Chapter 11
Licensing Terms for IoT Standard-Setting:
Do We Need "End-User" or "License for All" Concepts?

Matt Heckman
Zuyd University of Applied Science, The Netherlands & Maastricht University, The Netherlands

ABSTRACT

The development of 5G and IoT standards requires an active participation of small and medium-sized companies (SMEs). These SMEs do not always have the resources and expertise to participate in the work of standard development organizations (SDOs). The valuation of the patents in standards can be based on "license for all" or "end-user" concepts. A specific choice for use-based licensing terms by an SDO might drive SMEs more towards standard-setting in consortia. The chapter will discuss the competition law aspects of both licensing concepts for SMEs and the recent communication in this field by the EU Commission.

INTRODUCTION

The intersection of standard setting, IPRs and competition law has become more and more complex in recent years. In a way, standards have some of the same characteristics as IP rights. From an economic perspective, they both produce increased welfare through product improvement, not a process which decreases the marginal costs of the product. Standardization increases the societal value by improving both the horizontal and vertical compatibility of products and thereby also creating a downstream market. Standardization also makes products available at a fair price to producers and consumers. This standardization eco-system strongly depends on the willingness of companies (e.g. SMEs) to participate and share their proprietary solutions. The management of standardization and the treatment of intellectual property rights is therefore a crucial factor in the decision-making process of companies. Research shows that the IPR-policies of standardization bodies is a crucial element for the decision whether to invest and participate in standard setting activities.

DOI: 10.4018/978-1-5225-9008-8.ch011

In the present standard-setting environment, patents are still a predominant feature, despite the rise of open source development. Companies like IBM publicly favour open source development of their technology but they carefully administer and manage their patent portfolios. A patent portfolio illustrates the innovativeness of a firm and can be reflected in a specific marketing policy. The use of patents in a proposed standard can suggest and underline the exclusivity of the related product or service and can directly exclude competitors from using the standard. More importantly, patents are used as trade tools to do business with competitors via cross-licensing. The role of patents in a standard-setting context is of growing concern for competition authorities. A patent will automatically involve a certain amount of coordination between the patent holder and the implementer of the technology. The high number of patents in a standard will automatically lead to intense contacts between various firms in different stages of the commercialization of products and or services. Some scholars argue that a patent licensing agreement constitutes by nature a settlement of a dispute on intellectual property rights. The licensing agreement royalty rate is heavily influenced by the technical ability of the licensee to develop possible alternative technologies. If the licensee can use alternative technologies, this reduces his dependence on the patents of the licensor. Even the instrument of cross-licensing, which is very common in the standard- setting process, is dictated by the weight of the respective IP portfolios of the different participating companies. The economic value of the IPRs in mergers and acquisitions and the strategic management thereof also requires careful consideration.

The intersection of standard setting, IPRs and competition law has become more and more complex in recent years. In a way, standards have some of the same characteristics as IP rights. From an economic perspective, they both produce increased welfare through product improvement, not a process which decreases the marginal costs of the product. Standardization increases the societal value by improving both the horizontal and vertical compatibility of products and thereby also creating a downstream market. At the same time, standard setting facilitates exclusion (a common feature of patent rights) and collusion. As a result, antitrust authorities should identify the circumstances that lead to anticompetitive effects of the use of standards and pay special attention to these circumstances, possibly addressing them through their regulatory frameworks.

PATENTS INCLUDED IN STANDARDS AND COMPETITION LAW CONCERNS

The registered patent gives the patent owner the right to exclude others from using his technology. The patent owner can give other firms access to his inventions via the method of licensing. Licensing can create more revenues for the patent owner and leads to increased diffusion and dissemination of the innovative goods. The economic impact and contribution to competitiveness is mostly determined by the licensing terms. Patent owners can license individual patents or, more often, use package deals which offer a lower royalty fee than the total sum resulting from all the individual pa- tents. Two or more firms holding substantial IP portfolios (or even a firm just holding one essential patent to the technology), use cross-licensing to exchange their valuable IP-assets. In the case of cross-licensing, all companies are entitled to use each other's patents, often without charging any reciprocal royalties.

From the perspective of competition policy enforcers, this is almost ideal, since there is dissemination and diffusion of the patented technology without any increase in the marginal costs of the firms involved. At first sight it looks like cross-licensing should not involve any antitrust concerns, but in the case of