are applied to assess the possible anti-competitive effects of other types of property.

(d) Leading competition authorities assess the competitive effects of intellectual property uses predominantly case by case based on evidence on the actual impact of a particular use of a given intellectual property right on the strength of competition in the relevant market (rule of reason approach).

(e) They consider as per se anti-competitive only contractual arrangements which amount to direct price fixing or market sharing, and dominant market positions derived from intellectual property rights which were fraudulently obtained.

(f) Issuing detailed guidelines on the principles underlying competition policy and its enforcement is a good way for competition authorities to assist companies in avoiding contractual arrangements involving intellectual property rights which would likely be considered anti-competitive and thereby preventing competition problems before they arise.

(g) A proliferation of low-quality intellectual property rights of dubious validity can open the door to anti-competitive scam litigation practices. It is the responsibility of intellectual property offices to ensure the integrity of the patent granting process. Vigorous market competition can also contribute to maintaining patent quality because it encourages court challenges to strike down invalid patents.

(h) Cross-licensing and patent pools can be an efficient pro-competitive response to the problem that many innovative products require the combinations of large numbers of patented technologies belonging to large numbers of different owners. Competition authorities need to ensure that the members of these arrangements do not unduly block competition from innovative non-member companies, and that the intellectual property included in the arrangement is made available on fair, reasonable and non-discriminating terms. What these terms should be can be determined only on a case-by-case basis.

(i) Unfair competition laws, which are designed to protect customers from business practices intended to mislead them, can be applied to cases of trademark or industrial design infringements, and can thus complement intellectual property law in the enforcement of intellectual property rights.

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