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PATENT LAW PROVISIONS THAT CONTRIBUTE TO EFFECTIVE TRANSFER OF TECHNOLOGY, INCLUDING SUFFICIENCY OF DISCLOSURE

Document prepared by the Secretariat

1. The Standing Committee on the Law of Patents (SCP), at its thirtieth session, held in Geneva from June 24 to 27, 2019, agreed that the Secretariat would continue to compile information on patent law provisions that had contributed to effective transfer of technology, including sufficiency of disclosure. On this subject, Member States shared such information and their experiences during, in particular, the twenty-seventh and twenty-eighth sessions of the SCP, held in December 2017 and July 2018, respectively. In addition, documents SCP/29/6 and SCP/30/8, containing the compilation of further information on that subject, were submitted to the twenty-ninth and thirtieth sessions of the SCP, held in December 2018 and June 2019, respectively.[1]

2. This document follows the style of the previous documents on the same subject. It presents, on a country by country basis, a summary of the information received from Member States, in response to Circular C. 8893, dated July 17, 2019. It contains not only the specific legal provisions under the patent law but also technology transfer law as well as practical tools, programs and initiatives, which are based on, or promote the use of, such legal provisions.

[1] As to practical examples of patent-related transfer of technology, see also documents SCP/18/8 (Patents and Transfer of Technology: Examples and Experiences), SCP/20/10 (Patents and Transfer of Technology: Further Practical Examples and Experiences) and SCP/21/10 (Patents and Transfer of Technology: Further Practical Examples and Experiences). In addition, during the twenty-third session of the SCP, held in Geneva in November 2015, the Committee discussed the topic of transfer of technology vis-à-vis sufficiency of disclosure.

3. As to the legal provisions under the patent law *per se*, the following provisions were addressed in the Member States' submissions: sufficiency of disclosure; contents of patent applications; publication of patent applications and patents; licensing and transfer of patent rights, including registration; and mechanisms to incentivize voluntary licensing.

Australia

(a) Australian patent law provisions on technology transfer

4. Subsection 40(2)(a) of the Australian Patents Act 1990 requires that applicants must disclose their invention in a manner which is clear enough and complete enough for the invention to be performed by a person skilled in the relevant art.

5. Patent licences contribute to effective technology transfer and are often involved when establishing a joint venture or a collaborative partnership. Patent licences are also typical in consortium arrangements and sponsored research agreements. The Patents Act 1990 does not specify any formalities that must be satisfied for a patent licence to be valid and enforceable. However, as a matter of commercial practice, the terms of a patent licence are typically set out in a written document executed by the parties to the agreement.

(b) Australian patent office (IP Australia) initiatives that facilitate technology transfer

6. If innovation is to be fully effective, it is crucial to ensure that new technology is incentivised and reaches the market. This can be difficult to achieve, and hence it is important to ensure patent protection is in place and to have initiatives to facilitate commercialisation. Effective technology transfer can be facilitated through collaboration and establishing strong links between researchers and industry. Benefits of collaboration can include sharing of knowledge, research insights, improvement in methodologies, identifying opportunities for future research and improved market growth, all of which lead to better results in technology transfer and support cooperative or competitive downstream innovation. IP Australia has developed several initiatives to support technology transfer.

IP Toolkit

7. With the assistance of the Department of Industry, Innovation and Science, the "IP Toolkit" was developed to simplify the management of IP in collaborations between researchers and business. Collaborations can involve complexity in managing the interrelationships between confidentiality, use of existing IP, publication of information, commercialisation and decision making around IP rights. The toolkit gives users the information and tools to identify issues early on and build effective partnerships. The toolkit includes: (i) a collaboration checklist covering the key issues that need to be considered; (ii) contract, confidentiality agreement and term sheet templates; and (iii) guidance and information to help collaborating parties manage their IP.

Source IP

8. Source IP connects businesses with Australian public-sector research organisations who have patented technology available to license. It facilitates potential collaboration opportunities between businesses and public-sector research bodies. Launched in November 2015, it is particularly focuses on making it easier for businesses, including micro, small and medium businesses, to access innovation and technology generated by the publicly funded research sector in Australia. The platform allows Australian patent holders to include additional information about their patents, such as potential uses and advantages, to promote the technology and initiate a partnership.

IP NOVA

9. IP NOVA is a visual search engine that helps users discover registered patents, trademarks and plant breeder's rights from IP Australia's database. It is a free, open web app that can be used to search IP data by industry, technology and location. IP NOVA can be used to easily find out which companies are actively protecting IP in specific fields, industries and locations, and help users identify potential collaboration partners.

Costa Rica

10. With respect to the requirement of sufficiency of disclosure, pursuant to Article 6(4) of Law No. 6867 on Patents, Industrial Designs and Utility Models: The description shall specify the invention *in a sufficiently clear and complete manner*, so as to enable its evaluation and so that a person skilled in the corresponding technical matter may carry it out *and, in particular, shall expressly indicate the best manner, to the applicant's knowledge, of executing the invention*, giving one or more specific examples where possible, and identifying, where appropriate, the manner that would give the most satisfactory results in its industrial exploitation (emphasis added).

11. In this regard, paragraph 7 of the Regulations under Law No. 6867[2] lists the elements to be contained in the description, such as: (i) the title of the invention; (ii) the technological sector to which the invention refers or to which it applies; (iii) description of the invention in terms of its technical problem and solution as well as advantages of the invention; (iv) brief description of drawings, if any; (v) the best mode envisaged by the applicant to execute or put into practice the invention; and (vi) the manner in which the invention is susceptible of industrial application and it may be produced and used, if it is not obvious from the description and nature of the invention. It also states that the description indicates generic names, international names or the International Nonproprietary Names established by the World Health Organization, if any, or those names under which the invention is known in other countries.

12. The patent system has two objectives: (i) to protect the rights of the inventor/owner; and (ii) increase society's scientific and technological assets. Although patents grant their owners the exclusive right for a specific period, the patents are a source of technological information upon their publication.[3] In exchange for this exclusive right, the owner must describe his invention in a sufficiently clear and complete manner for an average person skilled in the art to be able to execute the invention. Once the patent is granted, a summary of the patent is also published.[4]

13. The sufficiency of disclosure presupposes two important aspects. The first is, as part of the foundation of the invention, the possibility that what has been described may actually be executed and solve a technical problem. The second is that the contribution that this invention may make to technology and therefore to the constant improvement in a given technological sector may be efficiently evaluated by others. These provisions of national law promote the transfer of technology through the patent document, which contains a theoretical and practical description of the invention and includes examples and drawings of the invention.

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2 Amended by Article 1 of Executive Decree No. 38308 of February 12, 2014.
3 Article 10(4) of Law No. 6867.
4 Article 15(4) of Law No. 6867 and Article 22(3) of the Regulations.

Ecuador

14. The Organic Code of the Social Economy of Knowledge, Creativity and Innovation (COESCCI) makes various legal provisions that promote the transfer of technology and the strategic use of intellectual property rights to promote the transfer of technology, the development of science, technology, innovation and advancement of the country's production infrastructure. It also promotes the flow of information and technology transfer between the stakeholders of the national system of science, technology, innovation and ancestral knowledge.

15. Specifically, Article 23 states that technology transfer centers are strategic facilities created *inter alia* by research centers, public enterprises or institutions of higher education, which conduct research aimed at the reception and practical utilization of scientific knowledge, the disaggregation and transfer of technology, mainly for the preparation or development of a good or service. Article 24 defines public research institutes as entities with administrative and financial autonomy whose purpose is to plan, promote, coordinate, implement and promote scientific research processes, and to generate, innovate, validate, disseminate and transfer technologies. All public research institutes must have a structure and regulation that allows their proper functioning in terms of research, technological development and technology transfer. They are responsible for, *inter alia*, generating innovation, development and technology transfer processes.

16. Article 81 stioulates that technology transfer includes activities to transfer knowledge, techniques or technological processes that allow the manufacture of products and the development of processes or services. It includes contractual agreements such as proof of concept, technological validation, transfer of intellectual property rights, licensing of intellectual property, know-how contracts, training and recruitment of national labor. It shall be incorporated as a requirement in the public procurement of goods, works and services, including consulting, and in investment contracts and any other form of procurement undertaken by the State, except where duly justified in accordance with the policy issued for that purpose. In such processes, specific parameters and qualification criteria may be laid down for those bidders willing to make greater technology transfer commitments according to the methodology defined by the Government for this purpose. Prioritizing the strategic sectors and those of public interest, the public policy, shall determine the minimum levels and mechanisms of technology transfer that will be required in the contracts made by the State, according to technical, economic and legal parameters, which shall be issued and updated in coordination with the various public entities on an annual basis. According to the policy issued by the relevant governing body, the State may establish market reserves in public purchases for products and services with high technology from suppliers of Ecuadorian origin.

17. In addition, the twenty-eighth General Provision in COESCCI states that in order to build national technology transfer capacities, degree courses or academic programs taught by higher education institutions may be oriented to the reproduction or search for a second use of patents.

18. Furthermore, the sufficient disclosure of an invention contained in a patent application, which ensures the reproducibility of the invention by a person skilled in the technical field, is important for the transfer of technology. Thus, COESCCI states in Article 280 that the description must be sufficiently clear and complete to enable a person trained in the corresponding technical field to carry it out without requiring undue experimentation.

19. The Ecuadorian regulations recognize technology transfer as a mechanism to promote research and create a mechanism for the development of knowledge and innovation ecosystems, this being the responsibility of the Ministry of Higher Education, Science, Technology and Innovation (SENESCYT). However, the National Service of Intellectual Rights

(SENADI) has made efforts to render the patent system more efficient and to require clarity and sufficiency of disclosure in patent applications received as a contribution to national technology transfer.

Germany

(a) Provision of information to the public about patent applications and patents

20. A patent application shall be published within 18 months from the filing date or the priority date, at the latest, within the framework of the first publication of the patent application (*Offenlegungsschrift*) unless, in an exceptional case, the invention must be kept secret within the meaning of Sections 31(5) and 50 of the Patent Act.[5] The *Offenlegungsschrift* contains, *inter alia*, the patent claims contained in the patent application, the description of the invention and the drawings referred to in the patent claims or the description. The purpose of the publication of the *Offenlegungsschrift* is to enable the public to obtain early information on potential future IP rights. From this date at the latest, as a rule, the case file relating to the patent application will be available for inspection by any person, provided that it is not precluded by a legal provision or that no interest meriting protection of the data subject within the meaning of Article 4, No. 1 of the General Data Protection Regulation obviously prevails.[6]

21. Upon grant of the patent, a patent specification (*Patentschrift*) shall also be published,[7] which contains the patent claims, the description and the drawings, among other things. In addition, the *Patentschrift* indicates the state of the art that the DPMA has taken into consideration for assessing the patentability of the invention applied for.

22. All essential information on published patent applications and granted patents is entered in a Register maintained by the DPMA.[8] In particular, the Register contains bibliographical information and legal and procedural status data on published patent applications and patents. Any person may inspect the Register.[9] Overviews regularly appearing in the Patent Gazette[10] provide information on the Register entries. The *Offenlegungsschriften* and the *Patentschriften* as well as the Patent Gazette may also be published in electronic form.[11] The information published in the publications of the DPMA may also be transmitted to third parties in electronic form for further processing and use of patent information.[12]

23. The DPMA informs the public about patent applications and patents through their publication and search services on the Internet. DPMAregister, the DPMA's free publication and register database, provides online access to the register data with current legal and procedural status information on patent applications and patents and makes the official publications (*Offenlegungsschrift*, *Patentschrift* and Patent Gazette) available. The database offers comprehensive and complex search options and thus contributes substantially to making technical knowledge searchable. In addition to linking the detailed description of the inventions in the *Offenlegungsschriften* and *Patentschriften*, the database also contains information on the scope and validity of patent rights as well as bibliographical data of the inventor, patent

5 Section 32(1), first sentence, No. 1, and (2) of the Patent Act (Patentgesetz) in conjunction with Section 31(2) of the Patent Act.
6 Section 31(2) and (3b), Patent Act.
7 Sections 32(1), first sentence, No. 2 and (3), 58(1), Patent Act.
8 Section 30, Patent Act.
9 Section 31(1), second sentence, Patent Act.
10 Sections. 32(1), first sentence, No. 3 and (5), 58(1), Patent Act.
11 Section 32(1), second sentence, Patent Act.,
12 Section 32(1), third and fourth sentences, Patent Act.

applicants and patent proprietors. Thus, the database not only makes detailed technological knowledge available to others, but also provides the opportunity to identify to what extent technological knowledge may be freely used or from whom it may possibly be acquired through licensing agreements or the transfer of rights.

24. In addition, *Offenlegungsschriften* and *Patentschriften,* together with other patent publications from all over the world, are made available in the free DEPATISnet database. The database offers an extensive source of technological knowledge. It makes an essential contribution to the dissemination of technological knowledge, in particular through the detailed search options within the extensive data records.

25. Via the data supply services of the DPMA (DPMAdatenabgabe, DPMAconnect, DEPATISconnect), the DPMA, as far as possible, also transmits the information published in the publications of the DPMA to third parties who may use it to establish, develop and update their own IP databases and other information systems and services. By supplying data for integration into third-party systems and services, the DPMA simplifies and supports the dissemination and use of German IP information and technological knowledge.

(b) Requirements for disclosure of the invention

26. Pursuant to Section 34(4) of the Patent Act, the invention must be disclosed in the application in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. An invention is disclosed in a workable manner when the information comprised in the patent application conveys to the skilled reader so much technical information that, with his technical knowledge and skills, he is able to successfully carry out the invention.[13] The requirement of clear and complete disclosure does not require the description to contain information on how to achieve all conceivable variants covered by the functional definition. It is sufficient if it provides at least one way of carrying it out to the skilled person.[14] On the basis of the application, without any inventive effort of his own, the skilled person must be able to complete missing elements and, if need be, obtain clarity by means of orientation tests.[15]

(c) Transferability and licensing of patent rights

27. Section 15(1), second sentence, of the Patent Act clarifies that the right to the patent, the entitlement to the grant of the patent and the right deriving from the patent may be transferred to others, with or without limitation. Section 15(2), first sentence, of the Patent Act adds that these rights can, in full or in part, be the subject of exclusive or non-exclusive licenses.

28. According to Section 23, patent proprietors who are interested in the exploitation of their inventions and the transfer of the knowledge contained therein can express their willingness to technology transfer by submitting a declaration of their willingness to grant a license. This declaration, which should be submitted to DMPA, constitutes a binding offer to allow anyone to use the invention in return for equitable remuneration. The binding declaration on the willingness to grant a license is recorded in the Register and published in the Patent Gazette.[16] This encourages the potential exploitation of patent rights and thus a possible technology transfer. As an incentive for making such a declaration, Section 23(1), first sentence, of the

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13 Bundesgerichtshof, judgment of July 13, 2010, ref: Xa ZR 126/07, GRUR 2010, 916, Klammernahtgerät/stapler.

14 Bundesgerichtshof, judgment of 16 June 2015, ref: X ZR 67/13, Patentfähigkeit eines Übertragungspapiers für Tintenstahldrucker/Patentability of a transfer paper for inkjet printer.

15 Bundesgerichtshof, judgment of 13 July 2010, ref: Xa ZR 126/07, GRUR 2010, 916, Klammernahtgerät/stapler.

16 Section 23(1), second sentence, Patent Act.

Patent Act provides for a reduction by half of the annual fees that become due after receipt of the declaration. In addition, the proprietor can make a non-binding declaration of being interested in licensing. By making a declaration of being interested in licensing, the patent proprietor shows that he is interested in licensing the invention. However, it does not constitute an obligation on the patent proprietor to license the invention, but is merely intended to inform potential licensees. In the case that the patent is granted, the declaration is recorded in the Patent Register and published in the Patent Gazette. It can be revoked any time and does not affect the amount of the annual fees.

(d) Information on the DPMA website

29. The website of the DPMA contains a wide range of information on its website for users of the patent system and the interested public in order to contribute to effective technology transfer, for example: (i) cooperation with patent information centers;[17] (ii) cooperation with the Chamber of Patent Attorneys;[18] and (iii) special information for SMEs, also containing information on advice, support and funding opportunities[19].

Slovakia

30. Pursuant to Articles 25 and 26 of Act No. 435/2001 Coll. on patents, supplementary protection certificates and on amendment of some acts as amended (hereinafter “Patent Act”) an applicant or a patent holder may file a statement with the Industrial Property Office of the Slovak Republic (hereinafter “Office”) to the effect that he/she is prepared to allow any person to use the invention as a licensee in return for appropriate consideration. Based on a request by the applicant or patent holder, the Office enters the license offer into the Patent Register and publishes the offer on its webpage[20]. A person who accepts a license offer and communicates it in writing to a licensor and to the Office shall obtain a right to exploit an invention. Such a license shall be considered as a contractual, nonexclusive license, concluded for the indefinite time and valid within the territory of the Slovak Republic. A license offer may be withdrawn until a written statement about acceptance of a license offer is delivered to the licensor. If no agreement on the amount of an appropriate consideration as well as terms of payment could be concluded between the patent holder and a potential licensee, it shall be determined by a court.

31. As regards the requirement of sufficiency of disclosure of the invention in the patent application, Article 37(4) of the Patent Act states that the patent application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

[End of document]

17 https://www.dpma.de/english/our_office/about_us/cooperation/patent_information_centres/index.html.
18 https://www.dpma.de/english/services/customer_care_services/consultation_inventors/index.html.
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