I. Introduction

Technology standardization, if properly performed, leads to benefits, both to the economic system and to the consumers. Technology standards reduce the transaction costs of modularity, foster specialization and division of labour, promote competition of inventors and producers within standards.[1] However, due to the fact that, usually standards are protected by patents (standard-essential patents (SEPs)), standardization weakens competition and creates entry barriers into the market for those undertakings, which do not own SEPs, and even for SEP owners themselves.

Such situation inevitably causes tension between intellectual property law and competition law that, in general, share the same objectives of promoting innovation and enhancing consumer welfare. Indeed, in order to keep the balance between the afore-specified goals, the standard-setting organizations (SSOs) come into play by requiring SEP owners to license SEPs on fair, reasonable and non-discriminatory (FRAND) terms. However, such an attempt to provide implementers with the right to use SEPs while satisfying the financial interests of the SEP owners, quite often leads to extensive litigation before the courts, where such questions as, what are the FRAND-compliant licensing terms for a concrete SEP or whether it is possible to apply an injunctive relief, are raised.

The above-described situation, due to the constantly growing importance of standards, calls for a solution. In general, when the standardization process before the SSOs takes place, it seems that it is a matter of the whole industry sector: usually a large number of participants of specific sector are taking part while choosing the most suitable technology. However, once a standard is established, all the SEP-related issues are left for the private companies to resolve on their own, or, if there is a dispute, they are being heard by the courts. The latter usually have neither the essential technical and economic expertise,[2] nor the understanding of the standardi-

1 Daniel F Spulber, ''Innovation Economics: The Interplay Among Technology. Standards, Competitive Conduct, and Economic Performance' [2013] 9 (4) Journal of Competition Law and Economics 777, 825.

2 For example, while deciding upon the standard of the availability of the injunctive relief in SEP litigation, one is able to choose from a variety of economic theories, which might be in conflict with one another. This shows, that not only legal

zation procedures in depth and, thus, are often incapable of reaching decisions, which would keep the balance between the rights of the SEP owners and the users by guaranteeing legal certainty for both parties in an efficient time frame.

Although, as it is claimed, standardization already existed two thousand years ago,[3] the importance of this phenomenon, due to scientific and technological development, emerged at around 1990s.[4] Since then, there is an extensive amount of literature, studies, reports and other different types of documents, which provide us with the analysis of standardization from legal, economic or technical point of view. Despite the attention, that this topic receives in the last years, standard-setting and implementation of standards in the industry remains an actual topic. This could be illustrated by the statements of the European Commission (Commission), according to which, standardization is understood as one of the main tools 'to create growth and jobs in a smart, sustainable and inclusive way'.[5]

When speaking about standard-setting, it should be understood, that the standardization procedure concerns not only agreeing upon a technology standard. Such procedure also comprises the actions of making the *standard work*, making it *available* and *useful* for the whole industry. This requires a standard to be spread to all the participants of a specific sector, and such proliferation could be performed by licencing SEPs, which usually protect the standardized technology. However, taking into consideration the case law regarding SEPs' licensing matters in the light of FRAND, it is clear that courts lack the necessary technical and economic knowledge to make decisions effectively and to provide the users with an access to the standard. Accessing a specific standard may be crucially important to any company, because even a temporary exclusion from fast-

but also technical or economic knowledge is required in SEP-related litigation. Please see: Nicolas Petit ''Injunctions for Frand-Pledged Standard Essential Patents: The Quest for an Appropriate Test of Abuse Under Article 102 TFEU' [2013] 9 (3) European Competition Journal 677, 700.

3 Andrew L Russell ''Standardization in History: A Review Essay with an Eye to the Future' in Sherrie Bolin (ed), *The Standards Edge: Future Generations* (Ann Arbor, MI: Sheridan Press 2005) 247-260, 247.

4 Joseph Farrel, ''Standards and Intellectual Property' (1989) E-89-25 Working Papers in Economics, <http://hoohila.stanford.edu/workingpapers/getWorkingPaper.php?filename=E-89-25.pdf.> accessed 11 September 2014.

5 Commission, Communication 'A Stronger European Industry for Growth and Economic Recovery Industrial Policy Communication Update' COM (2012) 582 final.

moving technology markets is able to cause serious harm to the business of market participants.[6] In failure of such access, the balance between the rights of the owner and the users of SEPs is not kept. For this reason, SSOs, at least to some degree, should step in, while helping to solve the SEPs' licensing disputes in the stages that take place after the standard is set.

With regard to all the specified above, a part of the proposals, which may lead to a less extensive litigation regarding the licensing of SEPs, if implemented, could be an obligation of a SEP owner, that in those cases when a SEP holder and the user cannot agree on the licensing terms, including the royalty rates, the dispute will be solved by a special royalty setting body attached to a SSO. In addition, there is also a number of voices calling for the use of arbitration to resolve disputes concerning SEPs.[7] Indeed, both proposals, if implemented, may lead to cost and time savings over the lengthy, recourse-intensive and multi-jurisdictional lawsuits that currently characterize SEP and FRAND-related disputes. In this case, when implementing these two solutions, SSOs and their internal documents governing the standardization procedures as well as the rights and obligations of SSO members may play an important role.

In this work, the possibilities of improving licensing mechanism of the SEPs by referring such disputes to alternative dispute resolution bodies with the help of SSOs, after the standard is set, and the legal issues arising in such situations will be analysed. For the purposes of achieving the afore-specified objective, the main tasks of this work would be the following:

1. To analyse the process of standardization within the SSOs.

2. To analyse the issues, which occur in the standardization proceedings and after the setting of the standard, that lead to the extensive litigation regarding the licensing of SEPs.

3. To analyse the role of SSOs in the SEPs' licensing processes by encouraging the referral of SEP licensing disputes to alternative

6 *Google/Motorola Mobility* (Case COMP/M.6381) Commission Decision [2012] OJ c 75, para 107.

7 Jorge J Contreras and David L Newman ''Developing a Framework for Arbitrating Standards-Essential Patent Disputes', 4/21/2014 Journal of Dispute Resolution (2014), 1 (forthcoming).

dispute resolution bodies and discuss the main competition law and institutional issues that may arise in connection with this type of dispute resolution.

The afore-specified aspects will be discussed from the perspective of the European Union (EU) legal framework.